

**UNIVERSITÀ DELLA VALLE D'AOSTA
UNIVERSITÉ DE LA VALLÉE D'AOSTE**



DIPARTIMENTO DI SCIENZE UMANE E SOCIALI

**CORSO DI LAUREA IN
LINGUE E COMUNICAZIONE PER IMPRESA E TURISMO**

ANNO ACCADEMICO 2025/2026

TESI DI LAUREA

**YIELD MANAGEMENT OF LOW-COST AIRLINES:
AN EMPIRICAL STUDY OF EASYJET AND RYANAIR DURING PEAKS OF DEMAND**

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*A mamma e papà,
un grazie non sarà mai abbastanza
per esprimere quanto bravi siete stati ad insegnare fin da subito alla piccola Ceci
che l'amore unico e straordinario di un genitore non si limita a rimanere tra le mura di casa.
Grazie per avermi dato la preziosa opportunità di crescere lontana,
avendo la consapevolezza di poter sempre contare sulla vostra presenza.*

*Alla bambina
che piangeva soltanto all'idea di partire una settimana in estate ragazzi senza i genitori,
che è cresciuta passando i pomeriggi a giocare con le valigie della mamma
senza immaginare che qualche anno dopo sarebbe stata lei a farle continuamente.
La stessa bambina che piange ancora ogni volta che arriva il momento di partire,
può essere fiera della ragazza che è diventata e delle esperienze che ha scelto di vivere.*

*E infine un grazie di cuore
va a tutte le persone che durante questi anni
mi sono state accanto tramite un supporto continuo,
dimostrando che i legami veri superano ogni tipo di distanza fisica.*

Table of contents

<i>Executive summary</i>	5
<i>Chapter 1 - Introduction</i>	7
1.1 The low-cost airline model and its evolution	7
1.2 The role of yield management in modern airline pricing	10
1.3 Objectives of the study	14
<i>Chapter 2 – Literature Review</i>	17
2.1 Theoretical foundations of airline pricing strategies	17
2.2 Price discrimination and fare differentiation.....	23
2.3 Empirical evidence on demand peaks	28
<i>Chapter 3 – Data Collection</i>	36
3.1 Selection of routes and price tracking	36
<i>Chapter 4: Data analysis</i>	39
4.1 Description of outbound fares.....	39
4.2 Description of inbound fares	53
4.3 Comparison between airlines	61
4.4 Fare analysis per km	67
<i>Chapter 5 - Conclusions</i>	70
5.1 Main results.....	70
5.2 Managerial and public policy implications.....	73
<i>Bibliography</i>	75

Executive summary

This thesis investigates the dynamic pricing strategies of low-cost airlines specifically focusing on easyJet and Ryanair during peak demand periods of Italian holidays such as Immaculate Conception, New Year's, Easter, and Labour Day.

Today, these airlines have shifted away from their traditional model toward sophisticated and dynamic pricing systems, a process known as hybridization that takes into consideration different categories of passengers. This approach allows them to simultaneously target leisure travellers, who are highly price-sensitive, and business ones. To maximize revenue for every single flight, airlines rely on yield management, a strategy that constantly adjusts ticket prices based on seat availability, demand elasticity, and the number of days to departure.

This study aims to explore how these mechanisms operate in Europe. The research is based on a unique dataset built by monitoring ticket prices directly on the official websites of easyJet and Ryanair in the period between September 2025 and May 2026.

To capture the structural differences in passenger demand, four specific routes operating out of Milan airports were selected. These include Milan-Tenerife South as leisure routes operated by easyJet from Malpensa and Ryanair from Bergamo; and Milan-London Gatwick (easyJet) and Milan-Manchester (Ryanair) as mixed/business routes.

The empirical findings of the data analysis reveal interesting results regarding how low-cost airlines manipulate prices during these peak periods.

Firstly, price increments during holiday peaks are heavily dependent on the nature of the destination, showing a clear holiday effect. In effect, on the leisure routes to Tenerife ticket prices experience peaks during holidays, frequently costing 300% to 400% more expensive than during regular periods, represented by the week before and the week after the festivity.

On the contrary, on business-oriented routes to London and Manchester, prices remain remarkably stable and often result in negative price premiums.

Another important result concerns the time of booking, in fact prices rise systematically as the departure date approaches, penalizing late bookers. For peak flights, airlines start to alter the price already 70 days before departure, proving that algorithms anticipate holiday demand far in advance since they already know the period of holiday in which demand will increase.

Interestingly, a clear price discrimination is observed between outbound and inbound flights, with flights returning to Milan consistently more expensive than flights leaving Milan during holiday periods. This result derives from the characteristics of travellers who face a very rigid schedule for returning home allowing airlines to exploit this lower price elasticity and raise prices.

Finally, comparing the two airlines on the Milan–Tenerife route highlights distinct strategies, as Ryanair adopts a much more aggressive pricing model with high price dispersion, meaning it keeps fares extremely low during standard weeks but applies high prices during holidays. On the other hand, EasyJet, operating from Malpensa, starts with higher baseline prices but applies fewer peaks.

The analysis of revenue per kilometre proves that business routes generate significantly higher unit revenues for the airline compared to leisure routes, which confirms that business passengers are willing to pay a high price for tickets.

In conclusion, this thesis demonstrates that low-cost airline pricing strategies do not rely on fixed models but are driven by a constant monitoring of booking timing, destination and passenger type.

Chapter 1 - Introduction

1.1 The low-cost airline model and its evolution

In recent years, the airline industry has undergone a profound transformation, gradually moving away from the original low-fare model toward more complex, sophisticated and flexible pricing strategies. This transformation reflects the gradual development of the airline market, where simple pricing rules are no longer enough to deal with more complex demand.

This evolution has been driven by several factors, including market liberalization, technological development, and significant changes in consumer behaviour, which have progressively reshaped the market and how airlines make decisions. As a result, airlines had to rethink their pricing strategies in order to better respond to changing demand conditions.

In its early stages, the low-cost airline sector was primarily focused on offering very low fares to attract highly price-sensitive consumers who were interested in buying tickets while spending as little as possible. This business model was characterized by simple and fixed ticket conditions, such as non-refundable fares, limited route networks with relatively short distances, and minimal onboard services. Tickets were sold almost exclusively online, and secondary airports were often preferred due to lower operating costs and operational simplicity. At this time, the low-cost model aimed to reduce complexity in travel and to allow passengers to fly at the lowest possible price.

Over time, however, passenger demand became increasingly heterogeneous. Travellers began to differ not only in their willingness to pay, but also in terms of travel purpose, flexibility, booking timing, and sensitivity to price changes. This increasing heterogeneity of demand is evident in the clear distinction between leisure and business travel, which surely represents a key point of the empirical analysis developed in this thesis. Leisure passengers travel for pleasure purposes and they are more flexible in fact they may change their departure and return days in response of a change of price, while business passengers use to have strict timing and are less sensitive to price changes.

As a result, airlines started to adapt their strategies to better manage demand, reduce unsold capacity, and maximize their revenues.

An important role in this transformation was played by the liberalization of the market of the airline industry in both the United States and Europe, that has started in the second half of the twentieth century.

The removal of price controls and entry restrictions significantly changed market structures and intensified competition among airline companies. They started operating in an environment characterized by high fixed costs, demand uncertainty, and limited short-term flexibility in capacity. In this context, pricing strategies became a central managerial tool that began to be used with frequency and success by airlines.

During this period, two of the most important low-cost carriers were founded. Ryanair¹ in Ireland in 1984 by Tony Ryan, with the objective of breaking the monopoly of national carriers on routes between Ireland and the United Kingdom. The airline initially operated with a single route between the Irish city of Waterford and London Gatwick, serving a limited market. Subsequently, in the early 1990s, under the leadership of the Irish manager Michael O’Leary the company grew up, adopting a low-cost business model focused on cost minimization and simplified services. This amplification laid the foundation for Ryanair’s role as a pioneer of the low-cost carrier model in Europe.

EasyJet² was founded in the United Kingdom in 1995, with the aim of making air travel accessible to a broader share of the population by offering significantly lower fares than traditional airlines. The company firstly began operations with a single route between London Luton and Glasgow, targeting price-sensitive passengers and business travellers seeking frequent and affordable connections. From the beginning, easyJet followed a low-cost business model focused on simplicity. This model included selling tickets directly, using aircraft as much as possible, and offering basic fares with no additional services included. Unlike traditional carriers, the airline focused on point-to-point routes and efficiency-driven cost control. The liberalization of the European aviation market in the late 1990s enabled easyJet to expand rapidly.

Initially, these carriers introduced a simple and innovative business model based on very low fares and standardized ticket conditions. However, over time, their growth created a complex market environment, characterised by stronger competition and more heterogeneous passenger demand.

¹ “Ryanair,” *Wikipedia, l’enciclopedia libera*, <https://it.wikipedia.org/wiki/Ryanair>.

² “EasyJet,” *Wikipedia, l’enciclopedia libera*, <https://it.wikipedia.org/wiki/EasyJet>.

Gradually, both airlines started to move beyond their original focus on leisure travellers and have increasingly attempted to attract business passengers with a process of hybridization, which led easyJet and Ryanair to adopt several characteristics of traditional or flag carriers, such as greater flexibility, priority services, and differentiated fare structures while at the same time, they continued to preserve key elements of the low-cost model, including low tickets, cost efficiency and simplified operations. As a result, the clear distinction between low-cost and full-service airlines has progressively become less defined.

This new strategy by low-cost carriers aims to serve multiple passenger segments simultaneously; basic fares continue to target price-sensitive leisure travellers, while more expensive and flexible options are designed to appeal to business travellers, who value time, reliability, and schedule flexibility with more importance than the lowest possible price.

A clear example of this evolution is the case of easyJet. The airline, in September 2013 introduced the Inclusive Plus fare, which replaced Flexi fare, specifically to address the needs of business passengers. This fare includes features such as greater flight-change flexibility, priority boarding, seat selection, and a large cabin bag included in the ticket purchased. These services resemble those traditionally offered by flag carriers and are particularly attractive for business travellers.

As a consequence, low-cost airlines progressively shifted toward more flexible and dynamic pricing strategies. This evolution reflects the need to better manage demand, attract different passengers, limit unsold capacity, and respond to differences in passengers' willingness to pay across routes and booking periods.

For this reason, analysing how pricing strategies evolved after the entry of these carriers is important and it helps to understand, as shown in this thesis, current pricing behaviour in the low-cost airline market.

1.2 The role of yield management in modern airline pricing

The introduction of differentiated and flexible fares by low-cost airlines implied that passengers travelling on the same route, or even on the same flight on the same day, could pay different prices depending on many factors such as booking timing, ticket restrictions, and travel characteristics.

This pricing logic is closely related to the development of yield management in the airline industry, a pricing strategy based on adjusting fares according to demand characteristics, booking behaviour, and customer segmentation.

One of the earliest applications of this concept can be traced back to the United States in the early 1970s, when Robert Crandall, the CEO of American Airlines,³ introduced an innovative approach to airline pricing.

Crandall observed that flights would operate regardless of whether all available seats were sold, and that empty seats represented a lost opportunity given the high fixed costs associated with each flight. In order to improve profitability, he decided to reduce ticket prices for specific customer segments, with the aim of attracting passengers who would not have chosen to fly with his company at higher fares. This strategy allowed the airline to sell more seats and cover costs, under the principle that selling a seat at a lower price is preferable compared to leaving it unsold, provided that marginal costs are covered. The basic objective was to fill the flight and gain more passengers as possible.

Over time, yield management evolved into the broader concept of revenue management, a managerial discipline aimed at maximizing revenues by selling the right seat to the right customer, at the right time and at the right price. In practice, revenue management systems allow airlines to simultaneously manage ticket prices and seat availability on fixed-capacity flights, forecasting demand and allocating seats across different fare classes. This approach is relevant in the airline industry, because when a flight is scheduled, it has a cost that must be considered and cannot be cancelled.

For this reason, it is extremely important for airlines to sell tickets, since these costs are already incurred and, to benefit from the flight, airlines need to sell as many seats as possible.

³ Wharton Magazine, *"He Made Airlines Fly Higher: Robert L. Crandall, WG '60"*, Wharton School, Anniversary Issue, (2026).

In more recent years, the evolution of pricing strategies has been further accelerated by the COVID-19 pandemic, which notably altered lifestyles, travel habits, and demand patterns. The widespread use of remote working and the reduction of business travel forced airlines to revise their pricing and capacity management strategies.

Nowadays this theme reflects exigencies of many people who need to travel, it is common to find online blogs⁴ illustrating studies that show that the moment of purchase plays a crucial role in determining the final price paid by passengers, and this popular need is the reason why it is frequent to find online advice on how to save money.

For example, the day of the week on which a ticket is purchased affects airfare levels. Popular travel advice often suggests that buying tickets on specific weekday, such as Tuesday or Wednesday, leads to lower prices compared with weekends, when demand for flight searches is typically higher. This pattern is explained by behavioural factors, such as increased leisure time for searching flights during weekends, as well as by the timing of fare updates and inventory adjustments by airlines. In his article published on *WeRoad*, Roberto Marana affirms the day of the week can influence price together with the time of the day and the period of the year.

However, it is not always confirmed that buying on weekdays means paying less: first of all, it is difficult to establish a general and unique best day to purchase because prices vary depending on the characteristics of the flight and the market in which the airline operates.

In particular, the type of flight, for example whether it is operated by a low-cost or a traditional airline, can significantly influence pricing patterns and booking strategies, so it is important to read online blogs knowing that they refer to precise characteristics of flights. It has been published an online article by Becky Pokora who affirms studies have confirmed this pattern, according to which it is confirmed that weekdays are not always the cheapest days for buying tickets.

Concerning the same topic, Puller and Taylor (2012)⁵ investigate the role of weekday during purchase. Using detailed data from the U.S. airline industry, their study examines whether buying tickets on different days of the week leads to systematic price differences, even when the characteristics of the trip are the same. In other words, they look for differences in prices based on the day of the week a ticket is purchased.

⁴ Roberto Marana, "Quando prenotare un volo: il grande quesito dei viaggiatori," *WeRoad Stories*, (2024)

Becky Pokora, "Best Day and Time to Buy Plane Tickets," *Forbes Advisor*, (2025).

⁵ Steven L. Puller and Lisa M. Taylor, "Price Discrimination by Day-of-Week of Purchase: Evidence from the U.S. Airline Industry," *Journal of Economic Behavior & Organization* 84 (2012): 801–812.

After controlling for factors such as advance purchase timing, travel dates and ticket restrictions, the results show a clear pattern: airline tickets purchased on weekends are, on average, about 5% cheaper than identical tickets purchased during weekdays.

This finding may be surprising, but the explanation offered by the authors makes sense. During weekdays, purchases are dominated by business travellers, who usually have less flexibility and lower sensitivity to price. In contrast, weekend buyers are more likely to be leisure travellers, who typically plan trips for personal reasons and are more price sensitive. Because of this difference the mix of customers changes over the week, and during weekends the share of leisure travellers increases, making overall demand more elastic.

Airlines respond by lowering prices during weekends in order to attract these more price-sensitive customers, while keeping higher prices during the week when business demand is stronger. This mechanism is especially evident on routes that serve both business and leisure passengers where weekend fares are up to 7% lower, while the effect is much smaller on routes mainly used by leisure travellers. This result confirms airlines adapt prices according to passengers' characteristics.

The same phenomenon is studied by Escobari, Rupp, and Meskey (2019)⁶ who analyse how the time of the day affects ticket prices. They analyse nonstop domestic U.S. flights and observe ticket prices from 59 days before departure until the departure date. All flights were scheduled to depart on July 12th 2012, to keep travel conditions constant.

Their research shows that prices are not constant within the same day, even for the same flight. In particular, they find that ticket prices tend to be higher during office hours and lower in the evening. According to the authors, this pattern is linked to the different types of passengers purchasing tickets at different times. Business travellers, who usually have a higher willingness to pay, are more likely to buy tickets during office hours, while leisure ones are generally more active during the evening.

As a result, airlines take advantage of this behaviour by charging higher prices during working hours, especially close to the departure date and this condition reflects the less sensitivity business travellers have to the price, because when they travel for work, they have to do it and the price does not affect them too much.

⁶ Diego Escobari, Nicholas G. Rupp, and Joseph Meskey, "An Analysis of Dynamic Price Discrimination in Airlines," *Southern Economic Journal* 85, no. 3 (2019): 639–662.

Another significant contribution is provided by Gaggero and Luttmann⁷ who investigate on how airline ticket prices change around public holidays by analysing a large set of price data. They use a unique panel of millions of fare observations collected daily for flights in the United States, tracking how prices evolve in the 60 days before departure.

Results show that when tickets are purchased on days of holiday, they tend to be cheaper compared to tickets bought on non-holiday dates. This finding is interpreted as evidence that airlines adjust fares in response to changes in the mix of consumers who buy during these times, with demand becoming more price-sensitive and suggesting airlines to offer discounts. Holiday discounts are more frequent for flights booked within a week of departure, a period typically associated with business travellers who tend to book later than leisure ones.

In this context, offering lower fares may encourage unplanned purchases by passengers who were not originally intending to travel but become attracted by the reduced prices. At the same time, the authors emphasise that travelling on a holiday can still be more expensive, in fact their focus remains specifically on the timing of the purchase rather than on the travel date itself.

⁷ Alexander Luttmann and Alberto A. Gaggero, “Purchase Discounts on Federal Holidays and Adjacent Shopping Holidays,” *Southern Economic Journal* 90, no. 2 (2024): 468–498.

1.3 Objectives of the study

The aim of this thesis is to empirically analyse the pricing strategies adopted by low-cost airlines during peak demand periods of festivities. The main contribution of this work lies in the use of a recent dataset collected during the past months, consisting of airline ticket prices for precise routes. In particular, this thesis offers an interesting contribution because it analyses the European market, a context that has received less empirical attention in literature studies, compared to the United States.

Airline fares pricing represents a relevant example of dynamic pricing, as ticket prices are continuously adjusted in response to expected demand, booking behaviour, and remaining seat availability. Observing how prices evolve as the departure date approaches is essential to understand how airlines behave.

This study adopts a comprehensive perspective by analysing price movements over time and treating pricing behaviour as a dynamic process. This approach allows both early pricing decisions and last-minute adjustments to be examined. By observing the full booking window for each route, it becomes possible to identify structural differences in how fares evolve across routes, travel periods, and demand conditions.

The empirical analysis is supported and complemented by graphical representations, which provide a clear visualisation of price dynamics and facilitate comparisons across airlines and routes, highlighting similarities and differences in pricing patterns over time.

By focusing on routes with different characteristics, namely leisure-oriented and business-oriented destinations, the analysis aims to provide a route-level perspective on pricing strategies adopted by easyJet and Ryanair. For this reason, the study considers two types of representative routes: one category in which passenger demand is predominantly leisure-oriented, and another category where demand is mixed, including a relevant share of business travellers.

The analysis is based on a systematic research and data collection of airline ticket prices for: Milan Malpensa – Tenerife South and Milan Linate – London Gatwick operated by easyJet, and the routes Milan Bergamo – Tenerife South and Milan Malpensa – Manchester operated by Ryanair.

Given the Italian departure airports, the analysis focuses on peak demand periods corresponding to major Italian holidays, among which the Feast of the Immaculate Conception on December 8th, New Year's Eve, Easter, and Labour Day on May 1st.

Ticket prices observed during these periods are compared with those recorded one week before and one week after the holidays with the aim of capturing variations in demand and pricing trend.

The dataset analysed in this thesis covers a time window that includes major holidays between December 2025 and May 2026. The observation period overlaps a phase of strong geopolitical tension, in fact on February 28th 2026, the United States and Israel launched a military operation against Iran, followed by Iran's drone attacks in early March 2026. As a result, travel periods such as Easter and Labour Day fall in a context marked by war and the collection of flight price data for these festivities took place while the conflict was already ongoing.

Despite the instability, empirical observation of the data yields an unexpected finding because flight prices did not undergo anomalous variations or unjustified spikes. The apparent stability of the market analysed in this sample can be explained by a combination of factors. The European market is relatively self-contained, supported by strong domestic demand and seasonal travel linked to spring holidays. It is true that routes and traffic flows within Europe have remained stable compared to flights to Asia, which need to avoid high-risk areas and take longer alternative paths.

This combination may help to explain why operational costs have stayed relatively constant and why disruptions in the Middle East have originated limited short-term impact on European flight prices.

In addition, many European low-cost airlines rely on fuel hedging policies. Hedging is a risk management strategy used by companies to reduce the impact of future price fluctuations. In the airline industry, this strategy refers to the practice of locking the fuel prices in advance through financial contracts in order to protect the company against unexpected increases in fuel costs.

Theoretically, hedging is based on the idea of reducing risk rather than increasing profits. For airlines, since fuel is one of their largest costs, they manage the risk of volatility by fixing prices months before.

According to this strategy, hedging can help explain why, despite the geopolitical tensions observed during the period of the analysis, fuel cost volatility did not translate into significant variations in ticket prices within the European low-cost market.

Results show that pricing dynamics differ significantly based on the type of route (leisure vs. business) and the flight direction (outbound vs. inbound). According to this difference, a study by Luttmann (2019)⁸ confirms that airlines practice directional price discrimination. He shows that round-trip fares heavily depend on the city of origin, making the example that a passenger whose outbound flight is frequented by major business travellers is systematically charged a higher price than a passenger traveling the exact same route but in the opposite direction, as airlines exploit the lower price sensitivity of wealthier local markets

This price asymmetry proves that the discrimination is entirely demand-driven rather than cost-based, as airlines exploit the lower price sensitivity and thanks to this mechanism, airlines segment passengers into distinct categories based on their willingness to pay, as it will be analysed in greater detail later in this thesis.

In addition, findings strongly underline that holiday periods impact leisure routes with stronger influence, whereas business-oriented ones are less sensitive and characterised by frequent travellers. This finding is related to the type of passenger a route has: leisure routes are mainly characterised by travellers who go on holiday and have less time flexibility. The same pattern occurs on the return date, when travellers are obliged to return and airlines increase prices.

Results also demonstrate different strategies between the two airlines and explain how similar routes may have differences in prices, especially because airlines adjust prices over time and take in consideration the peak demand correlated to periods of holiday.

The thesis is structured as follows. This chapter provides an historical introduction together with the objectives of the study, the second chapter provides a review of the main theoretical and empirical contribution in the existent literature concerning airline pricing strategies, including yield management. The third chapter describes the data collection process, the selection of routes and holidays, together with the methodology adopted for the empirical analysis. The fourth chapter presents and discusses the empirical results, supported by graphical representations that aim to highlight fare trends and differences across periods, routes, and airlines.

Finally, the concluding chapter summarizes the main findings, discusses the limitations of the analysis, and outlines possible directions for future research.

⁸ Alexander Luttmann, "Evidence of Directional Price Discrimination in the U.S. Airline Industry," *International Journal of Industrial Organization* 62 (January 2019): 291–329.

Chapter 2 – Literature Review

2.1 Theoretical foundations of airline pricing strategies

The airline industry has long attracted the attention of researchers because it operates under very particular economic conditions. Airlines have to deal with extremely high fixed costs, such as aircraft, fuel, and staff, while at the same time selling a product that cannot be stored: once a flight takes off, any empty seat represents lost revenue. In addition to these features, demand is often uncertain and may change quickly, while competition between airlines is usually very strong. Due to these characteristics, air transport provides a natural and interesting setting for studying how airlines manage prices and capacity.

Over the years, a rich academic literature has developed around these issues. Some contributions are theoretical, proposing models to explain how airlines make pricing decisions and allocate seats across different fare classes. Other studies take an empirical approach, using market data from different parts of the world to test these theories and to understand how airlines behave in practice. However, empirical evidence often shows that real-world pricing strategies reflect theoretical predictions only partially, as actual market behaviour is influenced by uncertainty, operational constraints, and factors that cannot be fully captured by theoretical models.

Already early theoretical contributions emphasize that uniform pricing is generally inefficient in industries, like the airline sector, characterized by fixed capacity and fluctuating demand.

A foundational contribution in this area is provided by Belobaba (1989),¹ considered one of the founding figures of the modern airline revenue management who introduces probability-based models for airline yield management. His work focuses on seat inventory control under conditions of demand uncertainty and shows how airlines can allocate seats among different fare classes by accounting for the stochastic nature of demand.

This contribution demonstrates that airlines face a situation in which passengers who book early pay less and passengers who book later pay more.

¹ Peter P. Belobaba, “Application of a Probabilistic Decision Model to Airline Seat Inventory Control,” *Operations Research* 37, no. 2 (1989): 183–197.

This scheme creates a setting made up of different times of booking, that leads to different revenues and unifies theory and practice, offering a framework that can be implemented in airline revenue management systems.

However, Belobaba's analysis mainly concentrates on the operational aspect of seat allocation and does not completely refer to strategic competition among airlines. As a result, even if his model is relevant for understanding internal airline decision-making and price discrimination, it provides limited insight into how pricing strategies evolve in competitive environments, leaving the door open for further research. For instance, Dai (2014)² provides a deeper analysis of how competition shapes these pricing patterns. He studies the U.S. market and finds that the relationship between competition and price dispersion is non-monotonic. In other words, when competition is low, airlines maintain relatively stable high prices but when competition increases, they intensify segmentation strategies, by lowering fares for price-sensitive passengers and at the same time by keeping higher prices for less sensitive ones.

In contrast, Brueckner (2001)³ approaches competition from a structural perspective, arguing that results in the airline industry are not only determined by the number of airlines operating on a route, but also by the strategic relationships among them. In his analysis of international airline alliances, Brueckner shows that when airlines cooperate, they can lower prices on connecting flights because they work together instead of charging separately for each part of the trip. This cooperation, however, can also reduce competition, since airlines are no longer competing fully against each other.

Returning to the broader literature on airline pricing, Weatherford and Bodily (1992)⁴ make an important contribution by placing the airline industry within a group of industries where capacity is perishable. They argue that airlines share key economic features with sectors such as hotels and car rentals, where capacity is fixed and unsold units lose value once the service date has passed. In this setting, as affirmed before, an empty seat represents a loss of revenue. Their research develops a framework capable of explaining how revenue management works in industries with fixed capacity, as airline industry, aiming to organize and classify the main decision problems faced by companies.

² Mian Dai, "Is the Effect of Competition on Price Dispersion Non-Monotonic? Evidence from the U.S. Airline Industry," *Review of Economics and Statistics* 96, no. 1 (2014): 161–170.

³ Jan K. Brueckner, "The Economics of International Codesharing: An Analysis of Airline Alliances," *International Journal of Industrial Organization* 19, no. 10 (2001): 1475–1498.

⁴ Lawrence R. Weatherford and Samuel E. Bodily, "A Taxonomy and Research Overview of Perishable-Asset Revenue Management: Yield Management, Overbooking, and Pricing," *Operations Research* 40, no. 5 (1992): 831–844.

A central insight of their work is that revenue maximisation in this type of industries cannot only rely on fixed prices but also on the combination of demand forecasting, overbooking decisions, and price differentiation. These principles, still debated today, are the demonstration for which airlines use dynamic pricing systems, adjusting fares over time and across customer groups rather than applying a single and equal price to all passengers.

Weatherford and Bodily in fact highlight the importance of customer segmentation. Passengers are distinguished into different categories based on observable characteristics, especially booking time, sensitivity to price, reason of the journey and ticket conditions. At the same time, authors recognise that real-world airline pricing decisions are more complex than theoretical models because they are continuously exposed to changes of demand and concurrence, and this complexity explains why practice situations may differ from theory. Since their analysis helps to understand the economic reasons behind dynamic pricing and customer segmentation, it creates a useful reference for literature that will be later discussed more profoundly.

Another theoretical explanation concerning dynamic pricing is provided by Gale and Holmes (1993),⁵ who study advance-purchase discounts in presence of predictable peak demand, the so-called systematic events that may be known and treated ahead.

Their model assumes that passengers differ in flexibility, allowing airlines to use advance-purchase restrictions as a screening mechanism. Flexible passengers, who are mainly leisure ones, self-select into low fares by booking early, while less flexible passengers pay higher prices closer to departure. This mechanism provides a clear theoretical foundation for price differences between leisure and business travellers.

A limitation of Gale and Holmes' model is the assumption that peak demand is known with certainty, while on the contrary in airline markets, demand is often uncertain. It is true that systematic periods can often be anticipated based on historical trends but the actual level of demand remains uncertain and subjected to various factors.

This issue is addressed by Dana (1999),⁶ who extends the analysis of Gale and Holmes to settings in which the timing of peak demand is unknown. Dana shows that even under uncertainty, airlines use yield management to shift demand efficiently by limiting the availability of low-priced seats.

⁵ Ian L. Gale and Thomas J. Holmes, "Advance-Purchase Discounts and Monopoly Allocation of Capacity," *American Economic Review* 83, no. 1 (1993): 135–146.

⁶ James D. Dana Jr., "Using Yield Management to Shift Demand When the Peak Time Is Unknown," *RAND Journal of Economics* 30, no. 3 (1999): 456–474.

Importantly, the paper demonstrates that price dispersion can arise as an efficient response to uncertainty, rather than as evidence of price discrimination. While Dana's contribution provides useful support for theoretical models, it does not fully reflect the complexity of real airline markets. In particular, it leaves out several important aspects that influence passengers' choices, such as competition among multiple airlines on the same routes and the differences between airline business models.

Dana (2001)⁷ later addresses some of these limitations by considering competition between airlines. In his study, he explains that airlines compete not only on prices, but also on how many seats they offer and how many seats on competitive flights are offered. In this setting, each airline's decision depends on what its rivals are doing. This pattern makes the analysis more realistic, because it shows that pricing strategies are influenced by competitive pressure and by the interaction between airlines operating in the same market.

To better understand how pricing decisions are implemented in practice, it is worth focusing on the revenue management literature. An overview of this theory is provided by McGill and van Ryzin (1999),⁸ who study the main models and applications of revenue management across industries. Their work clarifies the distinction between yield management and revenue management and emphasizes the role of optimization and demand forecasting in pricing decisions. This theme is further developed by Talluri and van Ryzin (2004),⁹ whose book represents a cornerstone of the revenue management literature, underlining differences with yield management.

Both contributions are primarily theoretical and methodological, they do not directly test the models using airline data and therefore leave open questions regarding how closely real-world airline behaviour aligns with theoretical predictions.

However, they both affirm in theory that yield management is more specific and refers to the set of techniques used to maximise revenue based on seats availability, while revenue management is a more complex strategy that combines pricing, decisions and demand forecasting.

⁷ James D. Dana Jr., "Competition in Price and Availability When Availability Is Unobservable," *RAND Journal of Economics* 32, no. 3 (2001): 497–513.

⁸ Jeffrey I. McGill and Garrett J. van Ryzin, "Revenue Management: Research Overview and Prospects," *Transportation Science* 33, no. 2 (1999): 233–256.

⁹ Kalyan T. Talluri and Garrett J. van Ryzin, "Revenue Management under a General Discrete Choice Model of Consumer Behaviour," *Management Science* 50, no. 1 (2004): 15–33.

A more specific theoretical contribution focused on low-cost carriers, is provided by Alves and Barbot (2009),¹⁰ who develop a model to explain a key feature of low-cost airline pricing: the increase in fares as the departure date approaches. Unlike traditional airlines, low-cost carriers typically operate with a single booking class and non-refundable tickets, relying on simple pricing structures. Despite this simplicity, fares vary substantially over time, and the authors demonstrate why this pattern can be profit-maximising. They interpret this behaviour as a form of price discrimination driven by passengers' differences in willingness to pay and the probability of flying.

Because low-cost tickets are non-refundable, booking early involves a risk for passengers who may later be unable to travel, so this risk explains why especially leisure passengers need to be sure they can travel during selected days before doing the purchase. This pattern creates a trade-off between securing a low fare early and waiting until closer to departure facing a higher cost and possible limited availability.

Typically, leisure travellers tend to book early, while passengers with higher willingness to pay but greater uncertainty, often business ones, delay booking. By setting low initial fares and gradually increasing prices over time, low-cost airlines use the so-called Low-High strategy, starting from low fares that increase when the day of departure nears. The mainly theoretical model described by Alves and Barbot shows that this pricing strategy can be optimal even when all consumers face the same prices at any given time, as price discrimination emerges through booking time and it demonstrates that variations of price are present during the all period precedent to departure.

Another contribution based on the augmentation of prices when departure approaches is supported by Siegert and Ulbricht (2020),¹¹ who study European direct routes. According to their analysis, for each flight, prices are recorded in a precise booking window which allows the authors to follow the full evolution of ticket prices over time. Through this method, Siegert and Ulbricht are able to identify how prices evolve as departure approaches and the results show that airline ticket prices increase systematically as the departure date approaches. In effect, they proof that price changes follow predictable dynamic paths rather than random fluctuations, indicating the presence of intertemporal price discrimination.

¹⁰ Carlos F. Alves and Cristina Barbot, "Price Discrimination Strategies of Low-Cost Carriers," *Journal of Transport Economics and Policy* 43, no. 3 (2009): 345–363.

¹¹ Caspar Siegert and Robert Ulbricht, "Dynamic Oligopoly Pricing: Evidence from the Airline Industry," *Journal of Political Economy* 128, no. 2 (2020): 560–597.

The authors find that the intensity of price increments depends also on market conditions. In more competitive routes, prices tend to grow more slowly over the booking period, while in markets with fewer competitors price increments are stronger, especially during the last weeks before departure. This finding may sustain the theory according to which when there are few competitors, airlines can rise prices because passengers have few alternatives and thus end up spending more money for tickets.

In addition, the authors show that pricing dynamics are more pronounced on routes characterized by heterogeneous demand. When both business and leisure travellers are present, airlines are more likely to adjust prices to target passengers with different willingness to pay. Overall, the theoretical literature highlights the central role of yield management under fixed capacity and demand uncertainty. Moreover, the existing literature provides the theoretical basis for analysing how low-cost airlines adjust fares in response to demand heterogeneity, booking behaviour and systematic demand peaks, such as holiday periods, that may be predicted in advance.

2.2 Price discrimination and fare differentiation

Although the existing literature offers many models to explain how airlines set prices, understanding how fares change during the booking period that precedes a flight, requires a clear focus on yield management and price discrimination.

The introduction of differentiated fares applied by low-cost airlines implied that passengers travelling on the same route, or even on the same flight on the same day, may pay significantly different prices. This pricing logic is strictly connected to the development of yield management in the airline industry.

Yield management, effectively, refers to a set of pricing techniques aimed at adjusting fares according to demand characteristics, booking behaviour, and customer segmentation, with the main objective of maximising revenues under conditions of fixed capacity and uncertain demand. In this context, differentiated pricing allows airlines to improve profitability by reducing unsold spots and selling as many tickets as possible.

From an economic perspective, airline pricing can be understood through price discrimination, which occurs when the same or very similar product, in this case a ticket for a specific flight, is sold at different prices to different consumers, even though such price differences are not driven by production costs.

In the airline industry, price discrimination means that passengers travelling on the same flight may pay different prices depending on when they purchase their ticket, how flexible they need it to be, and the purpose of their trip. It may occur, and this is precisely what the present thesis also shows, that the price of tickets for the same flight changes according to the day on which it is purchased.

These differences reflect the fact that passengers do not all value the flight in the same way, or, in economic jargon, passengers have different levels of willingness to pay. Airlines use this passenger's feature to segment customers into groups and apply different fares to each group, even though the service provided remains essentially the same. This pricing approach allows airlines to better match prices to demand conditions and to manage limited seat capacity more efficiently.

Briefly, airlines face very high fixed costs, while the cost of carrying one additional passenger is relatively low, making it profitable to sell seats at a wide range of prices in order to fill the flight and maximise revenue. This behaviour, practically, helps to explain why airlines charge different prices to different passengers, which is the idea behind price discrimination.

Within this framework, three main forms of price discrimination are traditionally identified:

- First-degree price discrimination, called also perfect price discrimination, occurs when a seller charges to each consumer a price equal to their maximum willingness to pay, capturing the entire consumer surplus. In simple terms, this form of discrimination means that the seller tries to find out the highest price that each individual customer is ready to pay and then charges exactly that amount.

In practice, this form of discrimination is rarely achievable because it requires complete information about individual preferences.

- Second-degree price discrimination involves offering a range of pricing options that induce consumers to self-select, according to their willingness to pay.

This mechanism is widely used in the airline industry through the offer of multiple fare classes for the same flight, each with precise conditions and levels of flexibility.

Low-cost airlines rarely offer multiple fare options compared to traditional carriers but some elements of price differentiation, such as a priority boarding card or the possibility of bringing larger hand luggage into the cabin can still be observed.

According to this system, each ticket owns precise characteristics, and each passenger has the possibility to choose personally among different options according to his own preferences. Lower fares are associated with restrictions such as non-refundability or advance-purchase requirements, while higher fares offer greater flexibility. As a result, price-sensitive passengers, typically leisure travellers, choose cheaper and more restrictive tickets, whereas less price-sensitive passengers, often business travellers, prefer more flexible and expensive options.

- Third-degree price discrimination consists in charging different prices to distinct groups of consumers based on observable characteristics. In the airline industry, this form of discrimination is particularly used and it is based on customer segmentation.

Low-cost airlines exploit the differences of passengers by charging higher fares to late-booking passengers and lower fares to those booking well in advance. This strategy means that people who buy tickets at the last minute usually pay more, while those who plan ahead can benefit from cheaper prices.

Third-degree price discrimination is especially evident during peak periods, such as holidays, when airlines anticipate strong demand that will occur before festivities and consequently adjust prices.

The distinction between second and third degree comes from the way passengers are divided. In second-degree price discrimination, passengers choose among different options, selecting the ticket that best fits their needs and budget so the decision depends on the individual passenger who self-selects among different possibilities and times. On the contrary, in third-degree price discrimination, it is the airline that segments customers into different groups, sets different prices and offers discount based on specific characteristics.

The widespread use of price discrimination is closely linked to the industry's cost structure according to which operations are characterised by high fixed costs, including aircraft acquisition, crew salaries, maintenance, and airport fees. As affirmed before, once a flight is scheduled, these costs are spent regardless the number of passengers carried. By contrast, the marginal cost of transporting an additional passenger is relatively low in fact once the aircraft is already operating, carrying one more passenger generates only limited extra costs up to the point when the flight is full.

As a result, airlines have a strong incentive to sell as many seats as possible, even at lower prices, as any additional passenger can contribute to increase revenues without significantly increasing total costs, and this principle explains perfectly why selling a seat at a lower price is economically preferable compared to leaving it unsold.

The theory of price discrimination leads to strategies of yield and revenue management. Over time, yield management evolved into the broader concept of revenue management, which gradually integrates pricing, demand forecasting, and capacity control. Revenue management systems allow airlines to manage both ticket prices and seat availability on flights with fixed capacity, adjusting decisions as demand information changes.

This evolution has been supported by advances in information technology and data analytics, which have improved airlines' ability to predict demand and optimise pricing strategies.

In recent years, the evolution of airline pricing has been further accelerated by the COVID-19 pandemic, which importantly altered travel behaviour and demand patterns. Changes forced airlines to rely more on flexible pricing and revenue management systems to cope with volatile demand conditions. Seen from an airline manager point of view, it is important to understand passenger choices to predict them and to deal with them by working on effective strategies in order to have success.

Domínguez-Mencheró, Rivera and Torres-Manzanera (2014),¹² study how airline ticket prices evolve as departure approaches, with the objective of identifying the most convenient moment to purchase a flight and especially to predict when most passengers would have bought tickets, underlining the importance of understanding passengers' preferences and choices to be successful. Using daily fare data for routes departing from Madrid to destinations such as London, Frankfurt, Paris and New York, they detect prices begin to importantly increase 18 days before departure. Their study documents that the increase in prices is driven by the approaching departure date, rather than by the day of the week alone. As the departure date gets closer, airlines progressively adjust prices to reflect changes in demand conditions and in passengers' willingness to pay.

The authors also show that purchasing behaviour follows identifiable patterns, which can be useful both for consumers trying to choose the best time to buy and for airlines aiming to improve their pricing strategies. Their work is particularly interesting because it shows the passenger point of view and his possible considerations prior purchase.

However, demand is influenced by other factors, such as the existence of peak periods that of course creates variations of prices. These periods may be classified in systematic, when they are predictable such as special events for example holidays, festivals, and major sporting events as Olympic Games, or in stochastic events that are random.

Concerning stochastic events, Piga, Gaggero and Alderighi (2025)¹³ study how airlines react to an unexpected increase in demand caused by the official announcement of which national teams would play during UEFA Euro 2016.

Their analysis show that airlines raised prices for flights to French cities after the announcement of football matches, and that price dispersion decreased, meaning that fewer low-fare seats were available after the shock. The effect was stronger on routes connecting the United Kingdom to France, where both willingness to pay and the number of potential passengers increased, while on routes from neighbouring countries the impact was more limited. This result highlights the fewer alternatives UK passengers have to go to France and encourages the possibility for airlines to rise fares. The authors with their finding confirm that stochastic events, such as football matches, generate unexpected demand shocks that cannot be predicted in advance, by differentiating systematic events that on the contrary may be predicted.

¹² José S. Domínguez-Mencheró, Jorge Rivera, and Eva Torres-Manzanera, "Optimal Purchase Timing in the Airline Market," *Journal of Air Transport Management* 40 (2014): 137–143.

¹³ Claudio A. Piga, Alberto A. Gaggero, and Marco Alderighi, "Demand-Shock Characteristics and Pricing Behaviour: A Natural Experiment from UEFA Euro 2016," *Economics of Transportation* 41 (2025): 100393.

In effect, holiday periods, including the ones analysed in this thesis as Immaculate Period, New Year, Easter, and Labour Day are particularly relevant for analysing airline pricing strategies. Unlike random demand shocks, holidays are predictable and recurring, allowing airlines to anticipate demand well in advance and implement targeted pricing strategies.

This thesis aims to focus on systematic periods, the so-called know ex-ante, since they can be known in advance and to show how price discrimination and revenue management influence fare changes in the low-cost airline sector.

2.3 Empirical evidence on demand peaks

Building on the theoretical framework of yield management and price discrimination, a substantial body of empirical literature has investigated airline pricing behaviour using real-world data. These studies aim to examine whether the pricing patterns predicted by previous theoretical models are reflected in actual airline markets, focusing on fare evolution over the booking period, responses to demand fluctuations, and the use of pricing as a tool for passenger segmentation. Studies are based on collections of data and analysis that allow to highlight concrete and practical airlines behaviours.

Overall, empirical research strongly supports the relevance of yield management and price discrimination in air transport, showing how these strategies play a key role in airlines' pricing decisions and revenue optimization. At the same time, the literature also highlights some important limitations such as limited data, analysis based on short time periods and specific markets, which makes it difficult to fully compare different airline models and leaves the door open to further research.

A foundational empirical contribution is provided by Borenstein and Rose (1994),¹⁴ who analyse fare dispersion in the U.S. airline industry in the post-deregulation period. Using detailed cross-sectional fare data, they document significant price dispersion not only across routes, but also within the same route and even on the same flight. For instance, Borenstein and Rose find that the expected difference in fares between two passengers randomly selected on the same route is about 36 percent of the airline's average ticket price on that route.

This evidence goes against the idea that airline tickets have one single right price that clears the market. Instead, it shows that having many different prices for the same flight is a normal and structural feature of airline markets. They explain that these price differences are not simply due to cost variations or random pricing choices, rather, fare dispersion is closely linked to factors such as how competitive a route is, how limited seat availability is, and differences in passenger types and their willingness to pay. Together, these elements provide early empirical evidence that airlines actively use price discrimination when setting ticket prices. Despite its importance, this study has some limitations for example it looks only at the U.S. market and at a specific period, so it is not clear whether its results can be applied to other contexts, for example in a European market, which operates under different regulations and where low-cost airlines play a much larger role.

¹⁴ Severin Borenstein and Nancy L. Rose, "Competition and Price Dispersion in the U.S. Airline Industry," *Journal of Political Economy* 102, no. 4 (1994): 653-683.

Stavins (2001)¹⁵ studies price variations and extends this line of inquiry by shifting attention from overall price dispersion to the mechanism through which airlines discriminate prices. Using data from U.S. airlines, she studies how market concentration influences the use of ticket restrictions, such as advance-purchase rules and refund conditions, as tools to separate different types of passengers. Her findings show that price discrimination is stronger in more competitive markets, challenging the idea that greater competition leads to more uniform prices. This result occurs because competition encourages airlines to attract price-sensitive passengers through low fares, while at the same time maintaining higher prices for less price-sensitive travellers. Stavins, in addition, affirms that competition can increase the need for airlines to differentiate prices and attract more possible passengers.

In her view, when many airlines operate on the same routes, they are pushed to use more varied pricing strategies to fill their flights. They aim to attract budget-conscious customers with cheap tickets, at the same time they keep higher fares for business travellers or last-minute buyers who are less sensitive to price.

This contribution is particularly relevant because it provides direct empirical evidence of third-degree price discrimination in airline markets. However, by focusing primarily on fare restrictions, the analysis does not fully capture the dynamic evolution of prices over the booking horizon, leaving open questions regarding intertemporal pricing behaviour.

Additional empirical evidence on the relationship between competition and price dispersion is offered by Gerardi and Shapiro (2009),¹⁶ who confirm the concept that greater competition does not eliminate fare dispersion in U.S. airline markets. Using detailed data over a long period, they find that price dispersion remains a common feature of airline pricing, even in highly competitive environments.

Their analysis suggests that competition alone is not sufficient to lead to uniform prices, as airlines continue to adopt complex pricing strategies. In particular, according to their data, price dispersion is especially pronounced on routes where different types of consumers coexist. This behaviour reflects the ability of companies to segment demand and to extract higher revenues from less price-sensitive customers, while still offering lower fares to more flexible travellers.

¹⁵ Joanna Stavins, *Price Discrimination in the Airline Market: The Effect of Market Concentration* (Boston: Federal Reserve Bank of Boston, 1996), 1–17.

¹⁶ Kristopher S. Gerardi and Adam Hale Shapiro, “Does Competition Reduce Price Dispersion? New Evidence from the Airline Industry,” *Journal of Political Economy* 117, no. 1 (2009): 1–37.

Gerardi and Shapiro focus their studies on the American market, while Gaggero and Piga (2011)¹⁷ study the European market. In particular, they study the UK–Ireland airline market using detailed fare data and indicators of market concentration to measure the level of competition. By analysing how price differences change during time, they find a clear negative relationship between competition and intertemporal price dispersion. In other terms, when competition increases, differences of prices become smaller because when more airlines operate on the same route, passengers can easily compare fares and switch to a competitor who offers a flight at lower price.

Mantin and Koo (2009)¹⁸ complement this perspective by showing that price dispersion evolves systematically as departure nears. Their results underline the importance of timing in airline pricing decisions, as fares become increasingly differentiated in response to updated demand information and they also highlight the importance of passenger segmentation that has effects on tickets prices. In effect, they show that dispersion tends to increase closer to the departure date and they suggest that airlines continuously revise prices over time in order to better match demand conditions and maximize revenue from limited seat capacity.

While these studies deepen understanding of intertemporal pricing, they abstract from predictable demand shocks. This limitation motivates a shift in the literature review toward the European context, where studies focus more directly on how airlines adjust strategies in response to predictable demand fluctuations such as festivities. Although comparatively less attention has been devoted to European evidence in the literature, several existing studies are particularly interesting because they provide valuable contributions to understanding how low-cost airlines in Europe respond to predictable peaks in demand.

European evidence is provided by Piga and Bachis (2007),¹⁹ who examine pricing behaviour across European airline markets, with particular attention to differences between traditional carriers and low-cost airlines. Using fare data collected at precise days before departure, they show that low-cost carriers rely intensively on dynamic pricing, with fares increasing progressively as departure nears. This pattern is interpreted as evidence of intertemporal price discrimination where early bookers benefit from lower fares, while passengers booking later pay more.

¹⁷ Alberto A. Gaggero and Claudio A. Piga, “Airline Market Power and Intertemporal Price Dispersion,” *The Journal of Industrial Economics* 59, no. 4 (2011): 552–577.

¹⁸ Benjamin Mantin and Byung-Cheol Koo, “Dynamic Price Dispersion in Airline Markets,” *Transportation Research Part E* 45, no. 6 (2009): 1020–1029.

¹⁹ Claudio A. Piga and Emanuela Bachis, “Pricing Strategies by European Traditional and Low-Cost Airlines,” *Journal of Transport Economics and Policy* 41, no. 3 (2007): 311–325.

The authors argue that this pricing strategy allows low-cost airlines to better manage demand uncertainty and maximize revenues over time by offering very low fares at early booking stages, airlines stimulate early sales and reduce the risk of unsold capacity. As the departure date approaches and seat availability decreases, prices generally rise to reflect both higher demand and lower flexibility on the supply side. In contrast, traditional carriers display a more complex pricing structure, often combining dynamic pricing with additional features such as fare classes, restrictions, and specific services.

Another study about European airlines is the one by Bilotkach, Gaggero, and Piga (2015),²⁰ who study pricing strategies of European low-cost carriers under different competitive conditions. Their framework highlights the role of low-cost airlines as companies that expand overall demand, rather than competing only through lower prices. In contrast to traditional competitive models, they argue that fare reductions by low-cost carriers stimulate additional demand by attracting highly price-sensitive travellers who want to spend as little as possible. Empirically, they show that lower fares lead to a clear increase in the total number of passengers, while having only a small impact on the number of passengers carried by competitors. This result suggests that price reductions mainly stimulate new demand and the selling of more tickets, encouraging individuals who would not have travelled otherwise to enter the market, rather than simply shifting passengers from one airline to another. These results support an interpretation of pricing as a tool for market expansion and capacity utilisation, and confirm what Robert Crandall affirmed some decades before.

A more direct examination of peak-load pricing is provided by Escobari (2009).²¹ This study is particularly interesting because it represents one of the earliest empirical tests of systematic peak-load pricing in airline markets and provides strong evidence that airlines anticipate demand changes rather than responding to them only as departure approaches.

The attention goes back to the U.S. market, by studying fares around the Thanksgiving holiday. After a collection of data of ten weeks in autumn 2005, Escobari shows that airlines charge substantially higher prices during known peak-demand periods and restrict the availability of discounted seats well in advance. Unfortunately, the analysis is limited to a single holiday in a specific market, raising questions about its applicability and efficacy to other contexts.

²⁰ Volodymyr Bilotkach, Alberto A. Gaggero, and Claudio A. Piga, "Airline Pricing under Different Market Conditions: Evidence from European Low-Cost Carriers," *Tourism Management* 47 (2015): 152–163.

²¹ Diego Escobari, "Systematic Peak-Load Pricing, Congestion Premia and Demand Diverting: Empirical Evidence," *Economics Letters* 103, no. 1 (2009): 59–61.

More recent contributions focused on holidays in the U.S., is the one provided by Gaggero and Luttmann (2025).²² In their work, they study systematic periods known ex-ante, because as they affirm « holidays are known well in advance so peaks can be planned ahead by airlines ».²³ The estimate period is from October 2019 to February 2020 and flights are mainly non-stop in USA.

Their results indicate that airlines adjust prices well ahead of predictable demand peaks, leading to early fare increases and reduced volatility once demand becomes saturated. Interestingly, they also quantified the effect of peak demands on the duration by calculating how extended peak periods are. Finally, they also distinguish between national and federal holidays finding out that national holidays have more effect on price premium. Consumers pay more on national holidays because the majority of the population is on holiday. With their data, they confirm the suggestion that there is a significant increase in passengers' movement on national holidays (+83%) rather than on federal ones (+35%).

An original approach they have is to separate routes based on km: it is important to consider that when a route is not too long, a car can substitute the flight but for longer distances flights cannot be substituted, confirming these flights usually have higher fares and a strong price discrimination. Although the methodology is particularly robust, the study focuses on a short time window and the U.S. market, limiting its ability to capture pricing dynamics among European low-cost carriers in the post-pandemic period.

These studies highlight how external factors influence pricing strategies, but the existing literature also examines how passengers themselves behave and respond to these pricing mechanisms. Suzuki (2004)²⁴ studies how service failures affect choices and finds out that both leisure and business travellers tend to prioritise current prices and schedule convenience over past negative experiences.

In particular, the analysis shows that even when passengers have previously experienced delays, cancellations, or service disruptions, these factors do not necessarily lead them to avoid the same carrier in future purchases. Instead, travellers tend to focus mainly on current ticket prices and schedule convenience, suggesting that negative service experiences have only a limited and temporary effect on airline choice.

²² Alberto A. Gaggero and Alexander Luttmann, "Systematic Peak-Load Pricing during Holiday Periods: Evidence from the U.S. Airline Industry," *Economics of Transportation* 41 (2025): 100395.

²³ Gaggero's interview "Higher ticket price: wonder why? Holidays make a big difference" released on *Youtube Channel 3A @achimczerny* on 19th January 2026.

²⁴ Yoshinori Suzuki, "The Impact of Airline Service Failures on Travelers' Carrier Choice: A Case Study of Central Iowa," *Transportation Journal* 43, no. 2 (2004): 26–36.

These results reinforce the central role of pricing in travel decisions, even in the presence of differences in service quality across carriers. It is true that low-cost European airlines often offer precise routes that may not have a lot of competitors, so passengers continue to choose the same company for the trip even when they had a previous negative experience.

More recently, Marsh, Scott, Kuiken and Williams (2025)²⁵ analyse online search and booking behaviour using data that combine transaction records with search activity. Their results show that passengers actively monitor prices over time. As departure approaches, consumers searching for flights shifts toward less price-sensitive travellers, as business passengers. When passenger characteristics are considered, the tendency to buy tickets close to departure becomes much smaller. This behaviour confirms that higher last-minute prices are mostly due to different types of travellers booking at different times, rather than airlines raising prices for everyone. In other words, the average price rises not because airlines deliberately raise prices for every customer, but because the remaining buyers are those willing to pay more, and this explanation helps to understand that price dispersion emerges because different types of travellers enter the market at different times.

Finally, a growing literature examines the impact of the COVID-19 pandemic on airline pricing and demand. Suau-Sanchez, Voltes-Dorta and Cugueró-Escofet (2020)²⁶ document a sharp contraction in uncertain demand and a collapse in business travel, showing that airlines increasingly rely on flexible pricing and capacity management strategies. They provide an analysis of how the pandemic disrupted the air transport system worldwide.

Their study highlights that COVID-19 caused an unprecedented fall in passenger traffic due to travel bans, lockdowns, and strong uncertainty about health conditions. Airlines were forced to drastically reduce flight frequencies and ground large parts of their fleets. A central contribution of their work is the distinction between leisure and business travel: while leisure demand recovers relatively faster once restrictions are lifted, business travel appears more fragile due to the diffusion of remote working. The study emphasizes that the pandemic did not simply reduce overall demand, but also altered its composition, increasing uncertainty and limiting the effectiveness of traditional revenue management systems.

²⁵ Alex Marsh, Garrett Scott, Drew Van Kuiken, and Jonathan W. Williams, “Should I Stay or Should I Go? An Empirical Analysis of Consumer Behaviour Using Airline Web Traffic Data,” *Economics of Transportation* 43 (2025): 100425.

²⁶ Javier Suau-Sanchez, Augusto Voltes-Dorta, and Natàlia Cugueró-Escofet, “An Early Assessment of the Impact of COVID-19 on Air Transport,” *Transport Policy* 97 (2020): 57-61.

Building on this literature, Gaggero and Luttmann (2025)²⁷ analyse how COVID-19 affected airline pricing behaviour during the booking period. Their study relies on a unique dataset of more than 43 million fares collected daily from a major online travel agency, covering flights before and during the pandemic. This collection of data allows the authors to track how prices for the same flight change as departure approaches.

The authors find that airlines significantly reduced ticket prices, with an average of fares falling of 57%, and no longer the phenomenon of increased prices as much close to departure. These effects are mainly due to COVID-19 conditions at the place of the destination, as airlines had to cut prices to attract clients when infection rates were high.

Overall, Gaggero and Luttmann show that the pandemic significantly altered airline pricing strategies, increasing the need for flexibility and leading to more heterogeneous pricing behaviour.

However, most of this literature focuses mainly on the first effects of the pandemic. For this reason, it offers little evidence on how airline pricing strategies changed during the recovery period, when demand slowly returned normal but differed across routes and types of passengers. This event is recent, confirming that we still know little about the long-term effects of COVID-19 on airline pricing behaviour.

In conclusion, the empirical literature provides strong evidence in support of theoretical models of yield management and price discrimination in airline markets. A large number of studies show that airlines actively adjust prices over time and use different pricing strategies to target passengers with different levels of willingness to pay.

Overall, the evidence confirms that price dispersion and dynamic pricing are not random outcomes, but key features of airline revenue management. At the same time, several issues remain open as many existing studies focus on average pricing behaviour or on specific market settings, often relying on data from limited time periods.

As a result, less attention has been given to European market and to predictable peak-demand periods, such as holidays, during which airlines face systematic and recurring changes in demand. In addition, relatively few papers directly compare pricing behaviour across leisure and business routes, especially within the low-cost airline segment.

²⁷Alberto A. Gaggero and Alexander Luttmann, “How Does COVID-19 Affect Intertemporal Price Discrimination and Price Dispersion? Evidence from the Airline Industry,” *International Journal of Industrial Organization* 101 (2025): 103171.

The present thesis contributes to this literature by addressing these gaps through an empirical analysis of pricing behaviour across different European route types and systematic holiday periods, providing new evidence on how low-cost airlines adapt their pricing strategies to variations in demand structure.

Chapter 3 – Data Collection

3.1 Selection of routes and price tracking

Ticket prices were collected through direct observation of fares published on the official websites of the airlines,¹ ensuring reliability of the dataset. This method avoids potential distortions related to other platforms and it allows the analysis to focus on airlines' own pricing decisions.

The choice of routes reflects different demand profiles and distances, providing a basis for comparing pricing behaviour across market types and travel periods. A route is defined as a directional airport-pair, that is a specific connection between an airport of departure and an airport of arrival in a given direction. According to this definition, a flight from an airport of departure to an airport of arrival is therefore treated as a different route from the inbound flight from the airport of arrival to the airport of departure since the direction of travel may involve different demand patterns and pricing behaviour.

This approach allows the analysis to distinguish between outbound and inbound markets rather than combining them into a single route. Moreover, this thesis takes in consideration the case of city pair, a concept that air transport defines when the same city has multiple airports that offer flights to the same destination.

The four sampled routes are operated by low-cost companies, two of them by easyJet and two by Ryanair. Among these routes, two are business oriented, serving destinations such as Manchester and London, possibly frequented by business travellers for meeting and work, while the remaining two are leisure oriented, primarily used by passengers travelling for holidays and leisure purposes.

Leisure and business destinations offer a diverse passenger base that causes different effects on demand and leads to different fares. In particular, business routes tend to show more stable demand throughout the year, as travel is often linked to professional commitments that are less dependent on seasonality. On the contrary, leisure routes are generally more affected by seasonal peaks, public holidays, and vacation periods.

¹ EasyJet, *easyJet* website, accessed from September 2025 to May 2026, <https://www.easyjet.com/it>. Ryanair, *Ryanair* website, accessed from September 2025 to May 2026, <https://www.ryanair.com/it/it>.

Ryanair operates from Milan Bergamo to Tenerife, while easyJet operates from Milan Malpensa to Tenerife. In this case, it is correct to talk about city pair, demonstrating a city as Milan offers the same destination with a departure in different airports of the same city. The analysis will focus on the observation of possible differences regarding price behaviour between these two similar routes operated by different companies.

Data refer to precise periods in which demand increases due to public festivities in Italy. These periods include Immaculate Conception, New Year, Easter and Labour Day. To provide a more complete analysis and have a clearer vision of behaviour of companies, also the week preceding and week following of each period were analysed. The previous and following week aim to the normal trend that generally characterises the market, while the peak week is affected by a festivity.

For New Year, only the following week was analysed, as the preceding week coincides with the Christmas period, making the data unsuitable for a meaningful comparison. Similarly, for Easter, since the preceding week falls in March and still follows the winter schedule, only the following week was included in the analysis and the same was applied for Labour Day that falls on May 1st with the end of April that doesn't represent a clear comparison due also to the presence of the Italian festivity of 25th April (Liberation Day).

Immaculate Conception Day, instead, offers a more complete collection of data including both previous and following week, still maintaining the same weekday for all flights.

Prices of tickets were recorded in tables at fixed intervals before departure, specifically 70, 49, 42, 35, 28, 21, 14, 7, 3, and 1 day prior to the flight. This wide temporal range allows to capture the full evolution of pricing behaviour.

Early observations reflect long-term pricing expectations, while later observations provide insight into short-term adjustments driven by demand closer to the day of departure and remaining capacity.

Particular attention is placed on the last-minute phase, represented by observations at 7, 3, and 1 day before departure. This phase is critical to better understand airline pricing strategies because it reflects the interaction between urgency-driven demand and residual seats, highlighting how prices for flying in the following days may increase.

What I expect is that prices generally increase as departure approaches and are higher during peak demand. On the contrary that during non-peak periods fares are expected to remain lower but still increase over time. This pricing behaviour occurs because closer to the day of departure, the number of seats available on a flight decrease and they become more expensive in order to maximise revenues, following the theory of capacity-based pricing.

Another possible explanation of this phenomenon is the theory of intertemporal price discrimination, according to which airlines sell the same product, a seat on a given flight, at different prices over time to segment passengers according to their willingness to pay. For this reason, capacity-based pricing and intertemporal price discrimination coexist and reinforce each other.

Based on the data and methodology described above, the following section develops the empirical analysis, investigating fare evolution and pricing behaviour.

Chapter 4: Data analysis

4.1 Description of outbound fares

This chapter presents the empirical analysis of collected data with a specific focus on the comparison between peak and non-peak travel periods.

The chapter first provides a graphical analysis of fare dynamics, showing how ticket prices evolve as the departure date approaches during both peak and non-peak weeks. This visual approach highlights differences in pricing patterns across demand conditions, as well as across business and leisure routes.

The analysis then focuses on how easyJet and Ryanair adjust their pricing strategies in response to changes in demand intensity due to peak periods of Italian festivities. By comparing peak and non-peak periods across different types of destinations, the study identifies that airlines adopt more aggressive pricing behaviour during high-demand periods.

To better understand this pricing behaviour, it is necessary to consider that airlines face high fixed capacity costs that must be recovered through ticket sales. This condition means that costs are linked to making the aircraft available, rather than to the number of passengers physically present on board.

Once a flight is scheduled, the airline must bear almost the same costs whether the plane is full or half empty. For this reason, the aircraft needs to generate enough revenue to cover these capacity costs across its maximum available seats. When a flight operates with low load factors, the airline must compensate by charging higher prices on flights or periods with stronger demand, in order to recover the costs that cannot be reduced in off-peak situations. Shortly, the aircraft has fixed cost for each flight and the company needs to consider them and to apply fares that may compensate situations in which the flight is not full.

An example can be useful to grasp this idea: consider a chairlift in the mountain that transports skiers. If a chairlift has four seats, during weekdays it is often not fully occupied, while at weekends and during holidays it typically operates at its full capacity. For this reason, the chairlift must be built and operated to handle peak demand, even if average use is lower on most days.

The same principle is applied to the airline industry, since the costs of operating an aircraft must be based on the maximum number of passengers that a flight can carry, even though the plane will not always be completely full, meaning that airlines face high fixed costs but variable demand, which helps to explain why they rely on flexible pricing and capacity management strategies.

In addition, the chapter includes a quantitative analysis of price variations between peak and non-peak weeks measured in percentage terms, making it possible to clearly measure how much prices increase during holiday periods.

The analysis, finally, compares ticket prices per kilometre across routes. This step helps to identify pricing differences between airlines and to better understand how peaks and non-peaks of demand affect fare levels.

The collected data are analysed using graphical representations that illustrate how ticket prices evolve over the booking period, with the Cartesian axes showing respectively ticket prices on the Y-axis and the number of days before departure on the X-axis.

In this section, the analysis begins with outbound flights to leisure destinations and then moves on to outbound flights to business destinations. Finally, inbound fares will be discussed following the same order.

In the following graphs, dashed lines correspond to peak demand periods, whereas solid lines refer to non-peak dates.

Figure 4.1: price trend for the route MXP-TFS operated by easyJet, outbound fares for 8th December.

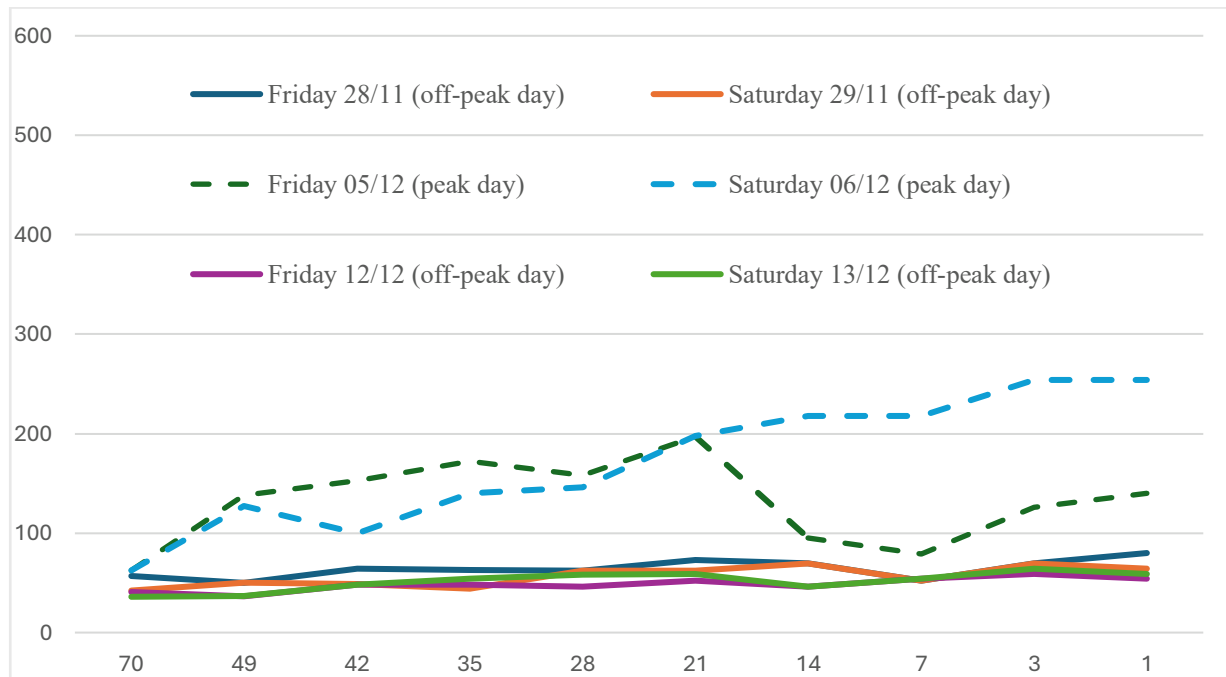
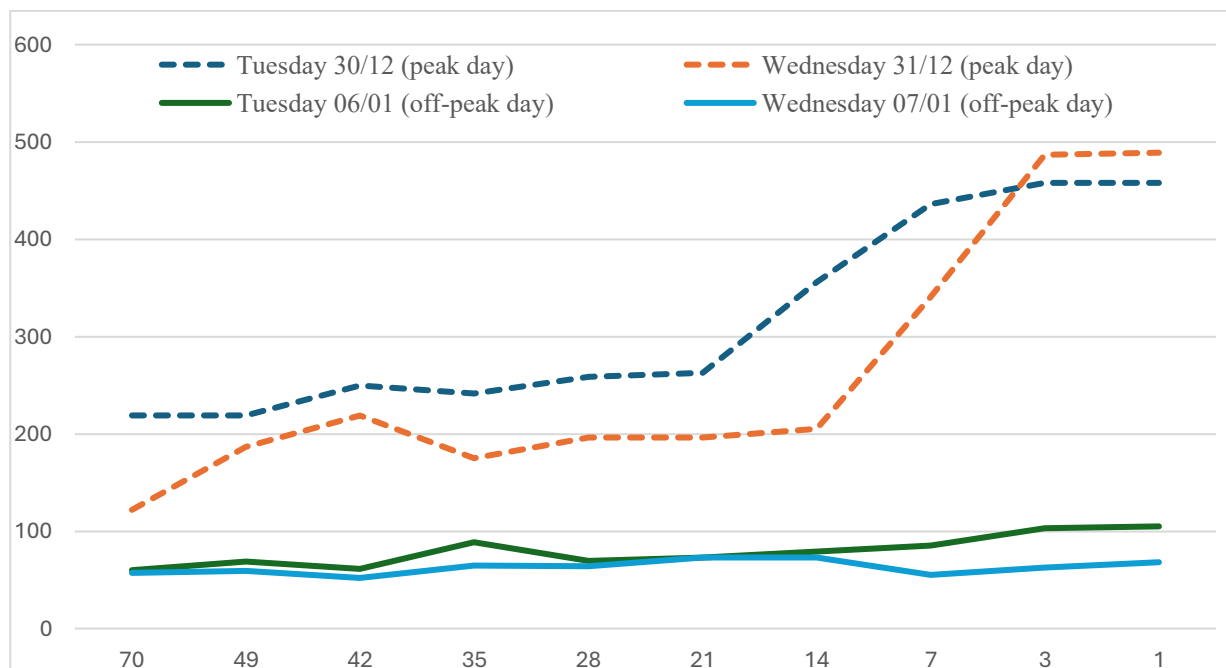


Figure 4.2: price trend for the route MXP-TFS operated by easyJet, outbound fares for New Year.



The figures 4.1 and 4.2 illustrate the route Milan Malpensa–Tenerife operated by EasyJet. It is a pure leisure demand profile, with pricing heavily influenced by Italian public holidays.

For example, peak dates aligned with the Immaculate Conception extended weekend with departure on Friday 5th and Saturday 6th December 2025, show that prices increase 49–42 days before departure, reaching levels of €150–175, compared to non-peak dates where prices remain below €70 at the same booking point.

Few days before departure tickets cost between €125–139 for Friday and around €250 on Saturday. During prior and post periods, days precedent to departure cost between €60–70.

In general, outbound fares for flying on Friday 5th December 2025 (the peak departure date) are higher than both surrounding weeks. Compared with 28th November 2025, prices for flying on 5th December 2025 are between +48% and +319% higher, while compared to 12th December 2025 they are between +74% and +369% higher, depending on how far in advance the ticket is booked.

Thanks to these percentage it is possible to observe that at some point of the analysed period (between 70 and 1 days before departure), the peak day fare is three to four times higher than on non-peak days, revealing an extremely strong holiday-driven concentration of demand around the peak departure date.

Each percentage is computed as:

$$\frac{(\text{price on peak day} - \text{price of the week before or after})}{\text{price of the week before or after}}$$

This result is calculated in percentage terms.

At New Year the effect is stronger, with 30th and 31st December 2025 clearly emerging as peak dates.

Prices for flying on Tuesday 30th December 2025 are already extremely high in the very early booking horizon (70 days prior to departure) and remain stable or increase over time. This result indicates that demand for this date is already high well in advance. On Wednesday 31st December 2025 departure follows a similar pattern, characterised by lower starting fares that increase quickly between 49 and 42 days before departure, stabilising around €195.

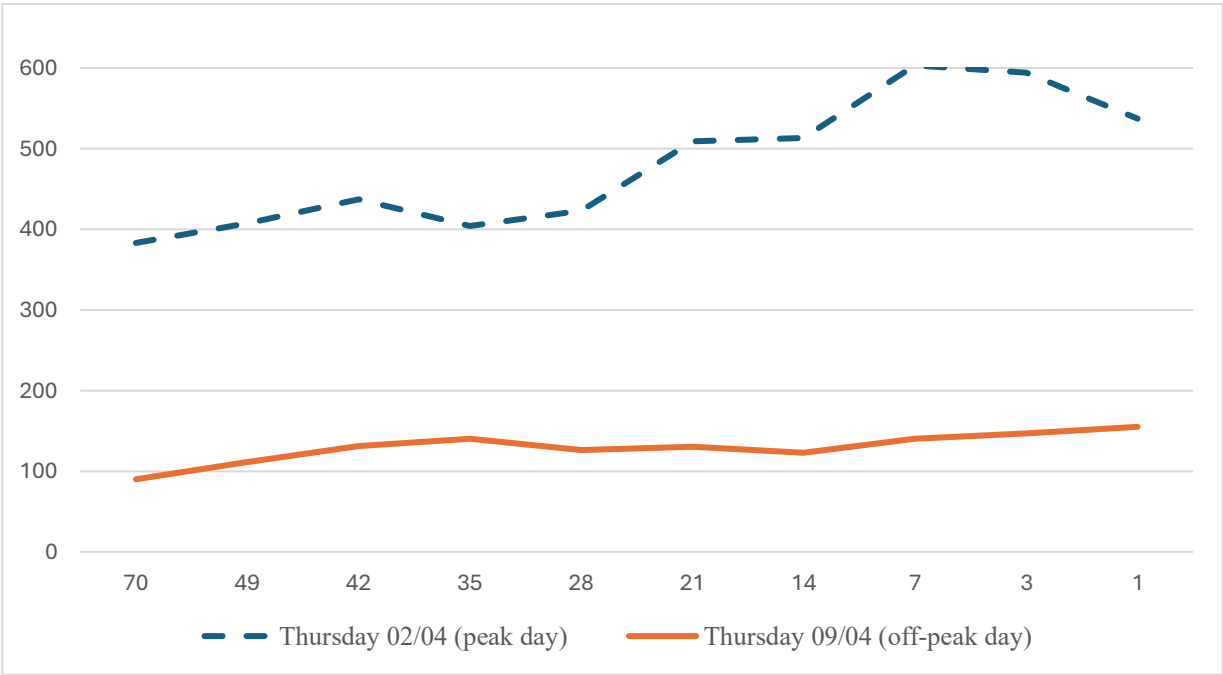
The persistent gap between the two peak days suggests that travellers attach a higher value to travelling before New Year's Eve rather than on the day itself and confirms that passengers pay for a higher ticket on Tuesday.

It occurs because demand around New Year’s Eve is highly concentrated and time-constrained: many travellers are willing to pay significantly higher prices in order to travel on those specific dates, while alternative travel days are perceived as imperfect substitutes. This feature allows airlines to exploit differences in willingness to pay and charge substantial price premia during the peak period.

Fares for flying on Tuesday 30th December 2025 show again an extremely high New Year peak compared to the following Tuesday, 6th January 2026. The percentage premium of the peak day over the post-peak week ranges from about +170% to over +410%, depending on how far in advance the ticket is booked.

This result means that, over the booking period, fares on peak day are three to five times higher than on 6th January 2026, confirming that the New Year departure generates a much stronger demand.

Figure 4.3: price trend for the route MXP-TFS operated by easyJet, outbound fares for Easter.



Also during the Easter period, the Milan Malpensa–Tenerife route operated by easyJet exhibits a clear price increase pattern.

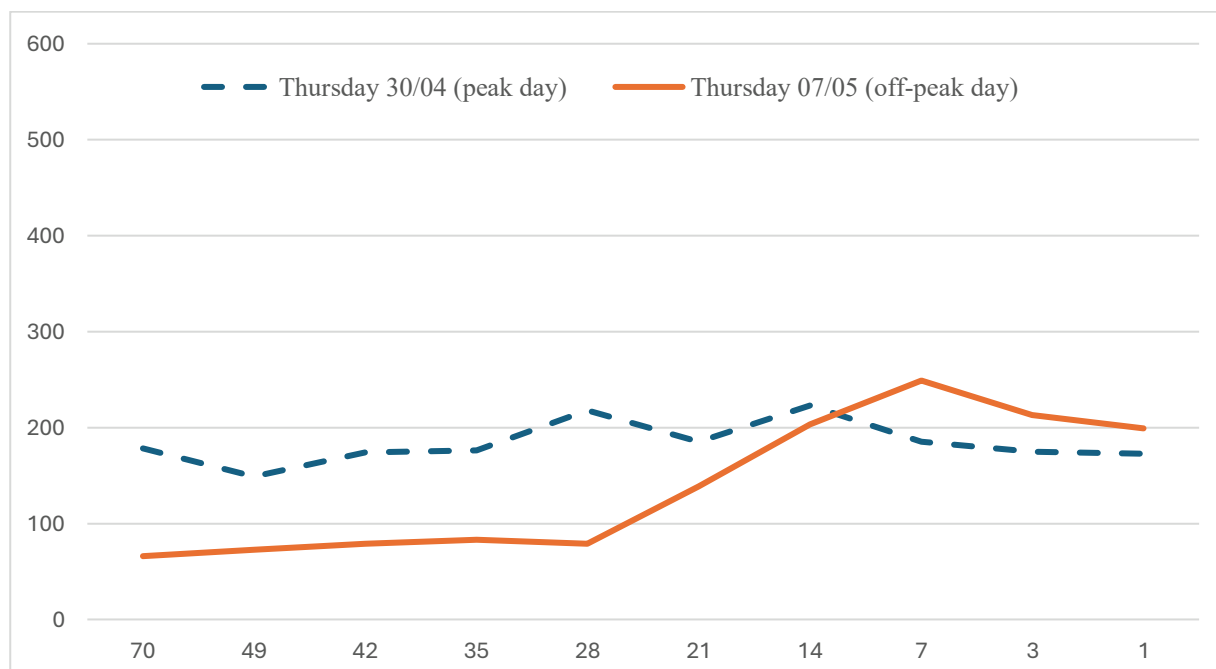
The figure 4.3 illustrates the outbound flights for flying on Thursday 2nd April 2026 compared with the following Thursday 9th April 2026. The first date represents a peak period, as it corresponds to the Thursday immediately preceding the Easter extended weekend, when demand is particularly high. In contrast, the following Thursday, falls in the post-holiday period and therefore is considered a normal, non-peak travel date.

As shown in the graph, prices for flying on Thursday 2nd April 2026 are significantly higher across the entire booking period compared to flying on Thursday of the following week. Already at 70 days before departure, fares are extremely high (around €380), compared to only €89 for the following week. This substantial price gap persists throughout the entire booking period, with peak day fares remaining above €400 and reaching a maximum of over €600 closer to departure.

Fares for flying on Thursday 9th April 2026 remain relatively stable with values between €90 and €155, reflecting a standard demand profile with no significant peak pressure.

The difference expressed in percentage between the peak week and the following week further highlights this pattern, in fact the premium of the peak day over the post-peak date ranges from +189% to over +330%, depending on the booking horizon.

Figure 4.4: price trend for the route MXP-TFS operated by easyJet, outbound fares for Labour Day.



The figure 4.4 illustrates the outbound flights for flying on Thursday 30th April 2026 compared with the following Thursday, 7th May 2026. The first date represents the peak period, as it corresponds to the Thursday immediately preceding the Labour Day extended weekend, when demand is particularly high. In contrast, Thursday 7th May 2026 falls in the post-holiday period and therefore is considered a normal off-peak travel date.

As shown in the graph, prices for flying on Thursday 30th April 2026 are significantly higher across the entire booking period compared to fares for flying on the following Thursday.

Already at 70 days before departure, fares show a price gap between the two weeks that persists throughout most of the booking period, with peak day fares remaining consistently above €150 and reaching a maximum of approximately €220 closer to departure. Fares for flying on Thursday 7th May 2026 remain relatively stable until one week before departure, when they reach €220. The percentage variation highlights a premium for the Labour Day extended weekend departure of +170% that gradually narrows until it reverses in the final week, where the post-holiday week becomes more expensive, resulting in negative variations reaching –13% just one day before departure.

The analysis now shifts towards the Milan Bergamo–Tenerife route operated by Ryanair during the same festivities, that reinforces the same leisure-driven dynamics, but with even greater price volatility.

For peak departures during the early December holiday period, prices exceed €160–180 already 42–35 days before departure, compared to non-peak dates that remain below €60 at the same point, creating a price differential of more than €120 per one-way flight between peak and off-peak departures.

On non-peak dates, fares are extremely low throughout the booking period, often between €30 and €55. After the peak, fares rapidly normalise, again falling below €60. This pattern shows that airlines focus on earning more during high-demand leisure periods, while offering very low fares outside these times.

As in the flight operated by easyJet, outbound fares for flying on Friday 5th December 2025 show a clear peak effect compared with the surrounding weeks. Using the average of the percentage differences versus 28th November and 12th December 2025, the peak-week premium ranges from about +11% to over +100–150% close to departure. This observation shows that when tickets are bought far in advance, the 5th of December 2025 departure is only slightly more expensive than adjacent weeks and it does not show a strong increment yet, but as the travel date approaches the price of the peak day can become up to four times higher than the normal level, reflecting a strong concentration of holiday demand.

The 30th of December 2025 departure has fares already exceeding €230–240 at long booking distances and reaching €260 around one month before departure. For flying on Wednesday 31st December 2025, prices rise from approximately €150–170 at the beginning of the analysis to around €200–220 closer to departure, remaining consistently well above non-peak dates. The differential between Tuesday 30th and Wednesday 31st December 2025 is evident, reinforcing the idea that demand concentrates more strongly on departures ahead of New Year's Eve.

After New Year, prices for flying in early January quickly fall to much lower levels, usually between €60–90, with no sign of continued high demand from the peak period. The peak-day premium ranges from about +60% to over +300%, meaning that the New Year departure typically costs between one and a half to four times more than the following week.

The Easter period follows a similar pattern of high price sensitivity and picks of demand due to the festivity. For the peak departure on Thursday 2nd April 2026, fares start at a high baseline of approximately €219 even 70 days before departure, showing an upward trend as the travel date approaches. Prices exceed €310 two weeks before departure and peak at €357 just one day before it.

In contrast, fares on the following week, Thursday 9th April 2026, remain significantly lower throughout the booking period. On non-peak dates, prices often fluctuate between €48 and €125, reflecting the rapid normalization of fares once the peak effect of the holiday vanishes.

The price differential is also highlighted by the percentage variation between the two dates. The analysis shows a range between +284% with a peak of +390% for flying on the peak week of Easter compared to the following one. This result confirms that the peak-day premium remains extremely high, with the holiday departure costing between double and nearly five times more than the non-peak alternative.

The extended weekend of Labour Day confirms the usual pattern of peak vs. off-peak periods where prices for flying on the peak day Thursday 30th April 2026 remain higher than prices for flying on following week (€75 compared to €40).

The price gap increases significantly as the departure date approaches, with peak fares reaching €208 the day before departure. On the contrary, fares for flying on Thursday 7th May 2026 remain lower and more volatile, mostly fluctuating between €40 and €90.

These trends suggest that both leisure destinations have great differences in price caused by peak days of holiday, and that both companies charge higher fares already at early stage of the booking. It is notable that higher costs are present during major festivities such as New Year and Easter but also during the Immaculate Conception and Labour Day the same trend is confirmed.

The analysis now focuses on business routes. An example is the Milan Linate–London Gatwick route operated by easyJet.

Peak dates around the Immaculate Conception holiday (Friday 5th and Saturday 6th December 2025) show only a light increment, of €20–30 compared to non-peak departures at the same booking distance, rather than doubling or tripling as seen on leisure routes with destination to the Canarian island.

Across non-peak dates, fares remain structurally higher, generally ranging between €90–130 even 70 days before departure. As departure approaches, both peak and non-peak dates experience a gradual price increase, with last-minute fares remaining strong.

Prices do not drop sharply after the holiday period, showing that demand remains stable and is mainly driven by business and frequent travellers rather than by holiday travel. This pattern shows that business travellers are less sensitive to price in fact they continue to travel even in non-peak periods, due to the reasons of their trips.

In this case as well, it is useful to see how the percentage between prices changes among the three weeks. Even when tickets are purchased far in advance, the average premium of the peak departure versus the previous and following Friday (respectively 28th November and 12th December 2025) is already around +60–70%, meaning that the peak departure is structurally more expensive than adjacent weeks. As departure approaches the premium rises, reaching values above +300% and even exceeding +400%, which implies that late bookers can face fares that are four to five times higher than those available in the surrounding weeks.

It is important to understand that saying there is less difference in price, does not mean prices are low but it means among the three weeks prices does not change a lot, highlighting a less sensitivity to demand due to the fact business destinations are frequented by usual travellers and not by leisure ones.

The New Year period generates a much more contained pricing response. Departures during peak days show higher fares compared to early January, but the increase is gradual, with prices between €120–150. The absence of a clear early peak suggests that demand for New Year travel on this route is more balanced and, the price difference between flying on Tuesday 30th and flying on Wednesday 31st December 2025 remains limited, indicating that the exact day of travel around New Year is less critical than on leisure routes and confirming that business travellers need to fly on specific days so they are not strongly affected by holiday periods.

Early January departures show only a modest reduction in fares, remaining well above leisure-route levels. Prices for flying on Tuesday 30th December 2025 remain consistently higher than on 6th January 2026, but the difference is smaller than on the leisure routes. The premium over the post-peak week ranges from about 10% to around 260%. This little increment indicates that, while there is a clear holiday uplift, LIN–LGW is less driven by seasonal leisure peaks.

Easter period confirms the pattern that business routes have a more complex pricing dynamic than leisure-oriented destinations.

Fares for flying on the peak departure (Thursday 2nd April 2026) start at an already high baseline of €251 and experience a gradual decrease toward the departure date, eventually stabilizing around €150. This trend suggests that on business routes, early bookings might be influenced by anticipated demand that does not fully materialize as a late-minute spike.

Across non-peak dates, such as Thursday 9th April 2026, fares remain structurally stable, generally ranging between €70 and €187. Unlike the leisure routes, where non-peak fares remain low, here the prices for the non-peak departure rise closer to the flight date, even surpassing the peak-day fares in the final days of the booking period, closer to departure date. This pattern confirms that business travellers are less sensitive to holiday-specific dates and that demand for London remains stable and consistently driven by frequent travellers rather than purely by holiday travellers, who tend to buy tickets more influenced by prices and periods.

The percentage variation reinforces this dynamic. The peak-day premium starts at +255% compared to the following week, but this gap narrows significantly as departure approaches where the variation turns negative (–18% to –20%), and the non-peak date becomes more expensive than the Thursday of Easter week.

The same route operates during the Labour Day extended weekend, where prices for flying on Thursday 30th April 2026 are higher compared to fares for flying on the following Thursday. Already at 70 days before departure, fares are quite high (around €130), compared to only €45 for flying on the same weekday of the following week. This substantial price gap persists throughout the entire booking period, with peak fares showing a strong upward trend, reaching over €250 three weeks before the flight and peaking €307 one day before departure.

Instead, fares for flying on Thursday 7th May 2026 remain stable with values between €45 and €81, reflecting a standard demand profile for a business route that does not experience a peak during days immediately before departure.

The difference expressed in percentage between the peak week and the following week ranges from +166% to a maximum of +420%, depending on the booking moment.

Now the analysis focuses on the business route Malpensa-Manchester operated by Ryanair.

Figure 4.5: price trend for the route MXP-MAN operated by Ryanair, outbound for 8th December.

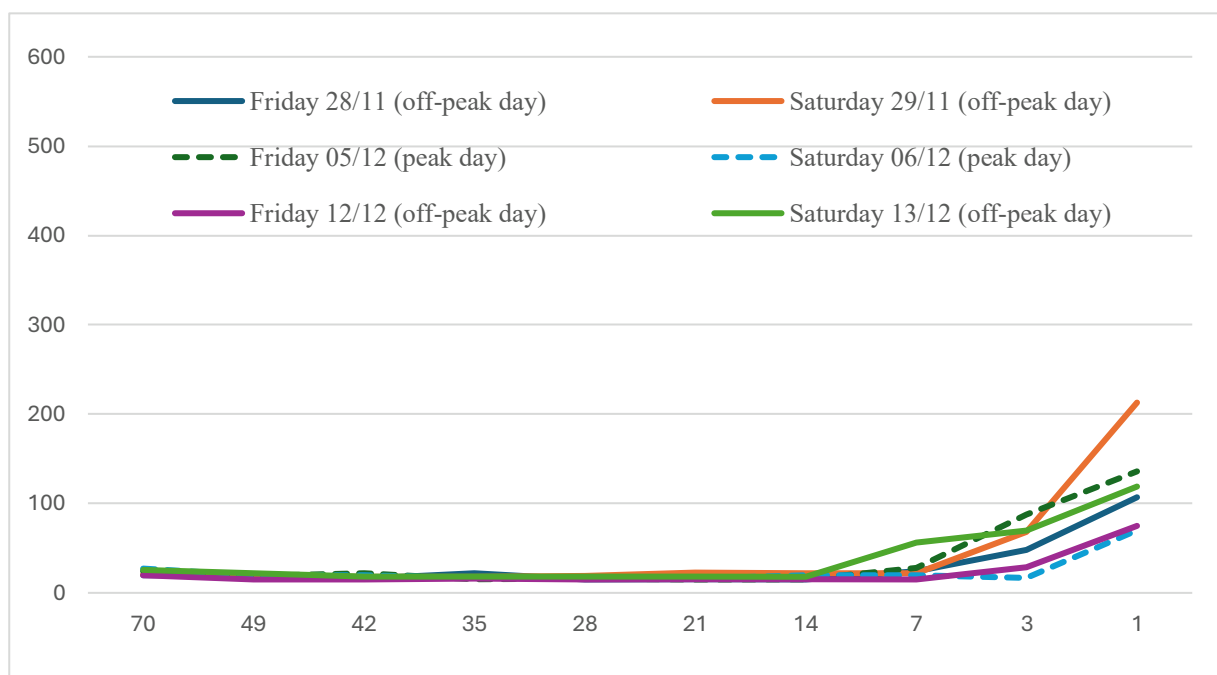
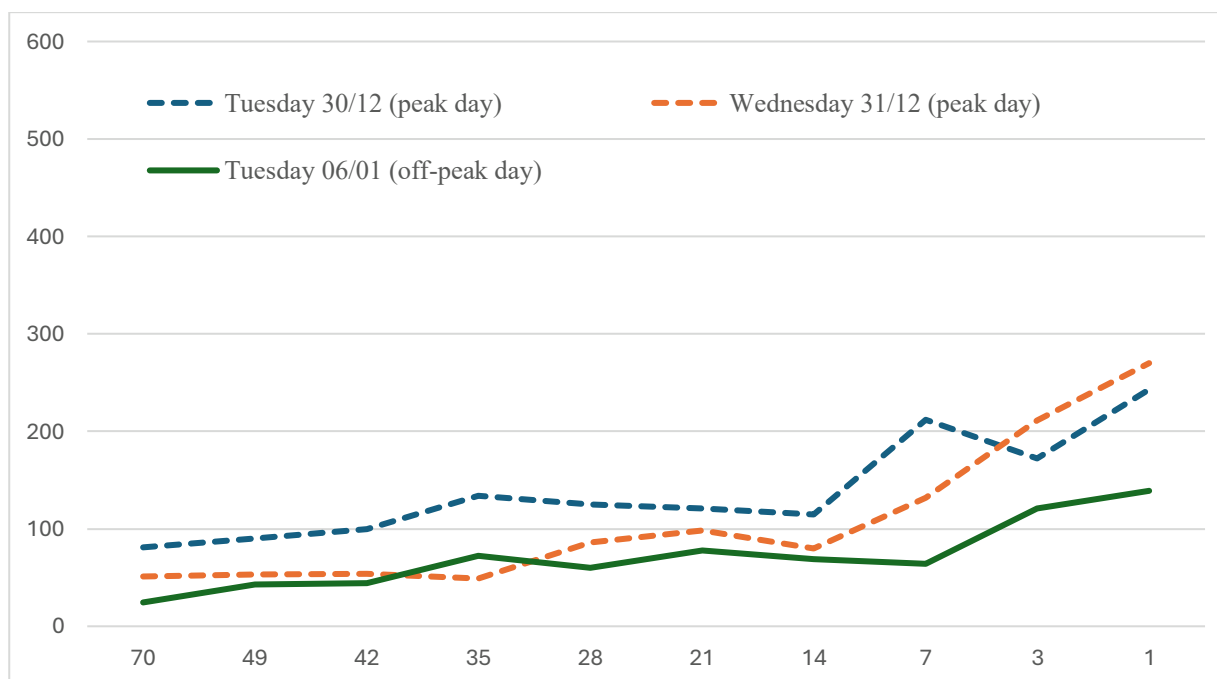


Figure 4.6: price trend for the route MXP-MAN operated by Ryanair, outbound for New Year.



As it is visible in figures 4.5 and 4.6, the Malpensa–Manchester business route is characterised by non-peak fares in late November and Mid December typically between €70–110, maintaining moderate levels across the booking window.

During peak periods as the extended weekend of the Immaculate Conception on 8th December 2025, usually fares increase by €15–30 compared to non-peak levels, and do not reach extreme values. Using the average of the percentage between weeks, values range from about +33% at the longest booking horizon (70 days before departure) to become negative closer to departure, reaching –80% to –110%. This result means that while far in advance the 5th of December 2025 departure can be slightly more expensive than adjacent weeks, as the travel date approaches the peak week becomes cheaper than both the pre and post weeks. In practice, late bookers find lower fares on Friday 5th December 2025 indicating that demand on this city route is not driven by the holiday peak and therefore prices do not increase few days before departure.

Fares for flying on Tuesday 30th and Wednesday 31st December 2025 are higher than in early January, and the increase is moderate. Even here, prices rise gradually as departure approaches, without sharp early peaks.

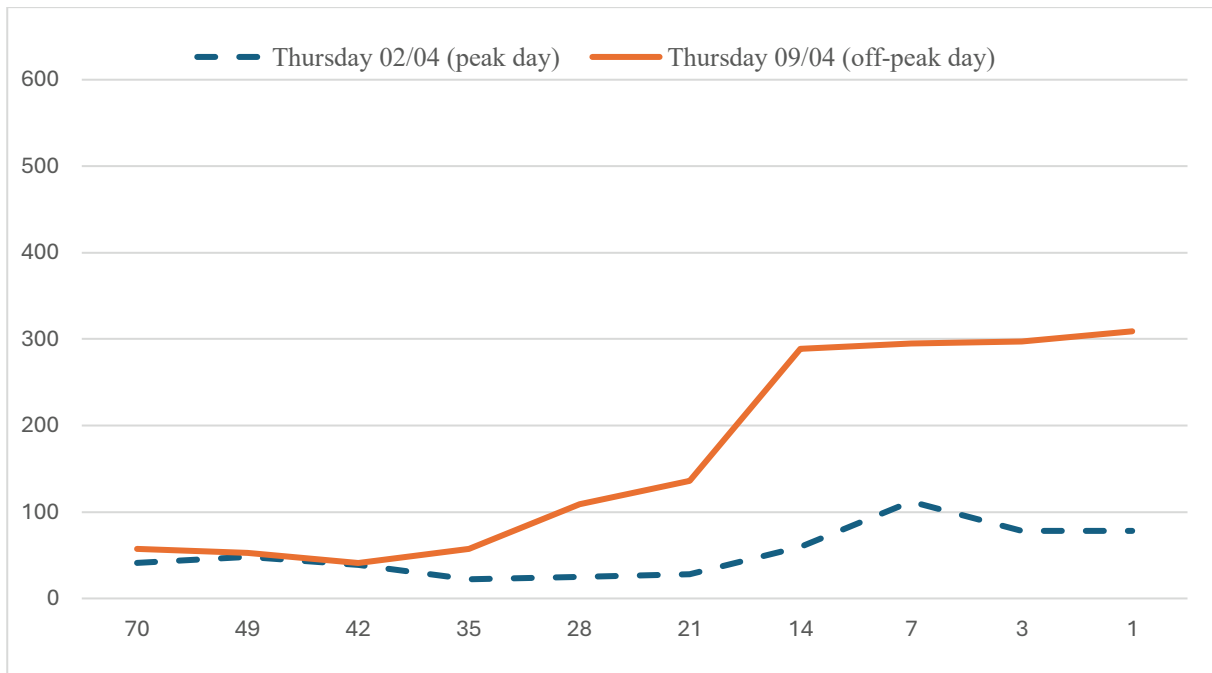
As for the business route to London operated by easyJet, there is little difference between the two peak days suggesting that demand is driven more by travel needs than by the symbolic value of New Year's Eve. After New Year, fares follow the same pattern, falling slightly but remaining stable.

Fares for flying on Tuesday 30th December 2025 are higher compared to flying on Tuesday 6th January 2026, with the premium over the post-peak week that ranges from about +40% to just over +230%, meaning that the New Year departure is typically between around one and just over three times more expensive than the week after.

This limited uplift suggests that demand on this route is weakly influenced by holiday timing and it is instead driven by work-related travel. From this consideration it is evident that Manchester is not a weekend destination very popular among leisure passenger, but it is preferred as a business destination.

Easter shows a pattern coherent with the previous cases of demand peaks. The graph below indicates the important difference between flying during the two weeks, respectively Thursday 2nd April 2026 and Thursday 9th April 2026.

Figure 4.7: price trend for the route MXP-MAN operated by Ryanair, outbound for Easter.

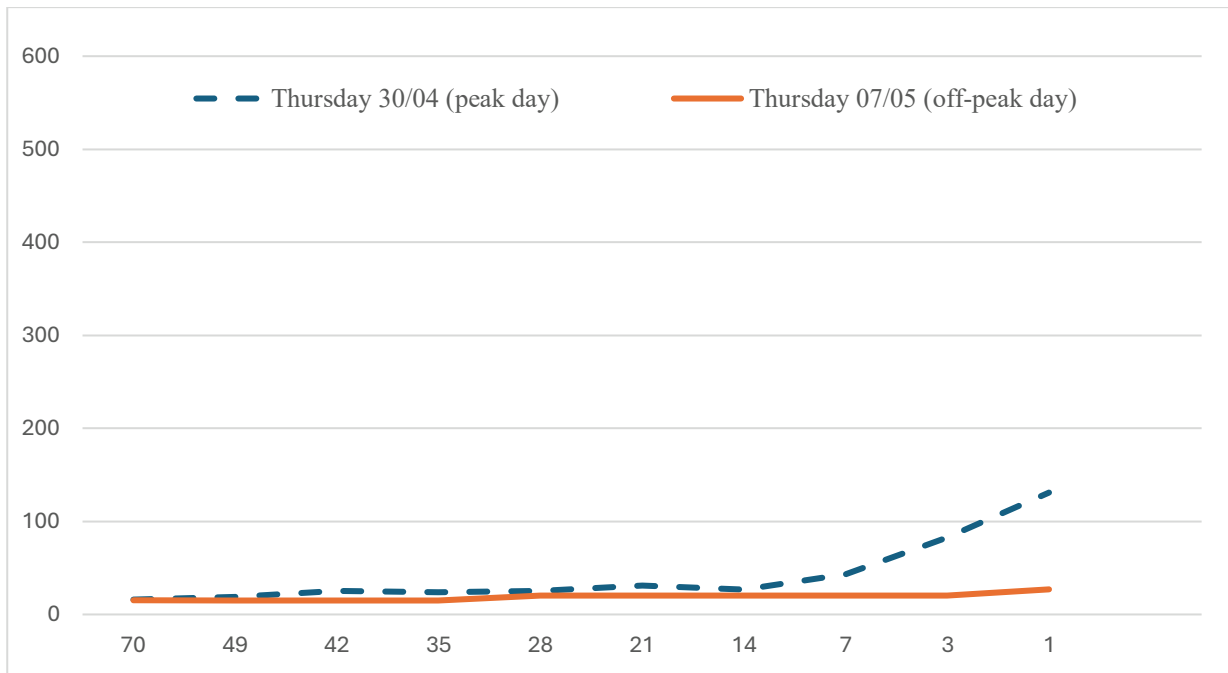


Fares for flying on the peak departure on Thursday 2nd April 2026 do not reach extreme values, remaining remarkably low throughout the booking period. Prices start at €40 and, despite minor fluctuations, stay within the €22–112 range, eventually closing at €77 just one day before departure.

In contrast, fares for the following week, with departure on Thursday 9th April 2026, show a steeper upward trend. While they start at a similar level, they experience a grow three weeks before departure, reaching €308. This inversion shows that flying on Thursday 2nd April is less expensive than flying on the following week, and indicates that for this specific route, the post-Easter week exhibits significantly higher demand than the actual holiday peak day.

The percentage variation confirms this atypical trend. The peak-day premium is negative across the entire booking horizon, starting at –28% and dropping to –79% close to departure, meaning that flying on the peak day is less expensive than flying on the following week. This inversion is singular, as festive periods usually see a heavy concentration of demand that leads to higher prices.

Figure 4.8: price trend for the route MXP-MAN operated by Ryanair, outbound for Labour Day.



As the figure 4.8 shows, prices for flying on Thursday 30th April 2026 remain relatively low and stable for the majority of the booking period, starting with values around €16.

However, a significant upward trend emerges in the final two weeks, with fares rising from €27 to a peak of nearly €131 just one day before departure. Fares for flying on Thursday 7th May 2026 remain flat throughout the entire period, starting from €19 and reaching a maximum of €27.

The difference expressed in percentage between the peak week and the following week further highlights this pattern according to which flying on the peak day ends to be four times more expensive than the following week.

Here, the trend remains coherent with previous results obtained for other outbound routes, remarking outbound fares usually are higher during peak days.

4.2 Description of inbound fares

It is interesting to see how inbound flights behave and how they differ from outbound flights. This section presents a complete analysis together with main differences compared with outbound fares.

A first clear similarity between outbound and inbound concerns the presence of strong peak effects on leisure routes, in fact as observed for outbound flights, inbound flights to Milan from leisure destinations such as Tenerife show pronounced price increments during holiday periods, especially on peak days. In both directions, airlines apply higher fares on peak dates compared to surrounding weeks, confirming that pricing is strongly driven by predictable demand concentration.

Another common feature between outbound and inbound flights is the increase in prices as departure approaches. In both cases, fares tend to rise closer to the travel date, reflecting capacity constraints and intertemporal price discrimination. Late bookers consistently face higher prices, especially on peak days, suggesting that airlines exploit differences in willingness to pay over the booking period regardless of flight direction.

However, inbound flights often display even stronger pricing pressure during holiday periods. This pattern is particularly evident for New Year and Easter inbound flights, where prices remain extremely high even 70 days before departure. This trend occurs because many travellers have limited flexibility regarding the return date that is on Sunday (4th January 2026) and Monday (6th April 2026). The result suggests travellers have to return to Italy on a specific day that coincides with the end of holiday and confirms people on leisure routes are more time sensitive.

In contrast, outbound flights typically show greater variation across booking horizons, with some peak effects emerging only several weeks before departure. This result indicates that outbound travel decisions may allow slightly more flexibility, while the return journey is often constrained by fixed work or school schedules.

The comparison also highlights consistent differences between leisure and business routes in both outbound and inbound segments. On leisure routes, prices rise sharply during holidays for both outbound and inbound flights, showing strong peaks and large price differences. On business routes, instead, prices are much more stable, with limited variation between peak and non-peak periods, even during festive dates.

For the Immaculate Conception period, Monday 8th December 2025 is the peak date compared with the 1st and 15th, respectively the previous and the following Monday.

On the MXP–TFS route operated by easyJet, inbound fares are consistently high across the all period of booking. In effect, it is observable that prices start at elevated levels even several weeks before departure and increase sharply as the return date approaches, reaching values that, close to departure, exceed approximately €230–270.

In non-peak previous week, with departure on Monday 1st December, inbound fares increase when departure approaches reaching an average of €250. In non-peak following week, with departure on December 15th, fares remain lower, in a range between €40–70.

For New Year' period the peak date is the first Sunday of January 2026 (4th). Fares are very high even weeks before departure with prices that never go under €512 and reach €730 as extreme value. This demonstration highlights that Sunday is extremely expensive to travel back to Milan, due to the end of vacation for Christmas time. The following week prices are lower, generally between €120–225.

For the Easter holiday period, Monday 6th April 2026 represents the peak return date compared to the following Monday, 13th April 2026. On the MXP–TFS route operated by easyJet, inbound fares are consistently high across the entire period of booking with prices starting from €292 and reaching €570 closer to departure. In the non-peak following week, inbound fares remain lower, generally ranging between €92 and €218. This result highlights a clear price differential: flying back on the peak date can cost over €350 more than the following week. The percentage variation confirms this trend, with the peak-day premium already starting at +215%.

For the Labour Day period, Sunday 3rd May 2026 represents the peak return date compared to the following Sunday, 10th May 2026. On the MXP–TFS route operated by easyJet, inbound fares are consistently high across the entire period of booking, starting from €219 even 70 days before departure and stabilizing around €325 on the final period.

In contrast, inbound fares for the non-peak following week remain significantly lower, generally ranging between €124 and €168. This result highlights a clear price differential: flying back on the peak date can cost approximately €170 to €200 more than the following week, reflecting the concentrated demand on the Sunday of the extended weekend. The percentage variation confirms this trend, with the peak-day premium starting at +67% and reaching a maximum of +129% two weeks before the return date.

The BGY–TFS route operated by Ryanair, displays a more moderate pricing response. During the Immaculate Conception period fares increase, but the curve is flatter and overall price levels remain lower than MXP–TFS, with peak values staying below those observed on the MXP route. The previous and following inbound fares show a similar pattern with less strong increments and a more stable trend. In effect, prices for flying on Monday 8th December 2025 reach €180–200 while the previous week has prices between €85–129 and the following week €29–65.

In both inbound flights from Tenerife, the increase in prices near the peak date is very clear. These increments happen because many people travel for holidays during the same period, and there is little flexibility in choosing the return day.

Flying to Bergamo with Ryanair in New Year period is less expensive than flying with easyJet to Milan Malpensa, it costs around €350–380 on the 4th of January 2026 and €130–170 on the 11th of January 2026. These amounts represent almost half of those required to fly to Malpensa on the same day.

The BGY–TFS route operated by Ryanair displays a more moderate pricing response for the Easter return. For the peak date of Monday 6th April 2026, fares increase as the date approaches, but the curve is flatter and overall price levels remain lower than MXP–TFS. Prices start at €148 and reach a maximum value of €306 close to departure. While the trend is upward, the peak values stay significantly below those observed on the Malpensa route, representing almost half of the cost of flying back to MXP on the same day.

The following inbound week with departure on Monday 13th April shows a similar stable pattern with prices between €60 and €226. The percentage variation between the two weeks is less extreme than the leisure routes to Malpensa, starting at +144% and narrowing to +35% in the final days before departure.

The BGY–TFS route operated by Ryanair displays a more moderate pricing response for the Labour Day return. For the peak date of Sunday 3rd May 2026, fares still increase as the date approaches, but the curve is flatter compared to the Malpensa route, with prices starting at €197 and reaching values around €310–380.

The following inbound week with departure on Sunday 10th May shows a similar stable pattern. The percentage variation between the two weeks is less extreme than other leisure routes, starting at +41% and narrowing significantly to just +9% in the final day before departure. This result indicates that even if a holiday uplift exists, the price gap tends to close as the departure nears.

In this case the two airlines show different reactions to the same holiday demand.

On the peak return date, easyJet maintains a higher price baseline, starting from €219 compared to Ryanair's €197. While easyJet's prices follow a more linear upward trend toward departure, Ryanair experiences an earlier price spike, reaching its maximum value of €386 four weeks before the flight.

The most significant difference lies in the peak-day premium and the behaviour of the following week. For easyJet, the price gap remains constant throughout the booking period, with the peak date costing more than double on the post-peak date. Instead, Ryanair's fares for the peak and non-peak weeks tend to converge as the flight date approaches, with the premium dropping from a high of +153% to only +9% in the final stage. This evidence suggests that while easyJet enforces a rigid holiday pricing structure, Ryanair's pricing strategy is more influenced by late-minute volatility.

The analysis now focuses on inbound flights serving business destinations.

In the MXP–MAN business route, inbound fares increase for flying on the 8th of December 2025, but the difference between the peak week and the pre and post-peak weeks is less pronounced. Prices remain relatively stable suggesting that this destination, as said for the outbound flight, is not a primary choice for a leisure weekend and it is less affected by demand changes.

The same pattern is shared by LIN–LGW route, that has inbound fares up to €370–450 approaching the 8th of December 2025 while fares of €40–100 and €75–130€ in the previous and following week, respectively Monday 1st and 15th. It is notable that also in this case few days before departure fares increase, reaching up to €218 on the 15th of December 2025.

Concerning New Year period for business routes, flying back to Milan from London Gatwick costs around €90–130 on the 4th of January 2026 and less than €80 on January 11th 2026.

Instead flying to Milan from Manchester, costs €17–28 in a non-peak day, reaching €55–70 on the 4th of January 2026. These prices show a moderate difference between peak and non-peak days and confirm the difference is not too evident in business destinations, that are less influenced by peak periods of holidays.

Return flights from London for the Easter peak (Monday 6th April 2026) start at €148, reaching a maximum of €226 close to departure. In contrast, fares for flying on the following week drop significantly, ranging between €36 and €96. This difference creates a sharp percentage gap: the peak return carries a premium that starts at +303% and remains at +134% near the flight date, confirming that returning from the holiday break costs between two and four times more than a standard week.

On the MXP–MAN route operated by Ryanair, inbound fares for flying on Monday 6th April are more moderate with values between €35 and €122. The following week maintains much lower fares, precisely with values between €19 and €38.

The analysis of business-oriented routes confirms that also the Labour Day holiday period significantly influences inbound pricing. Returning to Milan from London Gatwick on the holiday peak of Sunday 3rd May 2026 is consistently more expensive than the following week, with fares starting at approximately €68 and fluctuating up to €107 as the departure date nears. In contrast, the post-holiday week of Sunday 10th May 2026 displays a much lower and more stable price profile, with fares ranging between €30 and €48.

This result demonstrates that even on business routes, the concentration of holiday demand can cause effects on inbound flights.

The same phenomenon is confirmed by the inbound flight from Manchester to Milan Malpensa operated by Ryanair. For the peak return on Sunday 3rd May 2026, fares follow an upward trend, starting at approximately €60 and reaching €199 before departure. In comparison, the following week of Sunday 10th May 2026 maintains a low and stable price profile, with fares consistently ranging between €16 and €48 throughout the entire booking period.

The premium for the holiday peak starts at +131% and reaches a maximum of +424% two weeks before the flight, confirming that returning on the holiday weekend for this route can cost up to five times more than a standard return during a non-peak week.

In conclusion, business destinations are generally less influenced by holiday demand than leisure destinations and prices do not increase as much during festive periods. However, even on business routes, ticket prices usually rise when the departure date gets closer.

The comparison between the 8th of December period and the New Year period highlights two distinct peak dynamics, both driven by holidays but with different intensity and demand composition. As for the outbound fares, both periods show higher inbound fares compared to surrounding weeks, with the New Year peak that is consistently stronger, and characterized by higher absolute price levels.

Also on Monday of Easter and Sunday of Labour Day extended weekend prices remain higher compared to the same flights of the following week.

To conclude, the analysis of inbound flights highlights that business destinations typically show more moderate price increases during festive periods, but holiday-related demand still creates substantial price gaps. In addition, it confirms that across all analysed routes, returning on the peak holiday day is more expensive than returning to Italy on the surrounding weeks.

Table 4.9: range price premium.

	MXP-TFS (easyJet)	MXP-TFS (easyJet)	BGY-TFS (Ryanair)	BGY-TFS (Ryanair)	LIN-LGW (easyJet)	LIN-LGW (easyJet)	MXP-MAN (Ryanair)	MXP-MAN (Ryanair)
	week before	week after	week before	week after	week before	week after	week before	week after
Immaculate Conception	48% / 319%	74% / 369%	15% / 482%	7% / 247%	16% / 265%	53% / 275%	75% / 31%	76% / 17%
New Year		173% / 413%		60% / 311%		11% / 262%		42% / 231%
Easter		189% / 331%		94% / 390%		20% / 255%		79% / 5%
Labour Day		26% / 170%		6% / 220%		166% / 420%		3% / 385%

This table provides a summary that looks like a clear visual overview of the price premium observed around major festivities. Values are expressed as percentages and indicate how much prices during peak days differ from prices observed in non-peak periods.

For each festivity, the table reports the minimum and maximum price variation calculated by comparing each peak day with the same weekday in the surrounding non-peak weeks (the week before and/or the week after the holiday).

Red values indicate a positive price premium meaning that flying on the peak day is more expensive than flying during the comparison week (before or after the holiday). Instead, values in green indicate a negative price premium in which flying during peak dates costs less than surrounding weeks.

As notable in the table, for the routes directed toward Tenerife operated by both airlines, there is an extraordinary difference in pricing, characterized by values highlighted in red. These variations often exceed 300% or even 400%, indicating that these leisure routes are extremely sensitive to holiday demand, with prices peaking significantly both in the weeks before and after the festivities analysed.

A very similar pattern is observed for London where the percentages are slightly lower than those of Tenerife but still remain consistently high and marked in red across almost all analysed periods, with maximum peaks reaching up to 275%. This result demonstrates a clear similarity between these two destinations: for both Tenerife and London, holiday generates a significant and systematic price increase, showing that the "holiday effect" forces passengers to pay a substantial premium.

In contrast, the Manchester route presents a different scenario. Analysing this destination reveals that the percentages are frequently marked in green, representing a negative premium. This result suggests that for Manchester, prices often drop significantly during these festive windows compared to non-peak weeks. An efficient explanation regards the fact Manchester is a destination frequented by business travellers who usually are less price sensitive and travel outside of holiday periods.

In conclusion, the results show that the holiday effect is not uniform across destinations but strongly depends on the nature of demand associated with each route.

In general, the table illustrates that flying during holiday peak days is generally much more expensive than during non-peak weeks. This trend is highlighted by the prevalence of red values indicating positive price premiums, which reach extreme levels on leisure routes.

However, notable exceptions occur within business-oriented routes where flying to London is less expensive on the week after Easter and also during the Labour Day period where price increments are more moderate, with minimum premiums as low as +3% for MXP–MAN and +6% for BGY–TFS.

This data once confirms that while holiday demand typically drives prices up, business routes are less susceptible to these shifts, occasionally resulting in lower costs during peak dates.

4.3 Comparison between airlines

Comparing the two similar routes to Tenerife in peak-periods such as the Immaculate Conception on 8th December 2025 and New Year allows to find similarities and differences between airlines strategies. Therefore, it is interesting to later analyse the same routes operated by the companies during Easter and Labour Day.

Ryanair's clearly adopts a more aggressive peak monetisation strategy, characterised by very low fares outside peak periods and a strong price increment on holiday dates. EasyJet's Malpensa–Tenerife route, still leisure-oriented, shows a more moderated pricing curve, with higher base fares but less extreme peak levels.

In both cases, specifically in periods of Immaculate Conception and New year, the peak-date curves diverge from non-peak dates already from the first collection of data 70 days before departure, confirming that holiday demand is anticipated well in advance by airlines and that late bookings during peak periods are heavily penalised.

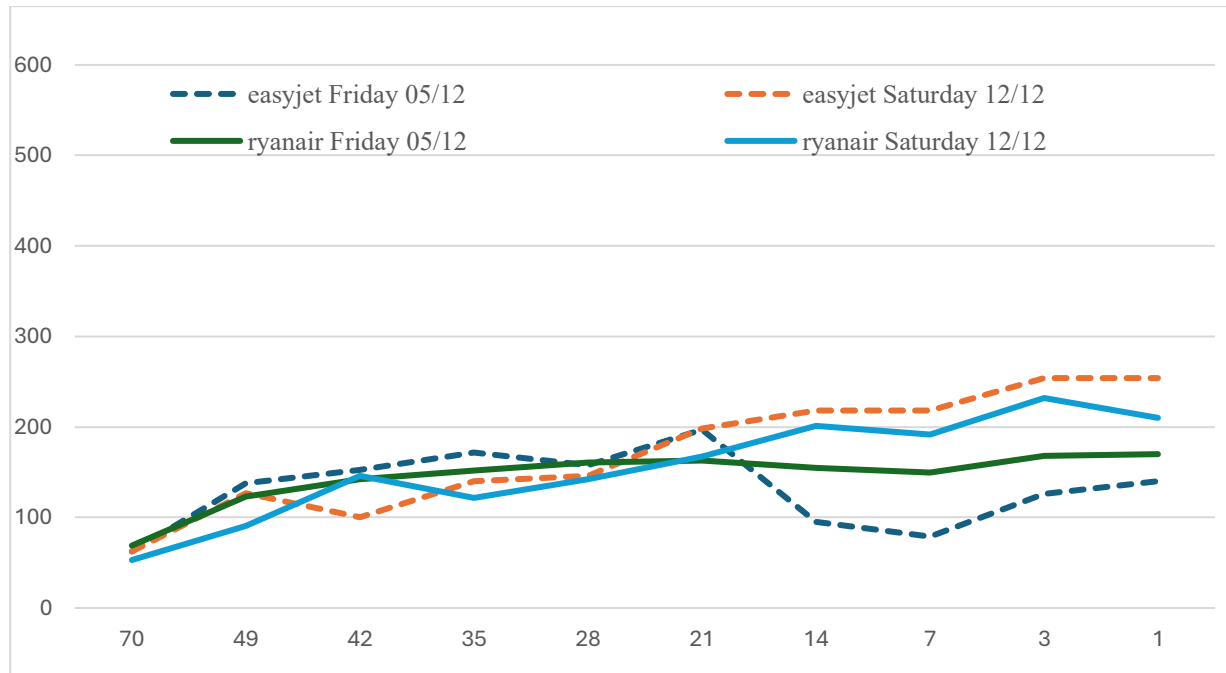
Overall, the comparison highlights how two leisure routes serving the same destination can exhibit distinct pricing dynamics, depending on some aspects.

First of all, Milan Malpensa is the main airport of Milan and is easily reachable, especially for travellers coming from North-West Italy or Switzerland, hence this airport is often preferred because it offers more destinations and connecting flights. Bergamo, on the other hand, although it is expanding, is still a smaller airport.

Considering the dimensions of airports is not enough because there are other factors that influence the difference in prices such as airlines strategies. Ryanair operates in Bergamo with a low-cost strategy: it focuses on carrying as many passengers as possible even if it means offering lower base fares compared to easyJet that works in the biggest airport of Milan and can afford to rise prices even with the risk of leaving some unsold seats, in conclusion Ryanair maximises price dispersion on peak dates, while easyJet balances early monetisation with greater fare stability outside holiday-driven demand peaks.

Figure 4.10: comparison between Ryanair and easyJet in Milan-Tenerife route.

In graph, peak departures for 8th December period. Dashed lines represent easyJet, solid lines for Ryanair.



The figure 4.10 shows price trends for both airlines during the peak days of the period of Immaculate Conception for the Milan–Tenerife route.

Overall, all prices increase as the departure date approaches. They start from values around €60 reaching €160–270. Prices increase in different ways, Ryanair shows a more gradual and stable increase, while easyJet displays stronger fluctuations, with sharper changes close to departure especially on Friday.

While early December period experiences little fluctuations and it is mainly characterised by stability, New Year shows an important growth in prices especially during weeks immediately before departure.

The below figure 4.11 refers to the New Year period, focusing on flights for Tuesday 30th and Wednesday 31st December 2025.

In this case, prices are much higher and reach values of €488. Both airlines show a clear upward trend, especially in the last two weeks before departure, with strong increments in the final days due to very high travel demand. Comparing the two periods, price increases are more limited and less regular around December 8th, reflecting a shorter and less intense travel peak. During New Year, instead, fares rise much more sharply for both airlines, confirming that this period generates stronger demand, particularly on leisure routes such as Tenerife. This consideration can also be explained by the presence of Christmas holiday that are longer than days around 8th December.

Figure 4.11: comparison between Ryanair and easyJet in Milan-Tenerife route.

In graph, peak departures for New Year period. Dash lines represent easyJet, solid line for Ryanair.

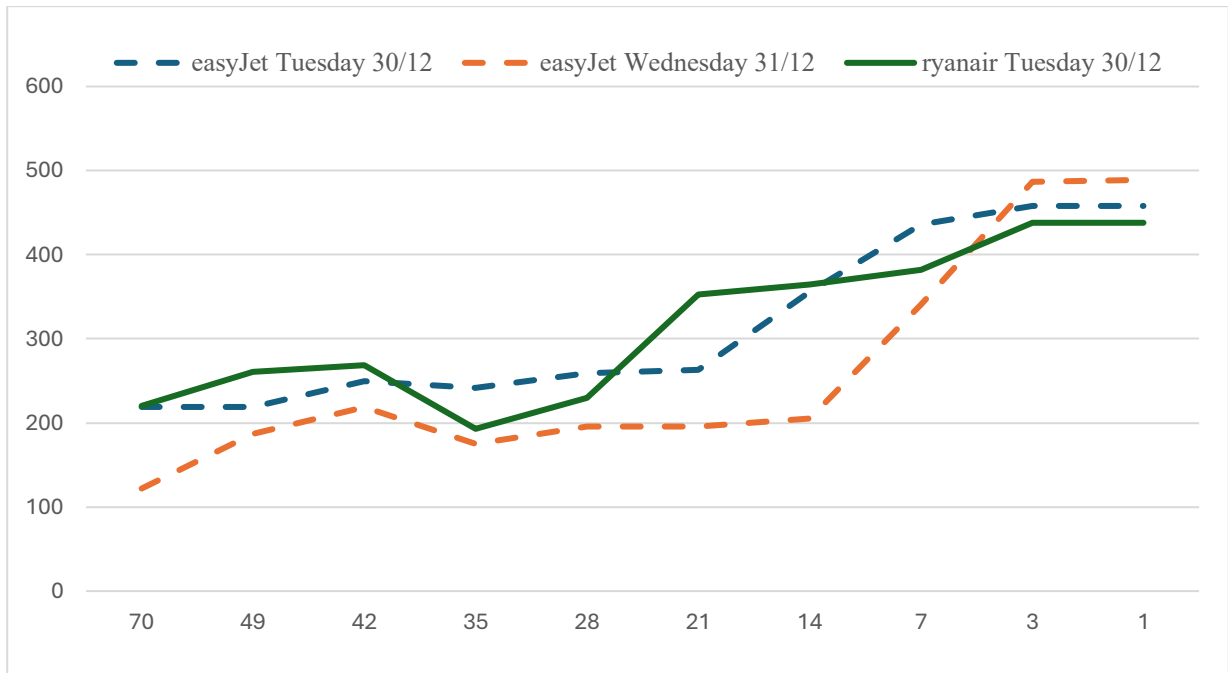
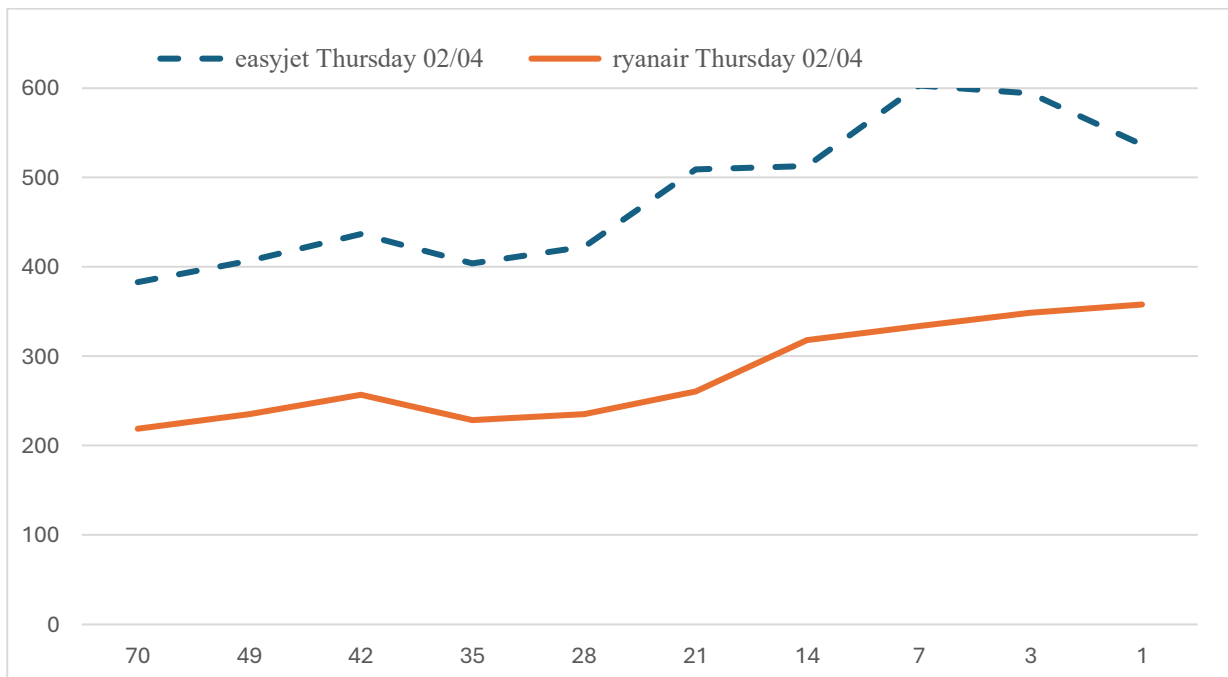


Figure 4.12: comparison between Ryanair and easyJet in Milan-Tenerife route.

In graph, peak departures for Easter period. Dash lines represent easyJet, solid line for Ryanair.

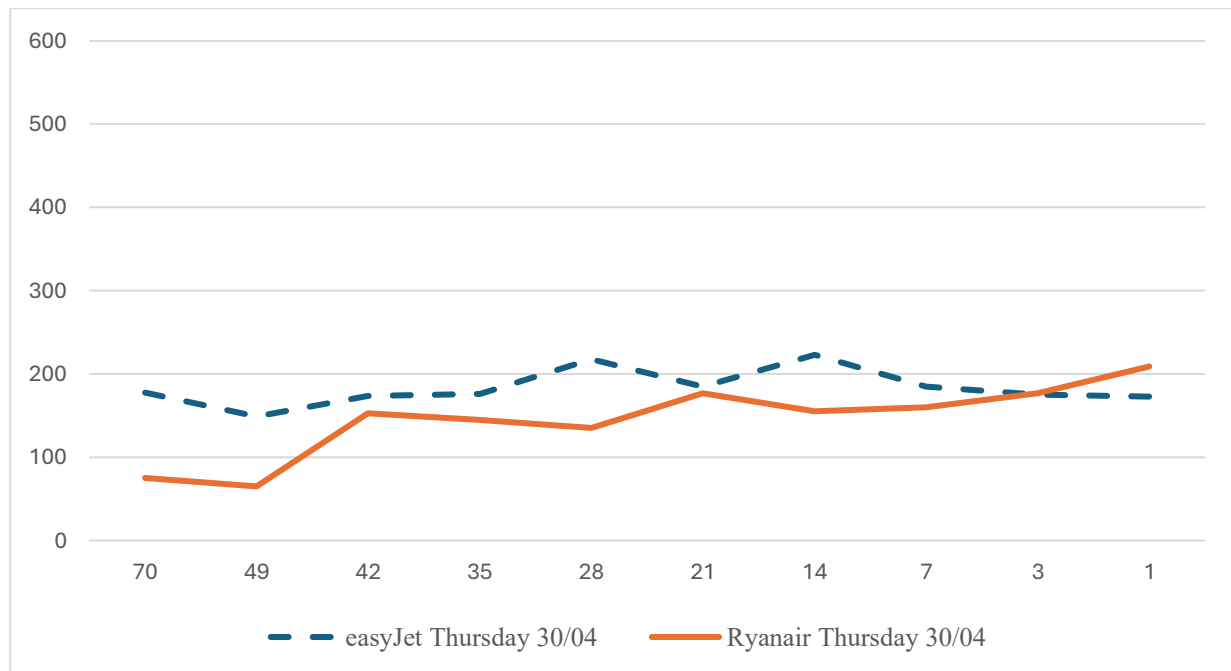


The figure 4.12 illustrates the price evolution for the Easter departure on Thursday 2nd April 2026. EasyJet maintains a dominant price position, starting at €382 and peaking at €602 one week before departure. Ryanair follows a similar trend but with lower prices, with fares ranging from €218 to a maximum of €357.

The gap between the two airlines remains evident throughout the period, with easyJet fares staying approximately €150–250 higher than Ryanair's. This gap confirms that also for the Easter outbound peak, the choice of airline and airport may significantly generate impacts on the final cost of the ticket.

Figure 4.13: comparison between Ryanair and easyJet in Milan-Tenerife route.

In graph, peak departures for Labour Day period. Dash lines represent easyJet, solid line for Ryanair.



The figure 4.13 illustrates the price evolution for the Labour Day outbound peak on Thursday 30th April 2026 for the Milan–Tenerife route.

EasyJet's fares show a relatively stable but fluctuating trend throughout the booking period, starting at approximately €180 seventy days before departure and maintaining a range between €150 and €210. Ryanair, represented by the solid line, starts at a much lower value of €78 and exhibits a more aggressive upward trend as the departure date approaches, particularly in the final three weeks, where it goes from €130 to a peak of €190 just one day before the flight.

The price gap between the two airlines is most significant early in the booking window, with easyJet costing over €100 more than Ryanair. This margin gradually diminishes until the prices nearly converge in the final days before departure.

Comparing the two business routes is more complex because they serve different destinations: one operates to London Gatwick, while the other flies to Manchester. This difference makes a direct comparison less straightforward, as demand patterns and market characteristics may vary between the two routes. However, from the data collected in all periods it is notable that the route Milan Linate–London Gatwick demonstrates a premium pricing structure, with high fares and limited dispersion between peak and non-peak dates. Malpensa–Manchester by Ryanair has lower base fares and does not increment extremely during peak days, remarking the company strategy.

Overall, the comparison confirms that business routes rely on fare stability, rather than aggressive peak monetisation.

In effect, the analysis of the routes shows that flight prices do not always follow the simple idea that holiday periods lead to higher price. On the contrary, the timing of price peaks seems to largely depend on the type of route and the mix of passengers.

To the Malpensa–Manchester route, both during Easter 2026 and the 8th of December holiday period, a similar pattern emerges. For Easter, the flight departing on Thursday 2nd April 2026 is characterized by relatively low and stable prices throughout the booking period, in contrast, the following week, with departure on Thursday 9th April, shows a much stronger increase in prices, reaching significantly higher levels.

A similar situation appears during the Immaculate Conception holiday period, where flights around 29th November are more expensive than on 5th and 6th December (the actual period of holiday). In both cases, the highest prices do not match the holiday itself but instead appear either before or after it.

Another example can be seen on the Linate–London route during Easter period. Here, prices during the Easter week remain stable, while the week after the holiday shows a clear and strong increase. This result suggests that on routes with a stronger business component, the holiday peak effect may change and that during actual holidays, business travel demand tends to decrease, reducing the share of passengers that usually generate higher and more stable fares on these routes. As a result, higher prices may appear after the holiday period, when business demand returns.

This empirical analysis allows to understand and demonstrate that easyJet and Ryanair apply differentiated pricing strategies depending on the type of travel and period.

On leisure routes, pricing is strongly driven by the travel calendar. Airlines set relatively low and stable fares during non-peak periods, while peak holiday dates diverge early in the booking window, reflecting an aggressive strategy aimed at monetising holiday demand. This pattern results in high price dispersion and a strong separation between peak and non-peak fares, followed by rapid price normalisation after the holiday period.

In contrast, on business-oriented routes, pricing strategies are more stable and less sensitive to holiday-related demand. Airlines maintain higher base fares throughout the booking window, with only limited and gradual price increases during peak days. Fare differences between peak and non-peak dates are smaller and tend to emerge closer to departure, reflecting a demand base driven by time sensitivity rather than seasonal concentration.

To conclude, both airlines adopt similar behavioural patterns characterised by strong price discrimination and early peak monetisation on leisure routes, and more stable pricing on business routes. These findings suggest that route type and demand structure play a central role in shaping dynamic pricing strategies in the low-cost airline sector. In addition, holiday periods influence fares in different ways depending on the type of route: since December 8th is a short national Italian holiday it leads to a limited increase in fares, instead New Year is a much more important travel period and affects prices more strongly, in fact they rise more significantly, especially on leisure flights to Tenerife.

It is also true that Tenerife is far from Italy, which suggests that it may not be worth travelling there just for an extended weekend as Immaculate Conception and Labour Day. This explanation helps to demonstrate why prices tend to be higher during the New Year period, when people have more days available for holidays and are therefore more willing to take longer trips.

4.4 Fare analysis per km

Analysing routes on a price-per-kilometre basis provides a clearer view of how airlines monetise distance depending on the underlying demand profile. When comparing leisure and business-oriented routes operated by the same carrier, clear structural differences emerge. This price-per-kilometre measure is calculated by dividing the ticket price for New Year period by the route distance in km. The same calculation will be applied for Easter.

In general, leisure routes generate lower revenue per kilometre than business-oriented routes and this analysis is a clear example of it. On both Tenerife routes, the price per km increases significantly at New Year compared to off-peak periods, reaching €0.08–0.09 per km on Tuesday 30th December 2025, but it remains below the levels observed on shorter business routes. The difference between flying on Tuesday 30th and Wednesday 31st December 2025 is clearly visible in unit pricing. For both easyJet and Ryanair, flying on Tuesday 30th December 2025 consistently commands a higher € / km, reflecting stronger willingness to pay for travelling before New Year's Eve. On the following day, price per kilometre drops by around 15–20%, confirming a behavioural preference rather than a capacity-driven effect.

For easyJet, the leisure route from Milan Malpensa to Tenerife has an approximate distance of 2,930 km.¹ During peak holiday period of New Year, average outbound fares range between €215–450 resulting in a price per kilometre of € 0.07–0.16 per km. In contrast, the values in cent calculated for the following week with departure on Tuesday 6th January 2026 remain lower, precisely between €0.02–0.04. This difference highlights how demand influences the cost and the fact that cost is not always correlated to the distance between airports.

By contrast, the business-oriented Milan Linate–London Gatwick route covers a much shorter distance of approximately 950 km.² Fares remain consistently high throughout the booking period, typically between €105–120, even outside peak periods. During peak periods fares reach values over €230, reaching a significantly higher price per kilometre collocated around €0.19–0.32.

Generally, the difference between the week of New Year and the following one is strong, and the phenomenon is confirmed here, where in effect for the 6th of January 2026 price for km remains around €0.05 and 0.18 (against the 0.19–0.32 of the peak day).

The almost double cost for peak period in both routes confirms that business demand is less sensitive to distance-based pricing.

¹ Distance taken from <https://www.distance.to>

² Distance taken from <https://www.distance.to>

A similar pattern is observed for Ryanair. The Milan Bergamo–Tenerife leisure route, also around 2,930 km, during New Year reaches peak fares of approximately €165–175, corresponding to a price per kilometre of about €0.07–0.09 per km.

On the business route from Milan Malpensa to Manchester, with roughly 1,200 km³, Ryanair achieves average fares in the range of €85–100, producing a price per kilometre of approximately €0.07–0.08 per km.

Overall, the price-per-kilometre comparison reinforces the concept affirming that leisure routes generate lower revenue per unit of distance, even during peak periods, relying on volume and calendar-driven demand. Business routes, on the other hand, achieve higher prices per kilometre, supported by time-sensitive travel needs and reduced elasticity.

Long distances combined with high price sensitivity force airlines to keep unit pricing low and rely on volume and calendar-driven demand. Peaks related to Italian public holidays increase total fares for each flight, but do not fundamentally change the low price per kilometre typical of leisure travel. In contrast, business-oriented routes generate much higher revenue per kilometre. Travellers on these routes are less sensitive to distance and more focused on convenience, timing, and airport choice.

As a result, airlines can maintain higher base fares, limited discounting, which translates into a consistently higher price per kilometre.

The analysis of the price-per-kilometre for the Easter period confirms the structural differences between leisure and business-oriented routes already observed. The same calculation applied to the peak departure on Thursday 2nd April 2026 reveals how demand influences unit pricing across different distances and destinations.

For easyJet, the leisure route from Milan Malpensa to Tenerife with a distance of 2,930 km shows average outbound fares during the peak holiday period resulting in a price per kilometre of €0.13–0.20. A similar pattern is observed for Ryanair on the Milan Bergamo–Tenerife business route, which reaches peak fares corresponding to a price per kilometre of approximately €0.07–0.12.

By contrast, the business-oriented Milan Linate–London Gatwick route with a distance of 950 km generates much higher revenue per kilometre, collocated between €0.16. and 0.27 per km.

On the business route from Milan Malpensa to Manchester with a distance of 1200 km, Ryanair achieves a price per kilometre of €0.02–0.09.

³ Distance taken from <https://www.distance.to>

Analysing routes on a price-per-kilometre basis provides a clearer view of how airlines monetise distance depending on the underlying demand profile. When comparing leisure and business-oriented routes operated by the same airline, it is notable that leisure routes generate lower revenue per kilometre than business-oriented routes, even during peak periods. For instance, on the leisure route from Milan to Tenerife, the price per km remains significantly lower (reaching approximately €0.07–0.16 during peak New Year or Easter periods) compared to shorter business routes like Milan Linate–London Gatwick, which can reach between €0.19 and €0.32 per km. This result confirms that business demand is less sensitive to distance-based pricing and more focused on convenience and timing.

The trend reinforces the finding that business routes achieve higher unit prices supported by time-sensitive travel needs and reduced elasticity, whereas leisure routes maintain the lower price per kilometre typical of volume-driven demand.

Chapter 5 - Conclusions

5.1 Main results

This thesis aims to investigate the pricing dynamics and yield management strategies adopted by Europe's two leading low-cost airlines, easyJet and Ryanair, through an empirical methodology focused on monitoring fares for specific routes in the period between September 2025 and May 2026.

The analysis was structured to observe the behaviour of these airlines not only under standard market conditions but during peak demand periods associated with Italian holidays such as the Feast of the Immaculate Conception, New Year, Easter, and the Labour Day extended weekend. The main objective was to examine how prices increase when flight demand is at its highest and to observe how these airlines raise fares as planes reach full capacity, specifically when passengers are more likely to pay higher prices due to holiday periods.

The thesis offers interesting results through its focus on contemporary European routes and current market trends. By analysing recent data, the study provides a modern perspective on how low-cost airlines operate in today's highly competitive aviation market. This approach ensures that the findings reflect current pricing behaviours rather than outdated historical patterns.

The empirical results confirm that both airlines strictly apply the optimisation models described by Talluri and van Ryzin (2004)¹ by managing their seat inventory based on the probability of selling tickets at higher prices as the flight date approaches. A key finding of this research is the 'Holiday Effect', which highlights a contrast between leisure routes, such as Milan–Tenerife, and business-oriented ones. On leisure routes, holiday demand causes fare increments that fully validate Stavins' (1996)² theory of price discrimination, by confirming airlines aim to extract the maximum surplus from passengers at times when they are less sensitive to price and obliged to travel during specific days.

¹Kalyan T. Talluri and Garrett J. van Ryzin, "Revenue Management under a General Discrete Choice Model of Consumer Behaviour," *Management Science* 50, no. 1 (2004): 15–33.

²Joanna Stavins, *Price Discrimination in the Airline Market: The Effect of Market Concentration* (Boston: Federal Reserve Bank of Boston, 1996), 1–17.

On the other hand, prices on business routes do not change much during holiday periods. This result suggests that airlines know there will not be demand peaks caused by holidays on these routes, so they keep prices relatively stable, confirming the regularity of this kind of passengers and the less influence holiday periods have. The pricing behaviour is closely related to the dynamics of the booking window and the perishable nature of airline seats, as theorised by Weatherford and Bodily (1992)³. The data collected shows that while prices generally rise closer to departure to encourage early booking, during peak periods fares begin to diverge from standard levels already 70 days before the flight and this pattern suggests that airlines want to fill their cheapest fare classes early, to eliminate the risk of unsold seats, by confirming the idea according to which low-cost airlines aim to full the flight and maximise revenues.

Within this context, comparing the two airlines reveals differences in strategy. Ryanair stands out for a more aggressive approach to holiday pricing seen that it usually starts from very low base fares followed by significant increments; easyJet maintains a higher average price characterised by more moderate and stable growth curves.

A further key element is the clear asymmetry between outbound and inbound flights. The data and graphs show that return journeys are subject to much steeper price increments, particularly during the final days of a holiday period. This difference happens because passengers have significantly less flexibility when returning. While a traveller might be flexible on departure, they almost always need to return on a specific date in order to be at home to resume work or school (and this date falls on the last day of the holiday). For business travellers, this return pressure is less relevant, as their travel patterns are more consistent and less tied to specific holiday calendars.

The strength of these findings comes from the fact that this study is based on the regular and systematic monitoring of specific routes. By tracking these fares regularly, it was observable how the market reacted to external shocks. Interestingly, despite the significant geopolitical tensions and global uncertainty between March and May 2026, European airfares remained surprisingly stable. As affirmed before, this resilience can be linked to the airlines' effective fuel hedging strategies, which protected them from oil price spikes, and a domestic demand that remained steady despite the international situation. This result confirms that the European low-cost market has reached a level of maturity where it can face tensions without immediate and drastic impacts on ticket pricing.

³ Lawrence R. Weatherford and Samuel E. Bodily, "A Taxonomy and Research Overview of Perishable-Asset Revenue Management: Yield Management, Overbooking, and Pricing," *Operations Research* 40, no. 5 (1992): 831–844.

However, it is essential to acknowledge the limitations of the study. As the research focuses specifically on a selection of four routes over a strictly defined nine-month period, the findings offer a targeted focus on the market, rather than a universal rule applicable to all low-cost operations. While these routes were chosen for their strategic relevance, they may not fully represent the pricing dynamics used for other routes or by other airlines.

Furthermore, the timeframe of this study, even if it covers several major holidays does not account for long-term seasonal shifts or unforeseen shocks that could occur outside this window, because as remarked in the introduction chapter, the thesis exclusively focuses on periods well known in advance. Pricing algorithms are increasingly sophisticated and this is why further research could amply this perspective towards a different framework based on longer periods of analysis that keep in mind unpredictable events.

Despite these constraints, this work serves as a starting point for analysing the evolving yield management strategies of the contemporary low-cost aviation sector.

5.2 Managerial and public policy implications

The results of this analysis confirm that yield management is a strategic tool in the aviation industry. It allows airlines to optimise seat allocation and maximise revenue in a market defined by uncertain demand, high fixed costs, and intense competition. However, beyond the direct economic benefits, these strategies have broader implications for management and ethical relationship with consumers.

From a managerial perspective, the success of this strategy depends on complex organisational factors. As Kimes (1989)⁴ argues, revenue management should be seen as a multidimensional approach that combines demand forecasting, market segmentation and inventory control, rather than a simple pricing policy. For airlines like easyJet and Ryanair, implementing this strategy effectively means making significant investments in data analytics, technologies, and staff training. It also requires close collaboration between commercial, operational, and strategic departments.

In today's digital environment, the ability to process and interpret large volumes of consumers data based on actual market has turned revenue management into an effective strategic tool, offering a potential source of competitive advantage.

Alongside these managerial points, there are important public policy considerations. The work of Botimer (1996)⁵ provides a theoretical basis for understanding how yield management can actually improve the economic efficiency. In sectors with fixed capacity, such as aviation, price differentiation allows to sell tickets at different fares, confirming the principle according to which price discrimination is not necessarily a market distortion but instead, it can improve efficiency and ensure profitability.

In conclusion, the primary objective for policymakers is to find a balance between airline economic results and the protection of passenger welfare, ensuring that pricing strategies remain both transparent and fair.

Finally, a crucial level of analysis concerns the ethical dimension of yield management. While economically efficient, price discrimination can generate perceptions of injustice among consumers, especially when fares for the same flights may be consistently different.

⁴ Kimes, Sheryl E. 1989. "Yield Management: A Tool for Capacity-Constrained Service Firms." *Journal of Operations Management* 8 (4): 348–363.

⁵ Botimer, Thomas C. 1996. "Optimal Fare Structures and Load Factors for Service Businesses with Stochastic Demand." *Transportation Research Part A* 30 (4): 307–317.

Literature on consumer behaviour highlights that prices influence satisfaction and brand loyalty. In the aviation sector, where price variations can be particularly high and volatile, managing the perception of equity becomes a critical component of corporate strategy. Airlines must balance the goal of revenue maximisation with the need to maintain long-term relationships with consumers, avoiding practices perceived as opportunistic or negatively discriminatory.

Some examples to ameliorate this perception may be the adoption of a real transparency through demand alerts that notify customers when they are viewing a peak-demand fare by explaining that a price is high due to limited seat availability, airlines can justify the cost and reduce the feeling of exploitation. Furthermore, offering the possibility of lock fares would allow passengers to freeze a price for a short period for a small fee, which restores a sense of agency and protects them from sudden increments during their decision-making window. In this way, passengers would be able to block the price for a short period and confirm the reservation without increments of price.

In conclusion, this thesis provides a comprehensive study of the industry's pricing policies and a detailed examination of real-world flight routes. This dual approach has allowed to reach the specific results and conclusions illustrated throughout this work. By bridging the gap between theoretical yield management models and the practical realities of the aviation sector, this research offers a solid foundation for future studies to further examine the continued evolution and shifting dynamics of the global aviation market.

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