

Air Passenger Rights at the Crossroads: Economic Impact of the Proposed EC261 Reform

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Executive Summary

Regulation (EC) no. 261/2004 ("EC 261") is a landmark in European consumer protection, granting passengers rights to care and compensation for significant flight disruptions. The regulation is now at a critical juncture, with competing reform proposals from the Council of the European Union and the European Parliament. This report provides a comprehensive economic analysis of these proposals and the impact of the existing framework.

Key findings from our economic analysis include:

1. **Compensation Serves as an Efficient Insurance Mechanism:** The regulation's compensation framework acts as a crucial insurance mechanism. Passengers are generally risk-averse and prefer to avoid the significant, unexpected financial shock of a flight disruption. Airlines, however, are effectively risk-neutral, as they can absorb these costs as a predictable business expense pooled across millions of customers. A fundamental economic principle, the Borch rule, states that efficiency is maximized when the risk-neutral party (the airline) insures the risk-averse party (the passenger). This makes compensation a preferred mechanism over, for example, simple fines on airlines.
2. **EC 261 Substantially Reduces Delays:** Peer-reviewed research highlighted in the report shows that EC 261 has significantly decreased flight delays, especially on less competitive routes. The report also shows that the likelihood of a delay of three hours or more on intra-EU flights is over 70% lower compared to domestic US flights, where no regulation like EC 261 applies.
3. **Delay Mitigation is Low-Cost for Airlines:** The report shows that this delay reduction is achieved at a low cost by airlines. The regulation gives airlines a choice: invest in mitigation or pay compensation. The data shows they overwhelmingly choose mitigation, achieving a two-thirds reduction in long delays (over 3 hours) on short-haul flights compared to non-EU airlines. This outcome reveals their preference: they invest in mitigation because its cost is lower than the expected compensation. Our analysis quantifies this cost ceiling, showing that this significant improvement in reliability is achieved at a cost of at most €1.73 per passenger.
4. **EC 261 Does Not Lead to More Cancellations:** The report scrutinizes the claim that EC 261 incentivizes airlines to cancel flights to avoid compensation for long delays. It finds the analysis supporting this claim is flawed, driven by operational

cost assumptions outside of EC 261 and based on inconsistent premises (e.g., assuming airlines can easily re-accommodate passengers even when flights are 90% full). Furthermore, that analysis omits significant costs—such as lost revenue and crew repositioning—that make cancellation a less appealing option for the airline. The report points to empirical evidence showing that same-day cancellation rates are actually lower in the EU than in the US, which lacks such a regulation.

Conclusion

The existing EC 261 framework has successfully improved on-time performance and passenger protection at a remarkably low per-passenger cost. Weakening its core compensation provisions would erode these benefits.

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1. Introduction

Regulation (EC) no. 261/2004 (“EC 261”), establishing air passenger rights in the European Union, is a landmark in consumer protection. It has significantly improved outcomes for passengers facing travel disruptions such as cancellations and long delays by mandating care and financial compensation. The regulation has successfully encouraged airlines to improve their on-time performance (Gnutzmann and Śpiewanowski 2023) and has served as a model for passenger-rights regimes in other jurisdictions (European Court of Auditors 2017).

Today, however, EC 261 stands at a crossroads. The European Commission (“the Commission”), the Council of the European Union (“Council”), and the European Parliament (“the Parliament”) have each put forward reform proposals that differ in scope and emphasis, notably with respect to compensation thresholds, the range of passenger entitlements, and the treatment of extraordinary circumstances.

A core pillar of the Council’s proposal is to restructure the compensation regime for delays. It increases the delay thresholds that trigger compensation—so that fewer flights and passengers are eligible—and lowers the average level of compensation payments. The stated aim is to create a more “balanced” system that limits costs for airlines while ensuring that passengers can reach their destination as quickly as possible. The proposal also broadens the list of “extraordinary circumstances,” further narrowing the situations in which passengers are entitled to compensation.

The European Parliament’s negotiating position, as adopted by the Committee on Transport and Tourism, would maintain the current compensation regime, including the three-hour delay threshold; establish a closed list of extraordinary circumstances in line with recent ECJ case law; and introduce a right to carry two items free of charge (one personal item and one small piece of hand luggage).

This report contributes to the debate by providing a comprehensive economic perspective on air-passenger rights and their reform. It explains the economic rationale for passenger protections—especially compensation for long delays—examines how these rights affect incentives and service quality, and assesses the policy arguments advanced in support of the Council’s proposed amendments.

The remainder of this report is organised as follows. Section 2 reviews the evolution of EU passenger-rights legislation and summarises the 2025 general approach adopted by the Council and the negotiating position of the Parliament. Section 3 sets out the economic rationale for passenger compensation and related rights, examining their insurance

function, effects on incentives and service quality, passenger preferences, and cost and competitiveness implications. Section 4 documents the positive impact of EC261 on delay reduction, while finding no evidence of increased cancellations or reduced connectivity. Section 5 concludes with implications for the forthcoming trilogue negotiations and outlines principles for an effective and economically sound framework of passenger protection.

2. Evolution of Passenger Rights and the Current Reform Debate

The European Union's framework for passenger rights originated from the broader goal of ensuring a high level of consumer protection in the internal market. Following deregulation of air transport in the 1990s, passengers faced greater choice but also increased exposure to cancellations, overbooking, and delays. To restore balance between liberalised airline competition and consumer protection, the Union adopted EC 261, replacing earlier legislation from 1991 that had addressed only denied boarding on scheduled flights.

The 2004 regulation introduced a unified set of rights for all air passengers departing from EU airports, and for passengers travelling into the EU on Union carriers. It granted three core entitlements in cases of denied boarding, cancellation, or long delay:

1. Right to care. When a disruption occurs, the operating air carrier shall provide meals and refreshments, access to communication, and—where necessary—hotel accommodation and transport between the airport and the hotel.¹
2. Right to reimbursement or re-routing. Following a cancellation, denied boarding, or a delay of 5 hours or more, passengers are entitled to choose between (i) reimbursement (with a return flight to the first point of departure, where relevant) or (ii) re-routing to the final destination at the earliest opportunity—or at a later date at the passenger's convenience, subject to seat availability.
3. Right to compensation. Passengers are entitled to fixed compensation when arrival delay is at least 3 hours or when a flight is cancelled without sufficient notice, unless the carrier proves extraordinary circumstances. Amounts are €250 (flights ≤ 1,500

¹ The obligation to provide care becomes due once the waiting time reaches 2 hours (flights ≤ 1,500 km), 3 hours (intra-EU flights > 1,500 km and other flights 1,500–3,500 km), or 4 hours (all other flights > 3,500 km). These duties apply even where compensation is not payable owing to extraordinary circumstances.

km), €400 (intra-EU flights > 1,500 km and other flights 1,500–3,500 km), and €600 (all other flights > 3,500 km).²

These rights are enforceable against the *operating air carrier* and apply unless the carrier proves that the disruption was caused by extraordinary circumstances that could not have been avoided even if all reasonable measures had been taken.³

Over the subsequent two decades, EC 261 has become the cornerstone of the EU's passenger-rights regime. It has also inspired analogous frameworks in other jurisdictions, including the United Kingdom (UK-retained “UK261”); EEA partners and Switzerland; Canada; Israel; Türkiye; Brazil; and India. Nonetheless, differences in interpretation, enforcement gaps, and persistent disputes over what constitutes “extraordinary circumstances” have repeatedly prompted calls for revision.

2.1 Council Reform Proposal

In 2013 already, the European Commission sought to revise Regulation (EC) no. 261/2004 to address recurring disputes over extraordinary circumstances and to refine the rules on compensation, care, and missed connections. The proposal introduced differentiated delay thresholds—five, nine, and twelve hours, depending on flight distance—while retaining the compensation levels of €250, €400, and €600. The proposal did not obtain Council agreement, and the reform was never adopted.

More than a decade later, the Council reached political agreement in June 2025 on a new text that again focuses on the calibration of delay thresholds and compensation levels (Council of the European Union 2025). In the accompanying recitals, the Council explains its approach through several stated objectives. Firstly, it argues that passengers primarily value reaching their destination quickly, and that the Regulation should therefore emphasise assistance and rerouting rather than monetary compensation. Secondly, it expresses concern that the current rules may encourage airlines to cancel flights instead of operating them with a long delay, creating inefficiencies for both carriers and passengers.

² Where a passenger accepts re-routing, the compensation is reduced by 50% if the final arrival delay does not exceed 2 / 3 / 4 hours for those three distance bands, respectively.

³ Case law of the Court of Justice of the European Union (CJEU)—notably *Wallentin-Hermann* (C-549/07) and *Sturgeon* (Joined Cases C-402/07 and C-432/07)—clarified and broadened the scope of these rights, confirming that long delays may give rise to compensation equivalent to cancellations and narrowing the definition of extraordinary circumstances.

Thirdly, the text invokes the need to preserve connectivity, particularly on low-density routes, by limiting financial exposure in extended disruptions. Finally, it refers to broader competitiveness issues, noting the asymmetry between EU and non-EU carriers but without proposing a structural remedy, instead calling on the Commission to re-assess the topic within three years (Recital 33a).

Sections 3 and 4 will thoroughly examine the claims against established theory and the best available evidence. The report concludes that claims regarding passenger preferences and lost connectivity were based on insufficient data and were disproven upon the inclusion of more comprehensive information. Furthermore, the argument for strategic cancellations relies on flawed and inconsistent modeling assumptions.

The 2025 Council text implements these stated objectives through a revised compensation framework. It raises the delay-at-arrival thresholds that trigger compensation to four hours for intra-EU and other flights up to 3,500 km, and to six hours for flights exceeding 3,500 km, while setting the corresponding compensation at €300 and €500. Compared with the existing three-hour rule, these changes would substantially reduce the share of passengers eligible for compensation.

Beyond the compensation framework, the Council text introduces a number of additional amendments. These include a new right to reimbursement for self-rerouting costs: when an airline fails to offer rerouting within three hours of the scheduled departure, passengers may arrange alternative transport independently and claim reimbursement of necessary expenses, capped at four times the original ticket price. Other changes concern new definitions of personal item and hand baggage, strengthened provisions for passengers with specific needs, and rules on airport contingency planning in cases of large-scale disruption.

2.2 Parliament Negotiation Position

In response to the Council's general approach adopted in June 2025, the Committee on Transport and Tourism (TRAN) adopted the Parliament's negotiation position. It firmly rejects the Council's proposal for longer compensation thresholds. Regardless of the distance, the right to compensation remains at the current three-hour threshold. Compensation would continue to be determined solely by flight distance. For flights less than 1500km, the compensation would be increased to €300 (from €250), for flights between 1500-3500km and above 3500km, the amounts would be unchanged at €400 and €600 respectively. An innovation is that the compensation would be increased in line with inflation every three years.

Regarding baggage, the Parliament introduces a significant new passenger right that directly addresses ancillary fees. The proposed text would oblige air carriers to allow passengers to carry "a reasonable amount of hand baggage" free of charge, in addition to one smaller "personal item." This amendment is aimed at standardising cabin baggage allowances and preventing airlines from levying price supplements on hand baggage that meets reasonable size and weight requirements, which the Parliament defines as a necessary aspect of travel.

Finally, the Parliament introduces several other new consumer protections. It significantly strengthens rights for Passengers with Reduced Mobility (PRMs), including a new right to claim full compensation for lost or damaged mobility equipment and the right to an immediate temporary replacement. Furthermore, the Parliament seeks to regulate airline practices by banning "no-show" clauses (where a return ticket is cancelled if the outbound flight is missed) and mandating that "reasonable corrections of spelling mistakes" on bookings be provided free of charge. The position also strengthens enforcement by making participation in out-of-court dispute resolution mandatory and binding for all airlines.

3. Compensation: Central to Passenger Rights

Effective compensation of passengers has been a cornerstone of the international passenger rights regime since the Warsaw Convention in 1929. The fundamental principle is that airlines accept a presumption of liability for damages - initially for passenger death or injury - which lowers the transaction costs for consumers seeking compensation. In exchange, carriers receive a predictable, internationally-agreed-upon cap on their maximum liability. This structure provides airlines with the financial certainty to manage and insure against risk, while ensuring passengers have a clear path to compensation.

This section revisits the case for compensation from an economic perspective. Firstly, compensation has an insurance function which is valuable to risk-averse passengers and follows from economic theory. Secondly, it reviews evidence on passenger preferences and the relative importance they attach to their core rights under EC261. Thirdly, it reviews the cost of delay compensation and the potential impact on ticket prices.

3.1 Insurance Function of Compensation

From an economic standpoint, mandated compensation serves an important insurance function. When a flight is seriously delayed or cancelled, the passenger faces unexpected outlays for meals and accommodation, as well as the loss of time. For an individual, this can be a significant financial shock. In economic terms, passengers are risk-averse: they prefer a

small, certain payment—reflected in a slightly higher ticket price—to bearing the risk of a large, unexpected loss.

Airlines, by contrast, operate thousands of flights and serve millions of passengers. For a carrier, compensating a few hundred passengers on a disrupted flight is a predictable business expense that can be diversified across the network. The airline is effectively risk-neutral with respect to any single disruption; it occupies the position of an insurer, pooling risk across countless “policyholders” (passengers).

A foundational principle of insurance economics, the Borch rule, states that efficiency is maximised when the risk-neutral party (the airline) insures the risk-averse party (the passenger) (Mas-Collel et al., 1995, example 6.E.1). It follows that disruption risk should be transferred from individual passengers—who are poorly placed to absorb it—to airlines, which can do so at far lower economic cost.

Because airlines account for—and can influence—a large share of delays, they are not only well placed to insure passengers but also to reduce the underlying risk. This dual role means that airlines can both bear the financial risk of disruptions and influence their likelihood—something that pure insurance schemes cannot achieve. A wholly private solution would protect only buyers and leave airline incentives largely unchanged, whereas EC261 assigns liability to the party best able to control delays and prices disruption at source. Faced with delay-linked liability, carriers have a direct reason to prevent or shorten disruptions, and—as we show next—these efforts improve on-time performance not just on flights at the risk of long delay but across the network. In short, the same design that insures passengers also makes delay costly for the party able to reduce it, so the cheapest response is prevention rather than payout. The next subsection presents empirical evidence consistent with this incentives channel.

3.2 Passenger Preferences and the Importance of Compensation

The discussion around passenger preferences and the importance of compensation in air travel has been a contentious one, particularly in the context of proposed reforms to EC 261. While some studies, like the Council's reform narrative drawing on Steer (2020), suggest that compensation is a lower priority for passengers compared to assistance and re-routing, direct passenger surveys paint a different picture. This view is echoed in the Council's 2025 general approach, which cites that study and states in recital (2a) that passengers' main priorities are assistance and rerouting, with compensation ranked third. This difference shows why it is important to look more closely at how passenger priorities are measured and what the results really mean.

In 2018, the European Court of Auditors (ECA) conducted an EU-wide survey to assess how passengers value their main rights under EC261. The survey covered ten Member States and asked respondents to select up to three rights they regarded as most important from the ten core passenger rights defined by the European Commission

The European Court of Auditors (ECA) conducted an EU-level survey in 2018, directly asking passengers in ten Member States to rank the importance of core passenger rights.⁴ Respondents were asked to “select from the following list the three rights you regard as most important [tick up to 3 boxes]”⁵ from the same list as assessed in Steer (2020). The results showed that rights central to EC 261 clustered at the top, with re-routing, compensation, and care being essentially co-leaders in passenger priority (41.7%, 39.6%, and 36.1% respectively), as illustrated in Figure 1.

These findings, based on a representative survey of passengers in ten Member States who were asked to rank the ten core passenger rights by importance, indicate that passengers see compensation as almost as important as rerouting and care. They also suggest that the three core EC261 rights form a coherent group of priorities for most travellers.

⁴ The European Commission identifies ten core passenger rights applicable across transport modes: the right to information; the right to assistance; the right to reimbursement and rerouting; the right to compensation; the right to care; the right to non-discrimination and assistance for persons with reduced mobility; the right to complaint handling and enforcement; the right to insurance and liability protection; the right to accessible transport; and the right to data protection and privacy. See: European Commission, Passenger Rights, available at https://transport.ec.europa.eu/transport-themes/passenger-rights_en

⁵ The ECA's statistical survey covered 10,350 respondents across the Czech Republic, Germany, Ireland, Greece, Spain, France, Italy, the Netherlands, Poland, and Finland between November 2017 and January 2018.

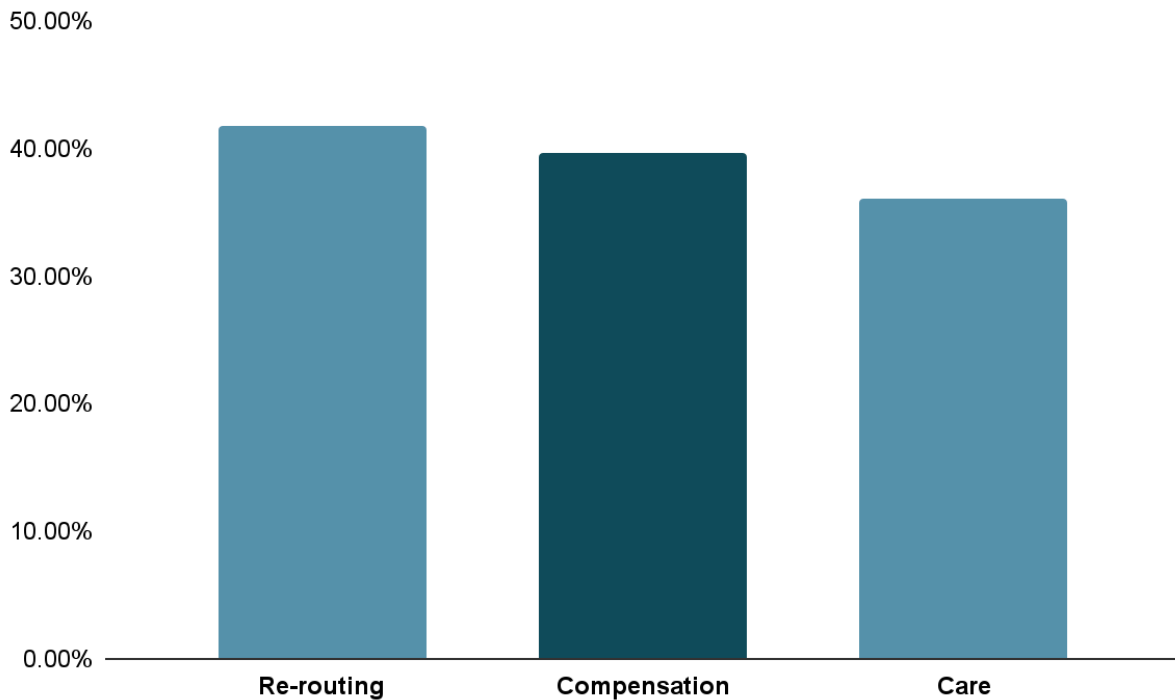


Figure 1: Passenger perceptions on the importance of individual passenger rights
 Source: European Court of Auditors (2018), Table 5

These findings contrast with the Council’s reform narrative, which, drawing on *Steer* (2020), presents a different view of passenger priorities. The *Steer* (2020) study ranks passenger priorities as (1) care and assistance, (2) rerouting to arrive as soon as possible, and (3) reimbursement and/or compensation. This sequence, cited in recital (2a) of the Council text, supports the argument that passengers mainly value assistance and rerouting, with compensation being of lesser importance. The same recital also refers to the rising costs of EC261 for airlines and possible effects on connectivity.

However, the Commission’s study, which the Council relies on, inferred passenger priorities from stakeholder engagement and desk research rather than from direct passenger surveys, and it did not specify a transparent method for ranking these rights. By directly soliciting the views of passengers across ten Member States, the ECA’s survey provides a more representative picture of how travellers assess their core rights. Its results show that passengers consider compensation almost as important as rerouting and care, challenging the assumption that it is a lower priority.

3.3 Direct Costs of Compensation

To analyze the costs of EC 261, this report uses Airhelp's "Core Flights" database, which aggregates data from multiple commercial vendors to provide the best available information on flight schedules and actual arrival times. The analysis covers the calendar years 2023 and 2024 and includes intra-EU flights, extra-EU flights, and domestic US flights as a comparison group.

Estimating the direct costs of compensation requires two key assumptions. Firstly, we assume that 25% of delays of three hours or more are due to "extraordinary circumstances" and are thus not eligible for compensation, a figure based on Eurocontrol data. Secondly, a crucial parameter is the claims rate—the percentage of passengers entitled to compensation who actually file a claim. As no definitive data on this rate is available, our analysis assumes a high claims rate of 75% to err on the side of caution, likely overestimating the true cost. For reference, a 2020 European Commission study assumed a lower claims rate of 58% for delays.

Based on this methodology, the average direct cost of compensation owed to passengers on intra-EU flights ranges from €0.53 to €1.61 per passenger, depending on flight distance, as outlined in Table 1.

Flight Category	Delay >= 1h (%)	Delay >= 2h (%)	Delay >= 3h (%)	Delay >= 4h (%)	EC261 Compensation (EUR)	Cost Per Pax (EUR)
0 - 1500km	4.95	1.21	0.4	0.18	250	0.53€
1500 - 3500km	5.8	1.51	0.54	0.25	400	1.13€
More 3500 km	5.11	1.37	0.51	0.31	600	1.61€

Table 1: Occurrence of Long Delay and Compensation for Intra-EU Flights

Source: Author’s calculations based on Airhelp “Core Flights” dataset for intra-EU flights 2023-2024; see text for detailed methodology

It is clear that the direct costs of delay compensation are small compared to the ticket price. In fact, these costs are lower than plausible sales and distribution costs for a third-party delay insurance. This highlights an import channel through which mandatory delay compensation can improve consumer welfare, by reducing transaction costs.

3.4 Costs of Delay Mitigation

Carriers from outside the EU flying into the EU are not subject to EC 261. While this arguably creates a cost distortion and an inequity between airlines, this unequal treatment can also be used to estimate the cost of delay mitigation. By comparing the rates of long delays (3 hours or more) on flights covered by EC 261 versus flights not covered on extra-EU routes, we can estimate the delay reduction attributable to the regulation.

We can then compare this reduction in delay to the costs saved for compensation. If a profit-maximizing airline chooses to reduce delays rather than pay compensation, this implies the cost of delay mitigation does not exceed the cost of compensation. This argument, known as "revealed preference" in microeconomics, helps us place a ceiling on the cost of delay mitigation. It leaves open the possibility that the cost of mitigating delays is actually less than the reduction in compensation cost. While markets may not be directly comparable in all aspects, the data in Table 2 illustrates this choice in action and represents the best available evidence.

As Table 2 shows, the probability of a long delay is consistently higher on flights not covered by EC 261. The gap is most extreme for short-haul flights. On routes under 1,500 km, the risk of a delay of three hours or more is 1.96% when the regulation does not apply, compared to just 0.64% when it does. This implies that the regulation is associated with a two-thirds reduction in the risk of long delays for these flights. This pattern continues to hold for all other flight categories, demonstrating the regulation's consistent effect on airline operations.

Flight Category	Applicable Regulation	Delay >= 1h (%)	Delay >= 2h (%)	Delay >= 3h (%)	Delay >= 4h (%)	EC261 Compensation (EUR)	Cost Per Pax (EUR)
0 - 1500km	EC261	6.66	1.73	0.64	0.32	250	0.84€
0 - 1500km	No regulation	9.71	3.87	1.96	1.14	250	2.57€
1500 - 3500km	EC261	8.06	2.21	0.83	0.43	400	1.74€
1500 - 3500km	No regulation	5.56	1.93	0.95	0.53	400	2.00€
More 3500 km	EC261	6.69	2.22	1.04	0.59	600	3.28€
More 3500 km	No regulation	6.2	2.41	1.17	0.59	600	3.69€

Table 2: Cost of (Hypothetical) EC261 Delay Compensation on Extra-EU Flights

Source: Author’s calculations based on Airhelp “Core Flights” dataset for intra-EU flights 2023-2024; see text for detailed methodology

Notes: For flights not covered by EC261, delay compensation is not payable; the cost per passenger is a hypothetical input to the revealed preference calculation.

This stark reduction in delays on EC 261-covered flights must be seen in the context of the compensation costs. A profit-maximizing airline makes a clear choice: invest in operational

reliability to prevent delays or pay the potential compensation. The fact that covered airlines achieve a two-thirds lower delay risk on short-haul routes reveals their preference. They choose to incur the costs of mitigation because those costs are presumably lower than the expected cost of compensation they would otherwise face of €1.73 (€2.57 per passenger for non-covered carriers vs. €0.84 for covered ones). This choice provides a ceiling on delay mitigation costs, suggesting they do not exceed the savings from compensation avoided, and may in fact be lower. In essence, the airlines' actions reveal that investing in reliability is cheaper for them than paying out compensation, validating the regulation's incentive structure.

3.5 Supporting Evidence from the US Market

A comparison with the US market, which currently lacks a federal compensation mandate for delays, further substantiates this conclusion. The probability of experiencing a delay of three hours or more on an intra-EU flight is over 70% lower than on a domestic US flight (0.43% vs. 1.48%). This suggests that robust passenger rights regulations like EC 261 directly incentivize airlines to maintain a higher standard of operational performance.

As table 3 shows, the probability of a same-day cancellation is considerably lower for intra-EU flights vis-a-vis intra-US flights, with a risk reduction of more than 20% (0.56% vs 0.72%).

Metric	Intra-EU	Intra-US
Same-Day Cancellation (%)	0.56	0.72
Delay >= 1h (%)	5.12	7.08
Delay >= 2h (%)	1.27	2.96
Delay >= 3h (%)	0.43	1.48
Delay >= 4h (%)	0.20	0.84

Table 3: Comparison of Same-Day Cancellations and Long Delays, Intra-EU vs Intra-US

Source: Author’s calculations based on Airhelp “Core Flights” dataset for intra-EU flights 2023-2024; see text for detailed methodology

3.6 Who pays? Competition and incidence

Ultimately, the costs associated with EC 261—both from direct compensation and from investments in delay prevention—are distributed between airlines (absorbed in margins)

and consumers (passed on through fares). However, it is crucial to recognize that these costs are not deadweight loss. They drive operational improvements and foster a more reliable and competitive air travel market, particularly on routes with lower passenger volume where service quality might otherwise lag behind. The regulation effectively transforms potential financial liability into a clear incentive for better service.

Incidence is driven by market conditions and it is not mechanical. In general, the more intense the competition on a route, the higher the pass-through of cost changes to prices. Where margins are already thin, airlines have less scope to absorb costs, so a larger share is borne by consumers; where rivalry is weaker or products are more nuanced, a larger share shows up in margins. The reverse holds for cost reductions from prevention: on competitive routes, more of the efficiency gain from improved reliability tends to reach passengers in lower effective prices; on thinner routes, more is retained as margin even as service improves. Theory also cautions that pass-through depends on the shapes of demand and cost (Weyl & Fabinger, 2013), so we should expect variation across markets rather than a single number. Consistent with this, non-price competition responds as well: Gnutzmann and Śpiewanowski find larger punctuality gains from EC 261 on less competitive routes—where market forces had not already induced high reliability—while effects are smaller on highly competitive city-pairs where airlines had improved quality even before the regulation (Gnutzmann and Śpiewanowski 2023).

To illustrate how differences in disruption costs translate into prices and margins, let us consider a simple pricing example. Two airlines on the same route with identical cost structures except for expected disruption costs: one runs a more reliable operation and therefore has a lower expected cost per passenger. In a setting with close—but not identical—services (for example, different departure times) and realistic capacity limits, the reliable airline can either price a little more keenly and win market share or maintain the going price and earn a higher margin. Either way, reliability pays: lower expected disruption costs translate into a competitive advantage, split between prices and margins depending on rivalry and capacity.

The low per-passenger expected cost of delay compensation, evidenced by the analysis above, precludes the possibility that delay compensation is a significant driver of ticket prices. In the scenario analysis of Steer (2020), the revenue per passenger was calibrated to approximately €150 per passenger for the short-haul scenario. Table 1 indicates an expected cost of approximately €0.53, which is not anticipated to have a notable impact on ticket prices. However, when passengers perceive EU and non-EU carriers to be close substitutes, they may significantly distort market shares on extra-EU routes where non-EU carriers are only partly covered by the regulation.

4. Passenger Rights: Impact on Airline Operations

This chapter analyses the operational effects of EC261 on airlines and the wider air transport system. It focuses on three main areas: delay reduction, cancellations, and connectivity. The discussion evaluates whether the incentives created by EC261 have improved or impaired operational efficiency and considers the Council's 2025 argument that the current framework may encourage cancellations and threaten route viability, especially in peripheral or weather-exposed regions

4.1 Reduction of Delay

As discussed in Section 3, EC261's delay-compensation scheme applies the cheapest-cost-avoider principle, under which liability rests with airlines—the parties best able to prevent delays at least cost (Calabresi 1970). Carriers, not passengers, control punctuality through schedule design, maintenance planning, crew and aircraft rotations, spare capacity, and disruption-recovery choices. By tying liability to arrival delay at destination, the regulation prices delay at its source and makes the efficient response—reducing delays—the profitable one. When prevention is cheaper than expected payouts, investment becomes the rational choice; when it is not, paying compensation is. The remainder of this section examines how these mechanisms operate in practice and what the data show about their effects on airline performance.

In day-to-day operations, this logic translates into a series of targeted reliability practices. Airlines take limited safeguards where they matter most—an extra crew at the morning peak so someone calling in sick does not disrupt the first wave; a standby aircraft positioned at the hub when disruption risk is high (for example, due to very poor weather conditions, air-traffic restrictions, or strikes); and key spare parts warehoused locally so that routine repairs take minutes rather than hours. Turnarounds are made faster and more predictable by fuelling earlier, organising baggage to avoid bottlenecks, and, when needed, adding a few extra minutes of ground time during peak periods. Because liability is linked to arrival times rather than intermediate metrics—such as gate departure or taxi-out time—opportunities for gaming are limited, and the most profitable response remains to prevent or shorten delays. These measures improve punctuality across the network, not just on the flight initially affected.

The empirical record is consistent with this mechanism. Gnutzmann and Śpiewanowski (Gnutzmann and Śpiewanowski 2023) exploit EC 261's partial extra-territorial scope to compare EU-carrier flights with non-EU-carrier flights operating on the same routes between non-EU countries and the EU at the same time, thereby netting out route-specific shocks. They find economically meaningful effects: mean arrival delay falls by about four

minutes, and the probability of arriving on time (≤ 15 minutes late) rises by roughly five percentage points. The improvements are largest where competition is weak, indicating that compensation is a substitute for the lack of market discipline.

Reducing delays per se is not enough to claim success. Punctuality must improve without airlines gaming the system by cancelling flights that might otherwise have run late. Poorly designed, cliff-edge rules in other sectors have pushed operators toward pre-emptive cancellations. EC 261 is structured differently. Because arrival delay triggers compensation—and cancellations also carry compensation, rerouting and care duties—cancelling rarely dominates delaying. With today's high load factors and limited spare seats, re-accommodating a full planeload is expensive and often infeasible without creating new disruptions elsewhere. Consistent with this design, peer-reviewed research, as far as we are aware, has not identified a systematic rise in cancellations under EC 261, while contrary claims are based mainly on ex-ante scenarios with questionable assumptions, not causal evidence (Steer 2020), as we discuss in more detail in section 4.2.

The remaining policy question is who pays for better reliability. Expected compensation and prevention costs are financed within the industry—partly through margins, partly through fares—while more reliable carriers face lower expected outlays and gain a competitive edge. In Section 3.3 we examine pricing and incidence in detail, and what this implies for competitiveness and connectivity.

4.2 Cancellations

While EC261 has been shown to improve punctuality, the Council argues that it may also create unintended incentives for airlines to cancel flights rather than operate them with long delays. This section examines that claim, focusing on the Council's reasoning and the evidence presented in the Commission's 2020 impact study (Steer, 2020). The Council suggests that, under certain conditions, it may be cheaper for an airline to cancel a flight than to operate it with a long delay and bear the associated costs. However, the study's own analytical example does not support this conclusion.

The Commission study sets up a short-haul rotation of four sectors in a single day, where the first sector is already delayed by at least three hours, creating potential knock-on delay for the remaining three. It then compares three cases shown in Figure 2 (a copy of Figure 4.13 from (Steer 2020): (1) operate all four flights, each arriving ≥ 3 hours late; (2) cancel two flights (one round trip) and re-route passengers with arrival > 2 hours late; and (3) the

same cancellation but re-routing delivers arrival ≤ 2 hours.⁶ From a passenger-welfare perspective, the third case is clearly preferable: if the airline can cancel the heavily disrupted flight yet re-route passengers so that they arrive at the final destination within two hours of schedule, most travellers would strictly prefer that outcome to arriving more than three hours late.

The study then totals flight-operation costs (only when flights still operate) together with passenger-related items—compensation, care and assistance, and reimbursement/re-routing—to produce the bar totals. In doing so, it assumes a 90% load factor; that about three-quarters of cancelled passengers are re-routed (the remainder reimbursed); that most re-routed passengers are placed on the airline’s own services (a small share on other carriers); and that around half of eligible passengers claim compensation.

In the worked example, cancelling two flights (and thus eliminating the knock-on delay on the remaining two) is shown to be cheaper than operating four flights with ≥ 3 -hour delays: the cancellation options total about €40k (if arrival ≤ 2 h) to €65k (if > 2 h), whereas operating with delay totals roughly €145k. The main cost drivers (see Figure 2) are the additional flight-operation costs (about €50k) and compensation (about €87k) in the “operate late” case. By contrast, the cancellation cases have zero flight-operation costs and only modest re-routing and care amounts, with compensation halved when re-routing arrives within two hours. Importantly, total compensation is also lower in both cancellation cases than in the delay case because fewer passengers are eligible: after two flights are cancelled, only the passengers from those cancelled sectors are compensated (subject to the assumed claim rate), whereas in the “operate late” scenario, passengers on all four flights exceed the three-hour threshold.

⁶ For cancelled flights, EC 261 provides distance-based compensation that is reduced by 50% when re-routing delivers arrival within two hours; if arrival is later than two hours, the full amount applies.

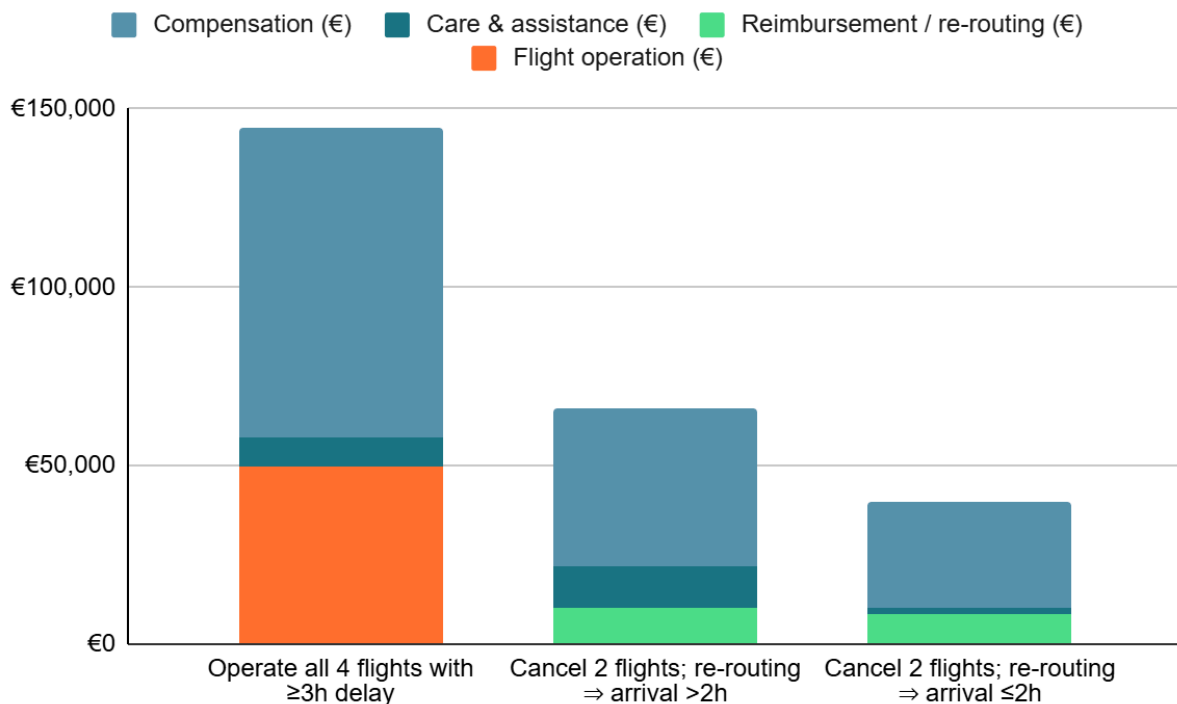


Figure 2: Costs incurred on short-haul routes arising from cancellation and delay in (Steer 2020).

Source: Steer (2020), Fig. 4.13.

There are at least three conceptual issues with the example and the conclusions drawn from it. Firstly, when the EC 261 components are stripped out—i.e., removing compensation and care from all three cases while holding re-routing at the study’s own amounts—the ranking is unchanged: cancellation remains the cheaper option. The “operate late” case continues to carry approximately €50k of additional flight-operation cost that does not arise under cancellation, whereas the cancellation cases substitute a much smaller re-routing outlay of roughly €9–12k. This indicates that the reported ordering is driven primarily by the non-EC 261 cost layer embedded in the set-up rather than by the Regulation itself; EC 261 payments raise the levels but do not alter the ordering.

A second issue concerns the internal consistency of the re-routing assumptions that drives the results in the example analysed. The scenario assumes load factors of about 90%—leaving only 10% of seats available on subsequent departures. At the same time, the analysis assumes that most passengers from two cancelled sectors can be re-routed on the carrier’s own services, in one variant within two hours. With such limited slack, that rate of

rapid re-accommodation would typically require substantial latent capacity or multiple lightly loaded departures on the same city-pair, conditions that appear inconsistent with the assumed 90% load factor on other flights..

Finally, the fact that airlines bear lower costs when passengers arrive at their destination earlier (within two hours) than when they arrive late shows that the regulation aligns the carrier's incentives with the passenger's interest in earliest feasible arrival when disruption is unavoidable. The fact that this case yields lower compensation in the figure reflects shorter realised delays, not a loophole.

Beyond these identification issues, the example omits several operational and economic elements that would tend to raise the cost of cancelling relative to operating late: crew duty-time limits and the need to find replacement crews, aircraft repositioning and maintenance knock-ons, and possible slot-use consequences at coordinated airports. The comparison is also cost-only: cancelling means losing the ticket and ancillary revenue from the sectors dropped, which would lower the net cost of operating the flight relative to the chart's "flight-operation" line. Finally, the set-up implicitly assumes a base with ample spare aircraft and crews; in real-world operations, carriers can often reduce knock-on delays by swapping aircraft or reassigning flights across the schedule—options the example does not consider. None of this implies cancellation is never optimal, our analysis does not exclude states in the world where cancellation is indeed optimal, for example with very low load factors with alternative routes available, but it does mean the ranking displayed rests on robust assumptions and does not establish a general incentive to cancel under EC 261.

Taken together, the Commission's example does not show that EC 261 creates a general incentive to cancel. The ranking arises from non-EC 261 cost assumptions and internally inconsistent re-accommodation premises. In short, the study's modelling choices, rather than the Regulation, create the semblance of a cancellation incentive. Indeed, the best empirical evidence available comparing same-day cancellations between domestic US and domestic EU flights, reviewed in section 3.5, shows that the rate of same-day cancellation in the EU is *lower* than in the US.

By contrast, several delay-reduction rules in other transport settings have induced strategic cancellations. The next subsection addresses those cases.

Strategic cancellations under other regulatory designs

There is no peer-reviewed evidence that EC 261 has led to strategic cancellations. It is still useful to place the issue in context. The literature identifies specific regulatory designs that can generate cancellation incentives in transport markets.

A first design is a punitive cliff-edge rule tied to a hard-and-fast time limit. The United States tarmac-delay rule requires carriers to allow deplaning before a fixed threshold is reached on the apron. For domestic services the threshold is 3 hours. For international services it is 4 hours. Breaches expose the carrier to large per-passenger fines, with limited exceptions for safety, security, or ATC instructions. Empirical work finds the rule increased pre-emptive cancellations for flights at risk of exceeding the threshold, especially during adverse weather and at congested hubs (Fukui and Nagata 2014). The mechanism is straightforward. When the only way to avoid a very large penalty is to cancel before the threshold, airlines cancel more.

A second design risk arises when performance management relies on narrow punctuality metrics. A strong focus on on-time performance can induce schedule padding, where planned block times are lengthened to improve reported OTP. This raises measured punctuality without improving actual travel time and can degrade service quality (Forbes et al., 2019). We are not aware of robust evidence that EC 261 produced systematic padding. The main peer-reviewed study on EC 261 reports improvements in actual arrival times rather than changes in scheduled times (Gnutzmann and Spiewanowski 2023).

Similar gaming is documented in rail. In the United Kingdom, operators have used “p-coding”: trains likely to be late are cancelled the evening before and removed from public timetables so they no longer count as cancellations in the recorded punctuality statistics (Pidd 2023). Because performance is calculated against the timetable as published the day before travel, taking a train out of that timetable improves the reported figures even though the original service does not run (Pidd 2023). In Germany, internal documents reported en-route cancellations to protect punctuality measures during disruption (Reiber 2025). In practice this included ending a service before its scheduled final station so that a late arrival would not be logged in the punctuality statistics (Reiber 2025).

These cases show that strategic cancellations are real but they tend to arise under rules with cliff-edge fines or easily gamed metrics. EC 261 is structured differently because it compensates passengers for arrival delay and attaches obligations to cancellations. This design is more robust to the forms of gaming described above.

4.3 Connectivity

One stated aim of the reform is to safeguard connectivity, especially in places where geography and weather make air links fragile. The Council argues that prolonged disruption can place a strain on airlines and, over time, risk reduced service in some areas. In addition, the Council links long-lasting extraordinary events and open-ended hotel obligations to risks for airlines' financial stability, which it argues could harm connectivity.⁷

Weather-related disruption does raise airline costs. When delays or cancellations are caused by extraordinary circumstances such as severe weather conditions, compensation is not due, carriers still incur care obligations for passengers and a range of operational costs related to staffing and aircraft maintenance. Flights serving weather-exposed regions can also create knock-on delays on subsequent legs, which may increase expected compensation when those later delays are within the carrier's control.

Flights serving weather-exposed regions can also trigger knock-on delays in the aircraft's later sectors. When those subsequent delays fall within the carrier's control, they increase expected EC261-related outlays on the later flights even though the original weather event carried no compensation duty.

These risks can be priced and embedded in fares. As shown in Section 3.3, the average per-passenger EC261 cost of €0.5 to €1.6 is small relative to the trip price.⁸ Even if exposure on weather-prone routes was several times higher than the average, that alone is unlikely to produce large or systematic reductions in connectivity.

Because EC261 is only one part of the cost of operating in difficult conditions, isolating its effect directly is hard. As a practical proxy, we examine whether airports with higher pre-departure delays due to air-traffic restrictions see different traffic growth than peers. By "pre-departure delay" we mean the extra minutes a flight must wait before it is allowed to depart because capacity is temporarily restricted (for example, by poor weather or flow-management limits). This captures adverse operating conditions reasonably well, though it also reflects non-weather factors such as congestion, staffing, airspace closures, or industrial action.

⁷ The proposal also suggests flights to Greenland should not be covered by compensation obligations, even when they form part of journeys that arrive in or depart from the EU.

⁸ Costs of compensation only, total costs are somehow higher.

For the figure, we use Eurocontrol airport-level data (2018-2024) to build a daily panel of traffic and total pre-departure delay minutes per airport for 334 airports. We compute each airport's 2018 baseline minutes per flight and place airports into three fixed groups: lowest 25% delay, middle 50%, and highest 25% delay.⁹

As shown in Figure 3, we do not find a consistent link between higher ATC-related delay before departure and weaker traffic growth. During the COVID dip, the low-delay group fell slightly less, but by the end of the sample the high-delay group is the only one back at or above 2018 levels; the other two remain about 10% below. This pattern does not appear to suggest a broad connectivity penalty at airports with persistently higher ATC constraints, nor does it support the view that EC261 costs on their own are a major driver of connectivity losses.

The evidence is descriptive rather than causal, so it cannot rule out effects on particular routes or regions. It shows only that, in aggregate, airports with more frequent pre-departure constraints did not grow systematically more slowly over 2018–2024. Differences in tourism or local demand may also explain the pattern. Strong claims of a general connectivity risk attributable to EC261 therefore go beyond what these data can support.

⁹ Holding those groups constant, we track traffic by group using an index with 2018 = 100, weighting airports by their 2018 traffic so larger airports count proportionally. The sample covers all Eurocontrol-reporting airports with valid delay and traffic data in 2018 (334 airports). We plot group averages with simple 95% confidence bands.

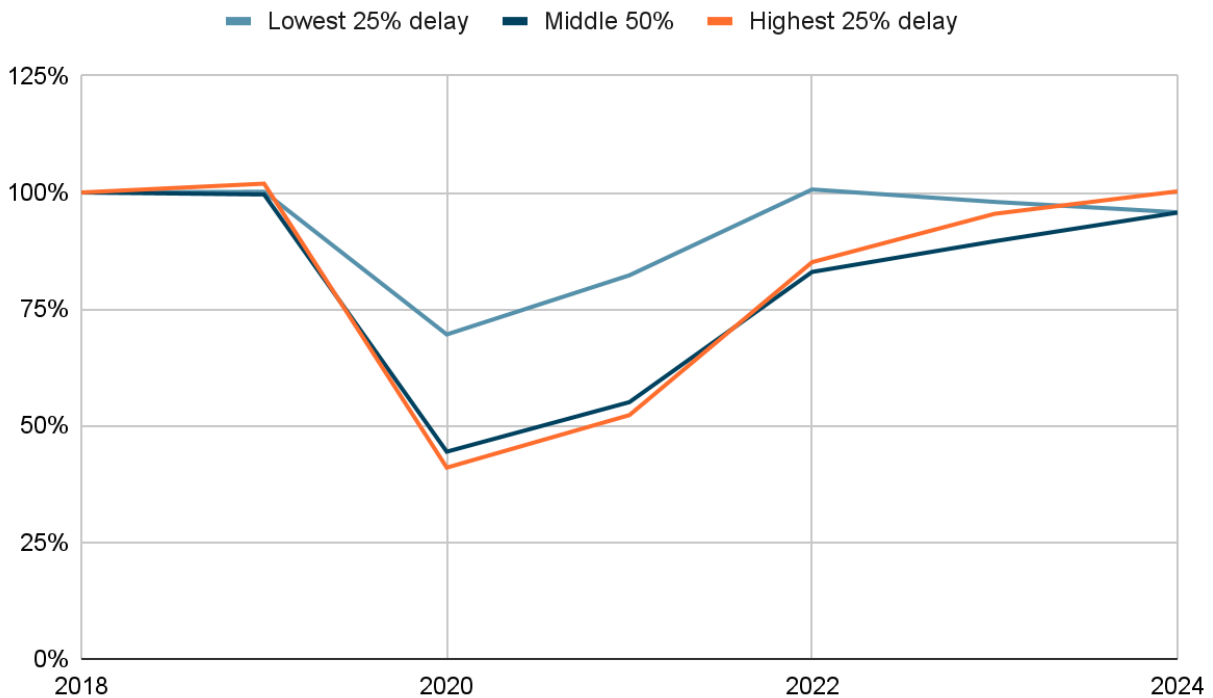


Figure 3: Traffic growth by delay tier.

Source: Own calculations based on Eurocontrol

5. Conclusion

The evidence reviewed in this report demonstrates that Regulation (EC) no. 261/2004 has delivered clear and measurable benefits to passengers and the air transport system. It shifts risk from individual passengers, who are risk-averse and poorly diversified, to airlines, which can manage and price it efficiently. The compensation system therefore acts as both insurance and incentive: it protects passengers ex post while motivating airlines to invest in delay prevention ex ante. This dual role is consistent with economic efficiency principles: disruption risk is transferred to the party best able to absorb and mitigate it.

This dual function is not only theoretically sound but empirically validated. Gnutzmann and Śpiewanowski (2023) find that EC261 has measurably improved operational performance: flights covered by the regulation are about 5% more likely to arrive on time, and average arrival delays are four minutes shorter, with the strongest gains on routes where competition is limited and market discipline weakest. These improvements have been

achieved without evidence of cost inflation or higher cancellation rates, confirming that the marginal cost of delay mitigation is low. The average direct cost of compensation—between €0.5 and €1.6 per passenger, depending on distance—is a modest and predictable outlay that delivers both greater consumer protection and demonstrably higher service quality.

The Council's 2025 reform proposal would substantially weaken these incentives. By raising compensation thresholds to four and six hours, the proposal would narrow the coverage of the regime precisely where it is most effective. It would transfer value from consumers to airlines without evidence of offsetting efficiency gains, and risk eroding the improvements in punctuality that EC261 has achieved. The Council's underlying assumptions—that passengers primarily value rerouting, that compensation encourages cancellations, and that connectivity is threatened—are not supported by the data. In each case, theory and evidence point the other way: passengers value compensation nearly as much as rerouting; EC261 has not led to strategic cancellations; and connectivity has been maintained even at delay-prone airports.

An economically consistent reform should preserve the incentive and insurance functions of EC261 while improving clarity and enforcement. A closed list of extraordinary circumstances, aligned with established Court of Justice jurisprudence, could reduce litigation and strengthen legal certainty. Provisions such as the Parliament's proposal to index compensation to inflation would maintain the real value of passenger rights without altering the regulation's core design.

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Appendix A: Regional Connectivity and Competition

This appendix analyzes the relationship between EC261 and regional connectivity, as well as the exposure of routes with monopoly carriers to the regulation.

The potential trade-off between passenger protection and the economic viability of routes serving peripheral regions is a central theme in the current policy discussion. Three issues are central to the debate: availability, quality, and monitoring.

First, regarding **availability**, connectivity for remote regions sometimes operates at the margin of commercial viability. These routes may require state intervention, typically through Public Service Obligations (PSOs), to ensure continued operation. There is a potential concern that if such routes were especially strongly exposed to costs from passenger rights, their viability could be threatened.

Second, with respect to **quality**, remote routes are frequently served by a single carrier. In competitive markets, rivalry provides an incentive for airlines to maintain punctuality. On monopoly routes, where market discipline is weaker, the liability framework of EC 261 provides an incentive to maintain operational reliability. The regulation thus establishes a minimum service quality standard on routes where consumers lack alternative travel options.

Third, the regulation serves a **monitoring** function. An enforceable right to compensation in case of long delay or cancellation decentralizes the monitoring of airline performance to individual passengers. This is particularly relevant for PSO routes, as it provides a mechanism for accountability and ensures that public subsidies support reliable operations.

Monopoly Routes: Market Structure and Incidence of Long Delays

Monopoly routes are a mainstream feature of the intra-EU market. In our analysis, we consider competition at the route-month level. As shown by table A1, 35% of intra-EU flights take place on such monopoly routes. Approximately one-third of flights take place on duopoly routes (where two carriers are active) and the remaining one-third takes place on routes with three or more carriers active.

Competition Level	Share of Flights (%)	Delay >= 3h (%)	Estimated Delay Compensation Cost (€/pax)
3+ Carriers	32.39	0.47	0.77
Duopoly	32.63	0.39	0.64
Monopoly	34.98	0.41	0.65

Table A1: Route Competition and Long Delay on Intra-EU Routes

Under the current regulatory framework, the incidence of long delay is not strongly affected by route competition. On monopoly routes, 0.41% of flights have a delay of three hours or more, compared to 0.39% and 0.47% respectively for duopoly and oligopoly routes. This implies that the estimated costs of delay compensation do not vary significantly with route competition. Using the methodology of section 3.3, we estimate the direct costs of delay compensation to be between €0.64 and €0.77 per passenger depending on the level route competition.

The rise of low cost carriers in the EU aviation market is reflected in the fact that this carrier type operates 47% of flights on monopoly routes, as shown in table A2. Regional airlines account for 9% of flights on monopoly routes, while network carriers operate 41%. On these routes, the direct costs of delay compensation are estimated between €0.37 and €0.92 per passenger, with regional airlines having an estimated delay compensation cost of €0.53 per passenger. These findings show that direct delay compensation costs are consistently low, even on monopoly routes.

Airline Type	Share of Flights (%)	Delay >= 3h (%)	Estimated Delay Compensation Cost (€/pax)
Low Cost	46.89	0.56	0.92
Network	41.43	0.24	0.37
Regional	9.48	0.37	0.53

Table A2: Market Share and Delay Incidence on Intra-EU Monopoly Routes by Airline Type

Public Service Obligations

Within the framework of EU airline regulation, Public Service Obligations (PSOs) serve as a strategic intervention to maintain air connectivity on routes that are not commercially viable. Under these arrangements, the state provides subsidies or exclusive rights to ensure the continuity of essential services that would otherwise be underserved.

Based on the inventory published by the European Commission¹⁰, our analysis examines the incidence of significant flight delay on all routes where PSO support was active during the sample period.

Route Type	Delay >= 3h (%)	Estimated Delay Compensation Cost (€/pax)
PSO Route	0.30	0.42
Commercial Route	0.44	0.72

Table A3: Delay Incidence on Intra-EU Monopoly Routes by PSO Support Status

Our findings indicate that PSO routes demonstrate superior operational reliability regarding long delays compared to their purely commercial counterparts:

- **Incidence of Significant Delay:** As detailed in Table A3, the rate of delays exceeding three hours on PSO-supported routes is only 0.30%, notably lower than the 0.44% observed on non-PSO routes.
- **Cost Impact:** This higher degree of punctuality translates directly into reduced compensation cost. The average per-passenger cost of delay compensation (under Regulation EC 261/2004) for PSO routes is exceptionally low at €0.42.

¹⁰ https://transport.ec.europa.eu/transport-modes/air/internal-market/public-service-obligations-psos_en;
Version last updated 04.10.2024

Conclusion

The analysis of the intra-EU aviation market reveals that **monopoly routes are not a peripheral exception but a mainstream feature**, accounting for 35% of all flights. In these less competitive environments, where traditional market discipline is absent, Regulation EC 261/2004 performs a critical role: providing incentives for operational reliability.

The data suggests that the perceived trade-off between robust passenger protections and the economic viability of remote or monopoly routes is largely overstated. Across all market structures, the financial burden of delay compensation remains remarkably low, consistently estimated at **under €1 per passenger**. Notably, on routes governed by Public Service Obligations (PSOs), these costs drop even further to just €0.42 per passenger, driven by superior on-time performance.

Furthermore, the finding that monopoly routes actually incur lower per-passenger compensation costs than the most competitive '3+ carrier' routes underscores a vital point: the current regulatory framework does not disproportionately penalize carriers on less-traveled or regional routes. Consequently, any policy move to weaken passenger rights in the name of cost-cutting would yield negligible savings for airlines while simultaneously removing the regulatory incentive that ensures service quality for those passengers with the fewest travel alternatives.