Modernising Taxi Pricing Policy in Europe

November 2025

Uber steer


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Executive Summary

Context

Taxis are an essential component of urban transport systems across Europe, offering a flexible, on-demand mobility service that complements public transport networks.

The sector has evolved significantly with the emergence of app-based platforms, where taxi drivers can register with digital platform providers such as Uber to connect with riders through digital booking systems, alongside traditional street hails and rank operations. This technological shift presents an opportunity to enhance both service quality and efficiency whilst maintaining the essential characteristics that make taxis a unique transport mode.

European taxi markets operate within diverse regulatory frameworks that reflect local transport needs and policy priorities. These frameworks typically include fare regulation mechanisms, often requiring meter-based fares with limited or no flexibility, as well as licensing caps, geographic operating restrictions, and other market entry requirements such as driver knowledge tests.

As digital platforms have introduced capabilities such as real-time rider and driver matching, GPS tracking, and integrated payment systems, governments face decisions about how regulations should evolve to harness these innovations whilst maintaining appropriate oversight. **Dynamic pricing** mechanisms, which adjust fares based on real-time supply and demand conditions, represent one such innovation, offering potential benefits through improved rider and driver matching, enhanced service reliability, and provision of upfront fares. By enabling more efficient connections between riders and drivers, dynamic pricing increases the capability of the taxi drivers to increase their earnings due to higher utilisation rates and higher earnings during busy times or by more easily serving off-peak demand.

However, European regulatory responses to these technological developments have varied considerably across cities, often limiting the ability for app-based platforms to vary from the use of meter-based fares and deliver these benefits.

Purpose of this study

This study assesses how dynamic pricing can influence the performance of e-hail taxi services in Europe and identifies policy measures that could enhance reliability and long-term sustainability of European taxi services.

This study draws on multiple evidence sources: a review of existing literature, analysis of current regulations and fare policies across 22 European cities, and case studies of key cities. These findings are also supported by an associative analysis of taxi trip data made through Uber's platform across 15 European cities, providing real-world evidence of how different regulatory approaches shape market outcomes.

Evolving e-hail taxi regulations across Europe

European cities have adopted diverse regulatory approaches to taxi pricing on app-based services, ranging from maintaining traditional meter-based fare requirements to introducing fully dynamic pricing. This variation reflects different policy priorities and market conditions across European cities which have been taken into consideration by regulators.

A majority of European cities such as Athens, London, and Dublin have maintained meter-based fares for taxis, whether hailed on the street or via an app.

However, some European cities have reformed their taxi fare policies in recent years to accommodate evolving service models and consumer preferences. Cities such as Helsinki, Berlin, and Vienna have introduced varying degrees of pricing flexibility, recognising the potential benefits of dynamic pricing systems. Helsinki's approach is particularly notable, with the city now operating without taximeter requirements for pre-booked trips, enabling demand-based dynamic pricing whilst requiring upfront fares to be shared with riders.

Based on a review of e-hail taxi fare regulation across 22 European cities, this study has developed three fare archetypes:

- **Archetype A** – Requires meter-based or set rate fares only, including cities such as London, Istanbul, Barcelona, or Dublin.
- **Archetype B** – Allows dynamic pricing with some constraints such as maximum fare caps, or pricing corridors including cities such as Berlin, Paris or Warsaw.
- **Archetype C** – Always allows dynamic pricing i.e., pricing to be set based on real-time demand and supply, including cities such as Oslo, Amsterdam, or Helsinki.

These fare archetypes are used within the associative analysis of the Uber platform's taxi activity data presented in this study, enabling a comparison of the market across different regulatory environments.

Key policy considerations

Allowing flexibility in fares for taxis booked through apps can create benefits for both taxi riders and drivers. Empirical observations, combined with evidence from regulatory pilots and academic research, have informed three key policy considerations:

1 Upfront fares promote fare transparency and help improve taxi performance

The introduction of **upfront fares** can:

- provide riders with a more accurate trip fare estimate before booking
- help riders make informed travel decisions and eliminate 'meter anxiety' by enabling fare transparency

Fare transparency directly improves service performance

Most European cities' meter-based fare requirements prevent platforms from providing the transparency of upfront fares. When required to price trips using a taximeter that calculates fares based on pre-determined rates, app-based platforms can only offer broad fare estimates that don't provide clarity to users of the actual cost of their trip.

Without upfront pricing, riders watch the metered fare increase as they travel without knowing the final cost. Research demonstrates that consumers express a preference for fixed prices over usage-based pricing that creates uncertainty.[1]

Addressing transparency through regulatory reform

Historically, meter-based fares were designed to protect riders from being overcharged, but with more information available to riders, this should no longer be the primary driver of taxi fare regulations.[2]

Several European cities have successfully addressed these information gaps. Helsinki, for example, permits upfront pricing for pre-booked trips, including those booked through platforms.

Where dynamic pricing is permitted, app-based models can address these information gaps by providing both riders and drivers with upfront trip costs, alongside other details including wait times, route information, and journey end times.[3] This transparency provides simplicity for both riders and drivers and can reduce the uncertainty associated with meter-based fares.

On this basis, cities can help enable a more rider-focused taxi service by allowing dynamic pricing which will enable app-based platforms to offer upfront fares to riders.

1 Lambrecht, A., Skiera, B., 'Paying Too Much and Being Happy about It: Existence, Causes and Consequences of Tariff-Choice Biases,' Journal of Marketing Research 43/2, 2006.

2 Cetin, T., Deakin, E., 'Regulation of taxis and the rise of ridesharing,' Transport Policy, 2017

3 Relihan, T., 'Are ride-hailing platforms keeping their drivers honest?' Phys.org

2 Dynamic pricing can improve the reliability of taxi services while unlocking higher earnings for drivers

The introduction of **dynamic pricing** can:

- improve the balance between the number of active drivers and riders requesting trips, leading to higher trip completion rates
- encourage higher levels of driver utilisation, expanding their earning potential

Balancing the number of active drivers with rider trip requests

Traditional taxi markets with meter-based fares can be slow at adapting to changes in real-time rider demand and driver supply. This means that at times of increased demand, the supply of taxis may be insufficient to meet demand.

For example, riders often struggle to find taxis during rush hours, or after a major concert or sporting event. App-based platforms have the ability to direct drivers toward areas of the city where there are higher levels of rider demand.[4] Furthermore, dynamic pricing incentivises drivers to work in high-demand locations and times through the potential to earn higher incomes, improving the ability of riders to find a ride.[5] Analysis of Uber's taxi activity data across 15 cities shows that during high demand times e.g. evening peak (4-7pm), taxi trip completion rates through the platform are 38% lower in cities with meter-based fares than cities that allow dynamic pricing.

In a 2024 survey of European Uber users, 64% said they are more confident staying out late due to Uber, and 54% of riders agreed that Uber was the only way to get home late at night.[6]

Improving driver utilisation and earning potential

Analysis of Uber's taxi activity data shows that driver platform utilisation on Uber, i.e. amount of time spent by taxi drivers picking up riders and providing trips, is up to 56% lower in cities with meter-based fares compared to cities that allow flexibility in fares.

A Taxi Upfront Fare Pilot in San Francisco, which allows taxi drivers to source trips using ridesharing platforms like Uber, found that, on average, participating taxi drivers making trips through ridesharing platforms earned 24.9% more in fare revenue due to higher levels of utilisation.[7]

On this basis, cities can enable more reliable taxi services by updating regulations to allow dynamic pricing, improving both service availability for riders and driver utilisation and earning potential.

4 Astala, N., Valtonen, V., Student Essay Taxi Regulation and Its Impact on User Experience in European Countries.
5 Hall, J., Kendrick, C., Nosko, C., 'The Effects of Uber's Surge Pricing: A Case Study,' 2015.
6 Impact of Uber in the European Union – Economic Impact Report 2024
7 SFMTA, Taxi Upfront Fare Pilot Q2 Report

3 Dynamic pricing can improve taxi access and equity

The introduction of **dynamic pricing** can:

- incentive drivers to serve demand across a wider geographic area
- improve taxi affordability

Incentivising drivers to serve demand across a wider geographic area

In traditional taxi markets, drivers tend to focus their services on more central areas. This is either due to higher chances of finding riders owing to high footfall, or because they are restricted to a smaller operating area by licensing regulation. These central areas also tend to have the highest public transport availability.[8] As a result, it can be more difficult for riders in peripheral areas to find a taxi. These areas are also more likely to be both underserved by public transport as well as inhabited by low-income communities, further expanding gaps in transport access.[9]

An analysis of Uber's taxi activity data shows that average trip distance in cities with meter-based fares is up to 23% lower than in cities that allow some degree of dynamic pricing, suggesting that drivers in cities with restrictive fare policies are more likely to serve more limited areas.

Allowing dynamic pricing for e-hail taxis incentivises drivers to accept rides to residential and more peripheral areas. The San Francisco Taxi Upfront Fare Pilot found that, in Q2 2024, 39% of third-party taxi trips started in peripheral areas, that have historically been underserved by taxis, compared to 23.5% of street hail trips.[10]

Improving affordability of taxis

Highly regulated cities with mandatory meter-based fares, alongside vehicle caps and other supply constraints, tend to have higher fares for taxis, with taxis often perceived as a 'luxury' mode.[11] In Finland, in 2021, taxi regulatory reform was based on the principle that taxis could be made more affordable if fare regulations were relaxed.[12]

Analysis of Uber's taxi activity data, presented in this report, indicates that across all times of day, riders in cities with meter-based fares pay up to 64% higher fares per km compared to cities that allow dynamic pricing (adjusted for purchasing power parity). This runs counter to the concern that dynamic pricing incorporating surge pricing increases average fares for riders. Dynamic pricing, in effect, adjusts fares based on real-time rider trip requests and availability of drivers, enabling fairly priced trips.

On this basis, cities can help serve demand across a wider geographic area and enable a more affordable taxi service by updating regulations to allow dynamic pricing.

8 Lam, C. T., Liu, M., Hiu, X., 'The geography of ridesharing: A case study on New York City,' Information Economics and Policy 57, 2021.

9 Song et al., 'An Application of Reinforced Learning-Based Dynamic Pricing for Improvement of Ridesharing Platform Service in Seoul,' Electronics 9/11, 2020.

10 SFMTA, Taxi Upfront Fare Pilot Q2 Report

11 Cetin, T., Deakin, E., 'Regulation of taxis and the rise of ridesharing,' Transport Policy, 2017.

12 Yle, 'Taxi market liberalisation set to alter fares and services in July

Policy recommendations

Updating fare regulations to allow dynamic pricing for taxis can help realise better outcomes for taxi riders and drivers, as highlighted in the key findings above. Recognising the unique characteristics of individual markets, this study recommends the following five measured policy reforms that European regulators can consider to support the implementation of dynamic pricing:

1 Implement Differentiated Fare Policies for E-hail versus Traditional Taxis

Cities can maintain distinct regulatory frameworks for different service types. Amsterdam, Vienna, and Oslo require meters for street hailed taxis whilst permitting dynamic pricing for app-booked trips. This differentiation provides user choice: drivers can opt for e-hail trips when fares are higher or in times and places where street-hail activity is low, while riders can still choose between upfront, dynamic fares and meter-based street-hail trips.

2 Launch Pilot Dynamic Pricing Schemes

To explore the impact of changing fare regulations, cities can implement controlled pilot programmes to test the impact of dynamic pricing and upfront pricing. San Francisco's approach demonstrates an example of an effective pilot which included voluntary driver participation, clear metrics for evaluation, and changes to fare policies based on the outcome of the pilot.

3 Establish Flexible Fare Bands

Rather than a binary choice between meter-based and full dynamic pricing, cities can implement pricing bands that balance flexibility with oversight. Cities including Vienna and Berlin allow fares to vary to a certain degree from the standard rate (e.g. ±20% of metered rates), while other cities such as Paris and Madrid have implemented maximum fare caps. While our research indicates that full flexibility optimises benefits to riders and drivers, this approach enables a certain degree of pricing variability which can be more effective than only offering meter-based fares.

4 Support Driver Transition and Adoption

Successful transitions to dynamic pricing require gradual implementation approaches that allow drivers to adapt to new systems. Cities and platform providers can help drivers to understand the potential to increase their earnings through higher levels of utilisation by sharing emerging results and examples from other locations. Voluntary pilot phases can allow drivers to experience new systems in advance of mandatory adoption. Transition support might include training on digital tools and temporary financial incentives for early adopters, recognising that fare reform will represent a fundamental operational change for established drivers.

5 Optimise Licensing and Geographic Requirements

Cities can reduce barriers to taxi access and improve equity in service provision by simplifying e-hail taxi licensing policies. With wide-scale adoption of GPS technology, London has recently reduced its driver knowledge test requirements, while Ireland has completely removed this requirement. Furthermore, regulations that limit geographic coverage of taxis can prove to be counterproductive in some cases and can extend gaps in transport accessibility. To resolve this, Paris has exempted pre-booked taxi trips from geographic constraints without compromising traditional taxi operations.

Glossary

Metered (or 'meter-based') fares: Fares which are set and recorded by taximeters and regulated by public authorities. Metered rate calculations differ by city, but usually consist of a base tariff and an additional price per minute and/or per kilometre travelled. Some cities have higher tariffs or additional surcharges at certain set times, e.g. late at night.

Set fares: Fares which are pre-set for particular trip types (e.g. city centre to airport) and may be set by public authorities.

Dynamic pricing: Dynamic pricing is a mechanism where app-based platforms can adjust fares based on real-time driver supply and rider demand conditions. Dynamic pricing can either be fully flexible, or flexible with specific constraints (e.g. where fares are permitted to vary +/- 20% from the metered fare, or maximum fare).

Surge pricing: A temporary increase in fares at a certain time or geographic location where there is a high number of ride requests relative to the number of available drivers.

Upfront pricing: When riders see their final fare before accepting a trip.

Driver platform utilisation: Share of platform time spent by drivers picking up riders and providing trips.

Trip completion rate: Share of trip requests from riders that were completed.

Introduction

1.

Context

Taxis have long been a vital component of urban transport systems, offering a flexible, on-demand transport option to riders, particularly in areas where public transport is more limited.

For decades, the taxi sector operated within established frameworks with street hailing, taxi ranks, and telephone dispatch functioning as the primary door-to-door transport option available 24/7. The rise of app-based platforms, including platforms like Uber, has fundamentally altered this operating environment. Digital platforms now facilitate direct connections between passengers and drivers through real-time matching systems, GPS tracking, and integrated payment processing. This technological shift extends beyond digitisation, introducing new business models that were not possible when longstanding regulations were established, changing regulatory premises and the taxi industry status quo.

The taxi sector has, historically, operated under strict government oversight. Typical regulatory frameworks feature meter-based fares designed to offer uniform pricing to all riders and safeguard them from being overcharged, while additional regulations, such as driver knowledge tests and licensing caps, help to manage market supply.

In many cities worldwide, taxi drivers can now also secure rides by registering with a ridehailing platform like Uber and accessing riders that book trips through an app, alongside traditional methods. However, in many cases the meter must still be used.

App-based platforms enable dynamic pricing mechanisms that adjust fares based on real-time driver supply and rider demand conditions. For example, higher prices during peak demand periods can incentivise driver availability while lower prices during off-peak times can stimulate ridership.

This pricing flexibility offers proven benefits: passengers receive fare transparency and service reliability, while drivers can optimise earnings through both increased trip opportunities and market-responsive pricing signals.

The European Commission recognised this technological transformation in its 2022 notice (2022/C 62/01)[13] highlighting that taxi services have adopted app-based booking methods and that ridehailing platforms have improved service quality and efficiency while increasing user demand. The Commission emphasises that fare-setting rules and algorithms should be transparent, comprehensible, and used in a fair and accountable manner.

Despite these recognised benefits, European cities have been slow in adapting their policies to allow dynamic pricing for e-hail taxis.

13 European Commission, Commission Notice on well-functioning and sustainable local passenger transport-on-demand (taxis and PHV) (2022/C 62/01) | E-000592/2022 | European Parliament.

Purpose of the Study

This evidence-based study explores the impact and relevance of existing e-hail taxi fare regulations across 22 European cities to assess how different regulatory approaches influence market performance in the context of app-based taxi service provision.

The analysis provides an objective assessment of whether existing regulatory frameworks effectively serve taxi riders and drivers, and whether modernisation could better achieve public policy objectives while maintaining appropriate oversight. This choice influences urban transport effectiveness, economic competitiveness, and equitable access to mobility services across European cities.

Study Methodology

Study Scope

This study examines taxi fare regulations and market outcomes across 22 European cities of varying sizes and socio-economic characteristics as shown in Table 1.1.

The selection provides a holistic approach to understanding and assessing the impact of different fare regulations on e-hail taxi performance.

Table 1.1: List of cities included in the study

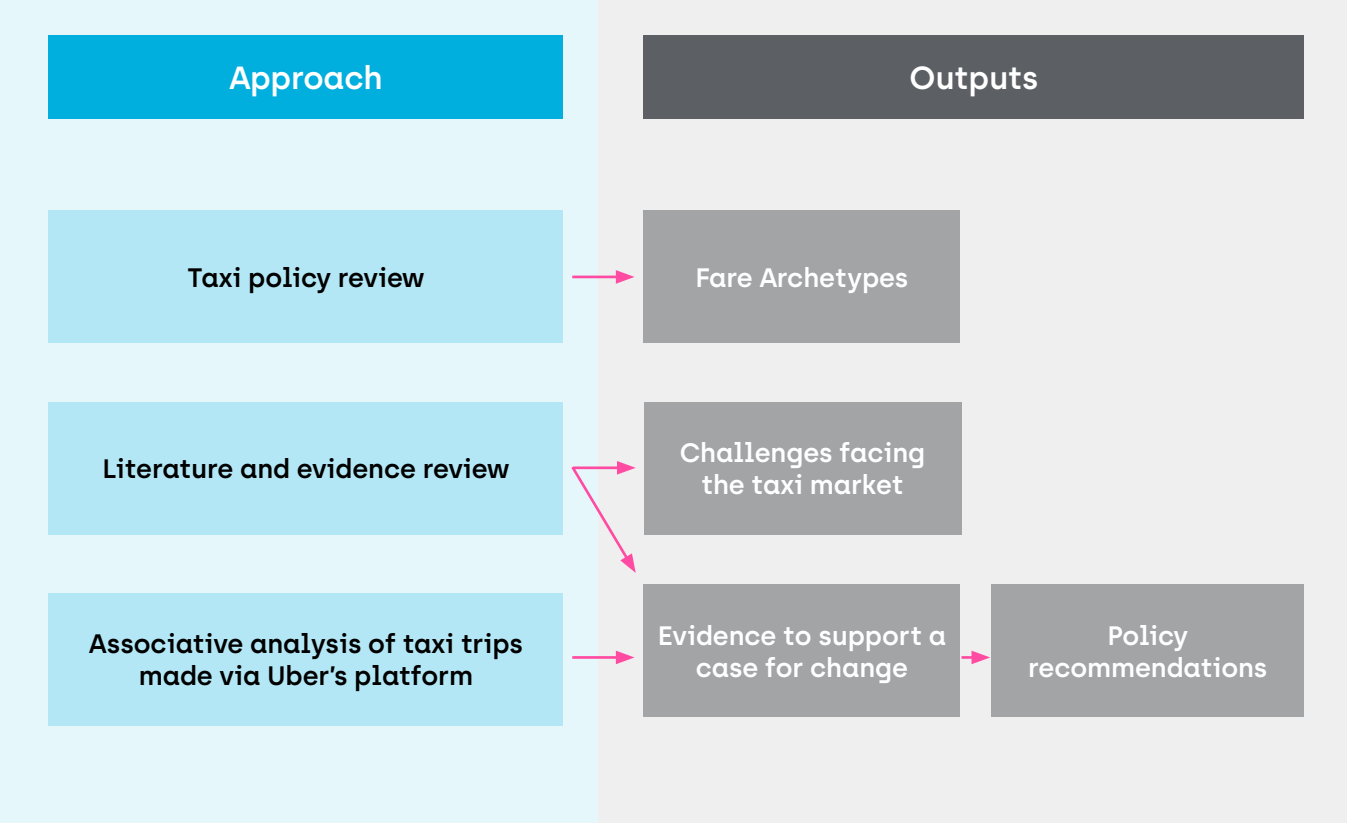
City	Region	Metro area population in 2020[14]	Average net monthly wage in country, 2023 (USD, PPP)[15]	Inclusion for data analysis
Amsterdam	Western Europe	2,017,935	54,300	No
Athens	Southern Europe	3,618,860	23,000	Yes
Barcelona	Southern Europe	5,345,763	38,400	Yes
Berlin	Central Europe	4,558,043	49,100	Yes
Brussels	Western Europe	2,338,157	41,000	Yes
Budapest	Central Europe	2,798,396	29,100	Yes
Copenhagen	Northern Europe	2,088,197	57,800	No
Dublin	Western Europe	1,721,812	50,200	Yes
Hamburg	Central Europe	2,763,491	49,100	Yes
Helsinki	Northern Europe	1,439,175	40,900	Yes
Istanbul	Southern Europe	14,693,269	25,400	Yes
Lisbon	Southern Europe	2,731,340	27,100	No
London	Western Europe	13,475,297	39,900	No
Madrid	Southern Europe	6,989,714	38,400	Yes
Oslo	Nothern Europe	1,422,223	50,600	No
Paris	Western Europe	11,249,025	44,000	Yes
Rome	Southern Europe	3,684,930	36,700	No
Split	Central Europe	277,611	34,800	No
Stockholm	Northern Europe	2,241,651	42,800	Yes
Vienna	Central Europe	2,565,196	48,000	Yes
Warsaw	Central Europe	2,975,932	36,100	Yes
Zurich	Western Europe	2,124,246	63,100	Yes

14 OECD Regions and Cities population, 2020 [https://regions-cities-atlas.oecd.org/EFUA/x/x/T_T/2020]
15 IMF PPP conversion factors [https://tinyurl.com/53tvjbk4]

Study Approach

The following approach has been taken to research and develop the study and policy recommendations.

Figure 1.1: Study approach overview



Taxi Policy Review

In-depth desktop research examined current taxi regulations across all 22 cities, focusing on fare-setting mechanisms, market entry regulations, and recent or planned policy changes. This review drew on official regulatory documents, government publications, and industry reports. Local context and operational insights were obtained through engagement with Uber's city operations leads, providing a practical understanding of regulatory implementation and market dynamics.

The policy review enabled categorisation of the cities into distinct fare 'archetypes' for a structured review of impacts and data analysis.

Literature and Evidence Review

An academic literature review on impacts and potential for dynamic pricing has been undertaken to develop an evidence base for this study. This included a desktop-based review of:

- research examining challenges and impacts of app-based services and dynamic pricing on the taxi market, and
- case studies and evidence from other locations that have implemented flexible or dynamic pricing for taxis.

Associative Analysis

The findings from the taxi policy review have been strengthened by an analysis of taxi activity on Uber's platform across 15 European cities grouped into the three fare archetypes. Analysis focuses exclusively on app-based taxi trips through Uber's platform, as comparable data for street hails and rank pickups is unavailable.

15 out of the 22 cities in scope of the study have been considered for this analysis. The remaining seven cities were excluded from this analysis to ensure data comparability, as either there are no taxi drivers providing trips on Uber's platform or the volume of trips is small and therefore not suitable for statistical analysis.

The analysis uses disaggregated trip-level data made via the Uber app from two representative weeks, one week in March and one week in September 2024, for the 15 cities.[16]

Key methodological considerations include:

- Data has been grouped at the archetype level to assess whether and to what extent different fare regulations and policies are associated with the characteristics of the taxi market. Grouping cities in this way can help to average out idiosyncratic differences that could be more pronounced when comparing individual cities.
- Data has been analysed at the individual hourly level, for a wide range of variables. Hourly data has been grouped together by 'time of day' including evening peak (4-7pm) and all day to consider policy outcomes for different traffic conditions.
- Data from the relevant hourly time slices within each city has been aggregated up to each time period, using either a summation, or a weighted average by the number of completed passenger trips.
- Cities within each archetype have either been summed or weighted using a flat average that considers the contribution of each city to the average equally.

16 In a few cases, the data used is from other, similar weeks, due to policy changes and/or recent market entry making the originally chosen weeks poor comparators.

Taxi Fare Structures in European Cities

2.

Overview

Taxi regulators across Europe are faced with an overarching choice: whether to update taxi fare regulations to accommodate evolving business models offered by app-based services, or to preserve existing regulatory frameworks. The regulatory direction chosen by governments and cities varies across Europe and will likely influence the competitiveness and sustainability of their taxi markets in the years to come.

This section presents a summary of current fare regulations for e-hail taxis, including whether and how taxi regulations have evolved across different European cities and countries in response to changing taxi market dynamics.

Evolution of taxi regulations across European cities

The level of taxi fare reforms have varied across Europe. A 2024 report by the International Association of Transport Regulators (IATR) on 'Modernising Taxi Regulations'[17] confirms that the approach taken varies by geography, but in general European regulators have been cautious to update regulation in the face of disruptive changes to the taxi sector. As a result, metered fares for taxis remain common in European cities.

Taxi drivers often hold significant influence in European cities and have frequently resisted new technologies that they perceive as having potentially negative impacts on their demand and livelihoods. This is witnessed through taxi driver protests that have flared in several European cities in recent years.[18]

Nonetheless, some European cities have begun adapting their taxi regulatory frameworks to accommodate these technological developments, recognising the potential benefits of dynamic pricing and setting a precedent for other cities. For instance, Helsinki allows unrestricted (i.e. fully dynamic) fares for app-based taxi services, while Vienna and Berlin permit fare variations within defined parameters. These varied approaches serve as examples for evaluating different regulatory models and their market impacts.

To illustrate the range of regulatory structures and complexities in e-hail taxi regulations across European cities, the following sections explore specific examples and changes in policy landscape across selected cities, including:

- **Cities that have restrictive regulations,** including meter-based fares and other market entry requirements
- **Cities that have flexible regulations,** that allow a degree of pricing flexibility and
- **Cities where regulations have evolved** to accommodate the introduction of app-based services.

17 IATR's Modernizing Taxi Regulations – International Association of Transportation Regulators, 2024.
18 The Connexion, French Taxi Drivers Strike: Nationwide Protests Threaten to Paralyse France

Cities that have restrictive regulations

A majority of European cities reviewed in this study, including large capital cities such as Athens, Istanbul and London, amongst others, have maintained meter-based fares for taxis, whether hailed on the street or via an app. Typically, these cities also have other supply restrictions such as caps on taxi licences and/or rigorous licensing processes that apply to both traditional as well as e-hail taxis which limits the competitiveness of the taxi sector.

Istanbul provides an example of a regulatory framework that has been slow to adapt to changing market conditions. The taxi supply in the city has remained stagnant at the same volume of around 20,000 vehicles since 1991, with a very limited number of new licences issued recently despite three decades of population growth and rise in travel demand. As a result, today the city has only half as many taxis per thousand people as there were when the city introduced the licence cap in 1991.[19]

This market supply restriction has led to significant increases in the cost of taxi medallions, which was in turn accompanied by consistently large real-terms fare increases over the past three decades. In response to these challenges, an estimated 50,000 unlicensed taxis are assumed to be operating in Istanbul – far exceeding the number of registered taxis in the city. Recognising these challenges, the city is now tendering for 2,500 new e-hail taxi licences in 2025.

London illustrates how comprehensive taxi regulatory requirements can create barriers to market sustainability. The city has a highly regulated taxi market in terms of fare controls (meter-based and reviewed annually), market entry requirements for drivers and vehicle requirements.

Transport for London (TfL) data shows that the number of black cabs (i.e. taxis) licensed to operate in the capital has declined by over a third in the past decade from about 22,500 in 2014 to 15,000 in 2024.[20] During the same period, the private hire vehicle licences have almost doubled from about 50,000 to 95,000 indicating an increase in demand for such services.[21] This data proves that the decline in taxi licences can be attributable to restrictive regulations rather than demand such as high vehicle purchase prices (due to high vehicle standards)[22], and licensing requirements (as many as 49% of taxi drivers consider the difficulty of 'the Knowledge' test as a barrier to entry).[23]

To maintain taxi competitiveness, regulators are introducing measures aimed at making it more attractive to become a taxi driver, including a reform and simplification of 'the Knowledge' test.[24]

19 Cetin, T., Deakin, E., 'Regulation of taxis and the rise of ridesharing,' Transport Policy, 2017.
20 INACTION PLAN: Sharp decline in London taxi numbers sparks overdue scrutiny of TfL's sector strategy
21 Taxi and private hire vehicle statistics, England, 2024 (revised) - GOV.UK
22 Inflation and rising costs could see London taxi fares rise by 4% in April 2026
23 Centre for London, 'The Future of London's Black Cab trade: Delivering a sustainable taxi trade for London,' 2025.
24 TfL. 'Taxi and private hire action plan 2025.'

Cities that have flexible regulations

Some European cities, on the other hand, have more relaxed taxi regulations that support pricing as well as other licensing flexibilities.

Amsterdam, for example, represent cities where fare regulations are flexible enough to allow dynamic price setting for taxis without a need for a reform. Amsterdam demonstrates a streamlined licensing regulation that enables different operational models for taxis. There are no limits on the number of taxi licences, with drivers simply required to obtain a national Chauffeurs card, as well as taxi operator licence, registration and insurance. While attaining a Chauffeurs card can cost up to €1,500 and requires weeks of training through practical and theory exams, drivers operating pre-ordered taxis (known as the 'Bestelmarkt') can utilise flexible pricing without taximeter requirements.

In Croatia, there are very few barriers to becoming a taxi driver with no limit on the number of licences awarded. There is also no physical taximeter requirement, with drivers able to use apps to calculate prices. This has led to high driver adoption of mobile apps, with the vast majority of them registered with Uber, Bolt or local competitors such as Taxi Zagreb. Although drivers need authorisation to operate in different areas, this is easily obtained, with many drivers operating seasonally between Zagreb in winter and coastal cities during tourist season.

Cities where regulations have recently evolved

Finland illustrates how comprehensive sector liberalisation can modernise taxi operations. In 2018, Finland liberalised its taxi sector by removing the requirement for a physical taximeter on prebooked trips and allowing fare regulation only in cases where fares "climb more than overall inflation, or when they become unreasonably high."[25] The country previously had maximum fares, which were perceived to be too high for the average rider, and the authorities believed that liberalisation would lead to lower consumer prices for taxi services. This deregulation was a move towards a more 'rider-oriented' system that supports dynamic price setting to match riders with drivers better, in anticipation of 90% of taxi rides to be booked via mobile apps in future.[26]

Helsinki, Finland's capital, shows how cities can remove traditional fare restrictions while maintaining consumer protection. The city operates without set tariffs for taxis, enabling app-based platforms to employ demand-based dynamic pricing, with the condition that riders can see upfront fares in advance of their trip. These regulatory changes provide greater flexibility for the use of app-based taxi services.

Vienna shows how cities can introduce measured pricing flexibility within existing frameworks. The city has adopted a measured approach since 2021, when the Vienna Taxi Tariff introduced pricing flexibility for app-hailed taxis within +/-20% of the regulated metered rates. This liberalisation came despite the city having eliminated the PHV sector entirely two years earlier. Surveys of taxi riders[27] suggest strong rider preference for upfront fares over metered fares, suggesting broad consumer support for the regulatory changes.

25 CERRE, 211201_CERRE_Report_Transport-on-Demand_FINAL.pdf
26 Yle, 'Taxi market liberalisation set to alter fares and services in July
27 Access Partnership, Rethinking taxi pricing and reforms: Spurring innovation and choice in the taxi industry, 2023.

Fare Archetypes

Following a systematic review of existing e-hail taxi fare regulations across 22 European cities, we have grouped the cities into three broad fare categories or 'archetypes':

Archetype A – Requires meter-based or set rate fares only.

Archetype B – Allows dynamic pricing with some constraints such as maximum fare caps, or pricing corridors.

Archetype C – Dynamic pricing always allowed i.e., pricing to be set based on real time demand and supply.

The list of cities within each archetype are presented in Figure 2.1 below.

In addition to fare regulations, many cities maintain a cap on the number of taxi licences, including for e-hail taxis. These caps by definition can create market imbalances and limit the sector's ability to respond to changing demand patterns over time. Within each archetype, city-level policies relating to market entry vary. For example, within Archetype A, cities such as London and Istanbul have more stringent supply constraints compared to Budapest or Rome. Additional policies beyond fare regulations have been considered to demonstrate the scale of challenges and their impacts on the taxi sector performance.

The current taxi pricing and licensing regulations across the 22 European cities considered in this study are summarised in the Appendix.

Figure 2.1: City classification by Fare Archetypes

Fare Archetype A	Fare Archetype B	Fare Archetype C
Meter-based/ set rates only	**Dynamic pricing allowed with some constraints**	**Dynamic pricing always**
• Athens • Barcelona • Budapest • Dublin • Hamburg • Istanbul • Lisbon • London • Rome	• Berlin • Brussels • Copenhagen • Madrid • Paris • Vienna • Warsaw • Zurich	• Amsterdam • Helsinki • Oslo • Split • Stockholm

In conclusion, whilst some European cities have begun modernising taxi policies in response to technology innovations and changing consumer preferences towards app-based services, the majority of geographies have been slow to adapt. This cautious approach to regulatory change affects the taxi market competitiveness, particularly over the longer term.

European regulatory adaptation reflects preferences for measured policy evolution in transport sectors. Many authorities prioritise consumer protection and market stability when evaluating technological innovations, maintaining frameworks that were developed under different competitive and technological conditions.

This study recognises that no single regulatory approach would work universally, given the varying role the taxi sector plays within different cities' transportation networks. The following section of the report explores key challenges facing taxi markets and examines whether and how more flexible fare regulations can address these issues effectively.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Key Policy Considerations

3.

This section presents the study's three key findings, drawing on a review of existing literature and associative analysis of taxi activity through the Uber app across 15 European cities. Each key finding identifies current market challenges, presents evidence for how regulatory modernisation could address these challenges, and concludes with policy implications.

The three key findings are:

1. Upfront fares promote fare transparency and help improve taxi performance
2. Dynamic pricing can improve reliability of taxi services while unlocking higher earnings for drivers
3. Dynamic pricing can improve taxi access and equity

1. Upfront fares promote fare transparency and help improve taxi performance

The Challenges

Requirements for a taximeter and/or set rate fares limit upfront pricing which impacts the competitiveness of taxi services

In general, Europe's current taxi regulations were developed before app-based technologies emerged, requiring that riders be charged the final metered fare upon reaching their destination. Regulations did not predict the ability for technology to accurately calculate fares before the start of the trip (i.e. upfront pricing) and therefore typically don't allow for this innovation.

Where metered fares are required, upfront fixed fares are precluded, and riders do not know in advance how much they will pay for a taxi trip. Relying on a meter to determine the fare results in a higher level of uncertainty compared to other trips made in urban areas by bus, train, or tram, where fares are known before the start of the trip.

Research by Access Partnership has shown that 52% of riders prefer upfront fares, while only 21% prefer metered fares.[28] This, along with the ability to order taxis to one's exact location using app-based technologies, improves user experience and safety.

Compared to taxis, upfront pricing is prevalent across other mode of transport including bus, rail and ridehailing in Europe. This impacts the competitiveness of taxi services. Researchers conclude that the taxi sector could suffer if it is unable to keep pace with evolving consumer preferences.[29]

28 Access Partnership, Rethinking taxi pricing and reforms: Spurring innovation and choice in the taxi industry, 2023.
29 Petrović, S., Jakšić, T., 'Regulation and Competition of Taxi Services,' in Uber—Brave New Service or Unfair Competition. Legal Analysis of the Nature of Uber Services, 2020. [PDF] Regulation and Competition of Taxi Services.

The Case for Change

Upfront pricing allows riders to make more informed choices

Research by Access Partnership[30] found that riders across different geographies share two important characteristics, namely that they value choice and are sensitive to price.

The research found that whilst riders display a preference for upfront pricing in general, policies that encourage differentiated taxi pricing—referring to the regulatory coexistence of dynamic pricing for e-hailed taxi trips and metered pricing for trips hailed on the street or at a taxi rank— give riders the chance to make more informed choices.[30]

In 2022, the San Francisco Municipal Transportation Agency (SFMTA) announced a pilot program allowing Third-Party ride-hailing apps like Uber to **refer trip requests to participating taxis** and **offer upfront dynamically priced fares.**[31]

The pilot quickly proved successful with the drivers. For example, the pilot has attracted an unprecedented volume of new drivers to become licensed for the first time, growing from 43 new drivers per year in 2018 to 198 in 2023. While there may be many reasons for this rapid growth, Flywheel, the one taxi company to dispatch trips to Uber, has seen by far the most substantial growth in new drivers, indicating a desire among drivers to work in a more modern, tech-enabled taxi sector.[32]

In light of these findings, in May 2025 **the city voted to make the Taxi Upfront Fare Pilot permanent.**[33] The experience of San Francisco indicates that when users have the option to view upfront fares, both riders and drivers can benefit significantly.

In **Paris** within weeks of shifting from metered to upfront pricing, nearly all taxi trips on the Uber platform moved to the new product, and weekly taxi trip volumes roughly doubled. As a result, taxi driver earnings per online hour and utilization on Uber both increased by more than 10%.

Conclusion

Historically, metered fares were designed to protect riders from being over-charged, but with more information available to riders through app-based services, the requirement to use meters for all taxi trips should no longer be the primary driver of taxi fare regulation. Regulations that do not always require taxis to use metered fares and to provide upfront fares can support provision of more rider-focussed taxi service, reducing the uncertainty associated with meter-based fares.

30 Access Partnership, Rethinking taxi pricing and reforms: Spurring innovation and choice in the taxi industry, 2023.
31 Taxi Upfront Pricing Pilot Begins | SFMTA.
32 SFMTA, Taxi Upfront Fare Pilot Q2 Report
33 San Francisco makes upfront taxi pricing program permanent - CBS San Francisco

2. Dynamic pricing can improve reliability of taxi services while unlocking higher earnings for drivers

The Challenges

In most European cities, current taxi fare regulations do not allow dynamic pricing for app-based taxi services.

However, dynamic pricing can support the taxi sector by:

- **Improving the rider experience** through greater taxi availability (particularly during evening peaks and night-time hours) and shorter wait times.
- **Supporting city policy objectives** by reducing the congestion and emissions associated with empty taxi trips seeking riders.

Challenges commonly found across the taxi market in Europe include:

Riders struggle to find taxis during peak hours

When rider demand exceeds driver supply in certain times or places, such as rush hours, or after a major concert or sporting event, riders often have difficulty finding taxis. This challenge can be more pronounced in cities with restrictive market entry regulations, especially those that restrict the driver pool through taxi licence caps, and other regulatory barriers that disincentivise new drivers from entering the market.[34]

Drivers lack incentives to operate during off-peak hours

In cities with fare restrictions and therefore limited incentives to earn higher fares through dynamic pricing, drivers may choose to concentrate their working hours during standard peak hours and days of the week. For example, in Glasgow, reports commissioned by the City Council suggest a lack of late-night taxis is seen as a deterrent to people visiting the city centre at night. Business leaders have called for an increase in taxi licences due to insufficient availability during evenings and weekends, indicating a tangible problem in taxi supply relative to demand at night.[35]

Drivers earn less and travel more miles during periods of oversupply

When driver supply concentrates in certain locations or times of day, drivers can struggle to locate riders, earning less whilst driving empty miles looking for riders and contributing to urban congestion.[36] Limited knowledge about real-time demand means drivers spend excessive time searching for passengers. Underlying demand cannot be served through lowering fares if they are fixed by regulation.

34 Access Partnership, Rethinking taxi pricing and reforms: Spurring innovation and choice in the taxi industry, 2023
35 Meeting to discuss removing cap on private hires and taxis | Glasgow Times
36 Astala, N., Valtonen, V., 'Student Essay Taxi Regulation and Its Impact on User Experience in European Countries - pdf.'

The Case for Change

Dynamic pricing can improve the balance between drivers working and riders requesting trips, leading to higher trip completion rates

App-based platforms have the ability to inform riders of driver availability, as well as directing drivers to areas where there is higher rider demand across a city. Better matching of supply and demand can offer improvements during periods of both high and low rider demand:

- **When rider demand exceeds driver supply:** Dynamic pricing incentivises drivers to serve busy times and locations whilst encouraging riders to postpone more discretionary trips, boosting completed trips and driver earnings.
- **When driver supply exceeds rider demand:** Better supply-demand matching reduces empty kilometres travelled, providing congestion and emissions benefits whilst enabling faster journeys with fewer delays.

Studies demonstrate the potential for **dynamic pricing through app-based platforms to match supply with demand.** An analysis of a sold-out concert in New York in 2015[37] by Hall et al. found that:

- The number of potential riders opening the app in the area increased by four times.
- The introduction of a surge period attracted more drivers to the area.
- Trip completion rate (the proportion of riders who requested a trip and were matched with a ride to their destination) remained high, and wait times only increased marginally.
- Drivers in the area earned an estimated 13% more than they would have without surge pricing.

In this instance, dynamic pricing resulted in a short-term increase in drivers in the area, meaning potential riders were more likely to be allocated a ride within a short period of time.

Without dynamic pricing, sudden and significant spikes in demand for transportation, like those experienced after a concert or sporting event, could trigger "wild goose chases", where high levels of demand and low driver availability, lead to an increase in rider wait times.[38] During periods of particularly high demand, the implementation of surge pricing has proven an effective method to avoid this issue, as increased pricing moderates rider demand, and higher trip earnings increase the number of drivers working in the area, allowing the two to quickly become better matched.

Furthermore, an analysis of Uber's operations in Bangalore, India, indicates that policies regulating minimum and maximum fares can lead to an **undersupply of drivers during highest demand and oversupply during lowest demand.**[39] When demand is high, but prices cannot increase beyond a regulated maximum, more riders seek rides than drivers can accommodate, increasing wait times and cancellation rates.

At times of lower demand, such as at night, drivers can be incentivised to work flexibly through a potential to earn higher income, leading to better outcomes for urban mobility and local economies. In a 2024 survey of European Uber users, 64% stated that Uber made them more confident to stay out late, and 54% of riders agreed that Uber was the only way to get home late at night.[40] A reliable supply of taxi services can support the night time economy of a city for both residents and tourists by improving the safety and reliability of transportation services.

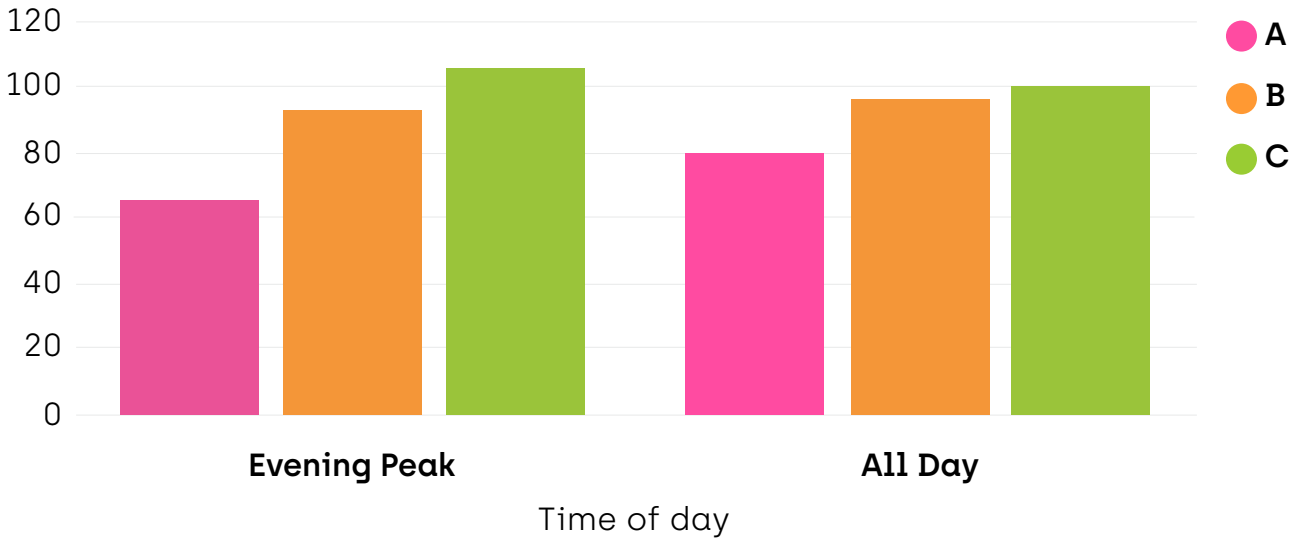
37 Hall, J., Kendrick, C., Nosko, C., 'The Effects of Uber's Surge Pricing: A Case Study,' 2015.
38 Castillo, C. C., Knoepfle, D., Glen Weyl, E., 'Matching and Pricing in Ride Hailing: Wild Goose Chases and How to Solve Them,' Management Science 71/5, 2024.
39 Uber, 'Price Caps Harm Riders and Drivers: A Case Study from Bangalore and Hyderabad,' 2019.
40 Impact of Uber in the European Union – Economic Impact Report 2024

Figure 3.1 shows an analysis of Uber's taxi activity data for two representative weeks in 2024 across 15 European cities. Cities where regulations allow either limited or full dynamic pricing (Archetypes B and C) achieve **up to 26% higher** taxi trip completion rates than cities with meter-based fares (Archetype A).

The difference is most pronounced during evening peak hours, when trip completion rates are up to **38% lower** in more strictly regulated cities (Archetype A), compared to cities where dynamic pricing is always available (Archetype C).

The data analysis also suggests that cities that tightly control the number of taxi drivers demonstrate higher gaps between demand and supply. For instance, Istanbul and Barcelona, with licence caps and/or PHV bans, have app-based taxi trip completion rates **approximately 40% lower than average** across all cities throughout a normal day. This indicates that cities with stricter market entry restrictions may have greater potential to benefit from introducing dynamic pricing to better connect riders with driver.

Figure 3.1: Taxi Trip Completion Rate - Uber, by Archetype and Time of Day (indexed to Archetype C, All Day = 100)




TAXI
POLIZEI

Dynamic pricing can encourage higher driver utilisation, expanding their earning potential

Driver utilisation measures how well the supply of drivers and rider trip requests are balanced, i.e. the proportion of time (or distance) drivers spend serving passengers versus searching for rides. Research by the National Bureau of Economic Research[41] found that, on average, UberX drivers who are able to use dynamic pricing achieved **significantly higher utilisation of vehicles** than taxi drivers, due to a combination of the following factors:

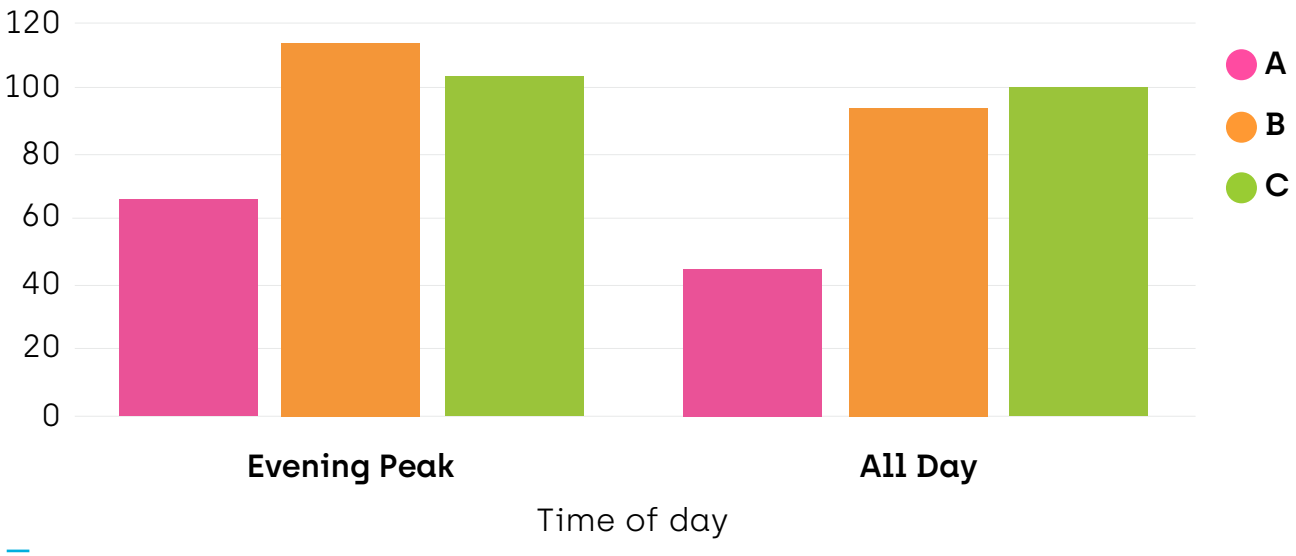
- Surge pricing model employed by ridesharing platforms like Uber being more successful at matching demand with supply.
- Uber's driver-passenger matching technology being more efficient.
- Inefficiency of taxi regulations (e.g. geographic restrictions on where drivers can pick up riders).
- Larger scale and density of Uber's network allowing quicker matches.

The San Francisco Taxi Upfront Fare Pilot demonstrated financial benefits for drivers. In Q2 2024, drivers providing trips through third-party apps have earned on average 24.9% more in fare revenue than taxi drivers not participating in the pilot.[42]

In **Munich** and **Berlin,** within months of introducing a dynamically priced taxi product, weekly taxi trip volumes on the Uber platform grew to several thousand in Munich and tens of thousands in Berlin. Taxi drivers benefited, with earnings per online hour and utilisation on Uber at least doubling.

Figure 3.2 presents an analysis of Uber's taxi activity data across 15 European cities, showing driver platform utilisation variations across cities with different fare regulations. Driver utilisation across the day is highest in cities with the least restrictive regulations (Archetype C). Cities with metered fares only (Archetype A) demonstrate **37-43% lower** driver utilisation during evening peaks and **53-56% lower utilisation throughout the day compared to cities either with limited or full dynamic pricing** (Archetypes B and C).

Figure 3.2: Driver platform utilisation - Uber, by Archetype and Time of Day: (indexed to Archetype C, All Day = 100)



41 Cramer, J, Krueger, A. B., 'Disruptive Change in the Taxi Business: The Case of Uber.' National Bureau of Economic Research, 2016.

42 SFMTA, Taxi Upfront Fare Pilot Q2 Report

This indicates that regulatory frameworks in meter-only cities provide limited incentives for drivers to engage with app-based platform requests compared to street hails. One reason could be a lack of opportunity for drivers to earn more from platforms trips.

Higher vehicle utilisation also supports city objectives by reducing congestion and emissions from taxis driving without passengers.

Conclusion

Research and evidence indicate that dynamic pricing improves the balance between drivers working and riders requesting trips, leading to a more reliable service for riders and more trips and earnings for drivers during both high and low demand periods. The flexibility and potential to earn more when dynamic pricing is available can encourage taxi drivers to serve high-demand locations and work during off-peak times including evenings and nights.

This supports policy objectives of providing more consistent and reliable taxi services, including weekends and late at night. A strengthened taxi service supports greater economic activity within cities and improved service quality for both residents and visitors.

3. Dynamic pricing can improve taxi access and equity

The Challenges

Transport accessibility and affordability are key concerns for European policymakers. Access to transport is often linked to greater wealth and employment prospects, with growing evidence from academics that it also boosts social inclusion and psychological wellbeing.[43]

Taxi trips in highly regulated markets tend to concentrate in city centres and high-demand areas, with fares often less affordable than in cities with less restrictive regulations.[44] These characteristics can limit the equity and affordability of the transport system overall.

Taxis often underserve peripheral areas

In many cities and urban areas, drivers focus on central areas with the highest footfall. Analysis of the taxi market in New York found that areas with few other transport modes have high taxi demand, but this demand is often not sufficiently matched by supply.[45]

This lack of taxi availability in more peripheral areas occurs either due to drivers having a better chance of finding riders in more central areas, or because regulations restrict drivers to operating in smaller operating areas, as in Milan. These central areas also tend to have the highest public transport availability. As a result, riders in peripheral areas with lower public transport alternatives can struggle to find taxis. This can have a greater impact on people with lower income, who often live in areas with poorer public transport links, usually outside central city zones.[46]

Taxis are often less affordable in more heavily regulated cities

Tariffs in more regulated markets are typically higher, reducing access for those who are forced to rely on them.[46] In addition, in places with poor public transport and lower car ownership rates, taxis are often used more by people with lower incomes than those with higher incomes.[47] The European Commission estimates that transport is unaffordable for 21% of households at risk of poverty.[47] As taxis are more expensive than most public transport, excessive regulation can further exclude those most reliant on taxi services from being able to afford to access them.

43 Stanley, J. K., et al, 'Mobility, social exclusion and well-being: Exploring the links,' in Transportation Research Part A: Policy and Practice 45/8, 2011., Moreno-Monro, A. I., 'Access to public transport and labor informality,' IZA World of Labor, 2016.

44 Transform Transport, 'Transport Poverty: Accessibility to Public Transport and Social Vulnerability in Milan, 2025.

45 Lam, C. T., Liu, M., Hiu, X., 'The geography of ridesharing: A case study on New York City,' Information Economics and Policy 57, 2021.

46 Cetin, T., Deakin, E., 'Regulation of taxis and the rise of ridesharing,' Transport Policy, 2017.

47 European Commission, 'Transport poverty: definitions, indicators, determinants, and mitigation strategies,' 2024.

The Case for Change

Market entry and geographic restrictions can negatively affect equity and affordability

Some cities, including several in this study, have restrictions on where drivers can pick up riders. In Istanbul, only 1,000 taxis have licences to pick up customers after completing a trip to the airport - all other taxis must return empty after airport drop-offs. This form of market restriction can lead to a loss of driver earnings, as they cannot accept fares for the return trip.

The stricter geographic restrictions in place, the more geographically focused a taxi market can become as drivers become licenced in areas where they expect highest earnings. **Cities that incentivise new drivers to work in high-demand areas** to maximise earnings through geographic restrictions can often worsen service provision in less accessible, lower-income areas.[48]

In cities like Istanbul and New York, restrictions on taxi licence numbers have led to **higher fares, as supply has not kept up with demand.**[49] This has, in some cases, made taxi services unaffordable for riders, particularly those with lower incomes.

Dynamic pricing can incentivise drivers to serve demand in wider geographic areas

One of the findings from the Taxi Upfront Fare Pilot in San Francisco is that taxi trips that are booked through third-party platforms have extended to outer neighbourhoods of the city that have historically been underserved by taxis. In Q2 2024, 39% of trips booked through third-party platforms such as Uber started in the 'Peripheral Service Area,' compared to only 23.5% for street hail trips.[50]

Similarly, research on surge pricing in Seoul, South Korea, found that implementing dynamic pricing with surges in residential areas and suburbs could increase supply by up to 7.5%, as drivers are incentivised to accept trips in previously underserved areas.[51]

48 Astala, N., Valtonen, V., 'Taxi Regulation and Its Impact on User Experience in European Countries,' Aalto University, 2022. Student Essay Taxi Regulation and Its Impact on User Experience in European Countries - pdf.

49 Cetin, T., Deakin, E., 'Regulation of taxis and the rise of ridesharing,' Transport Policy, 2017.

50 SFMTA, Taxi Upfront Fare Pilot Q2 Report

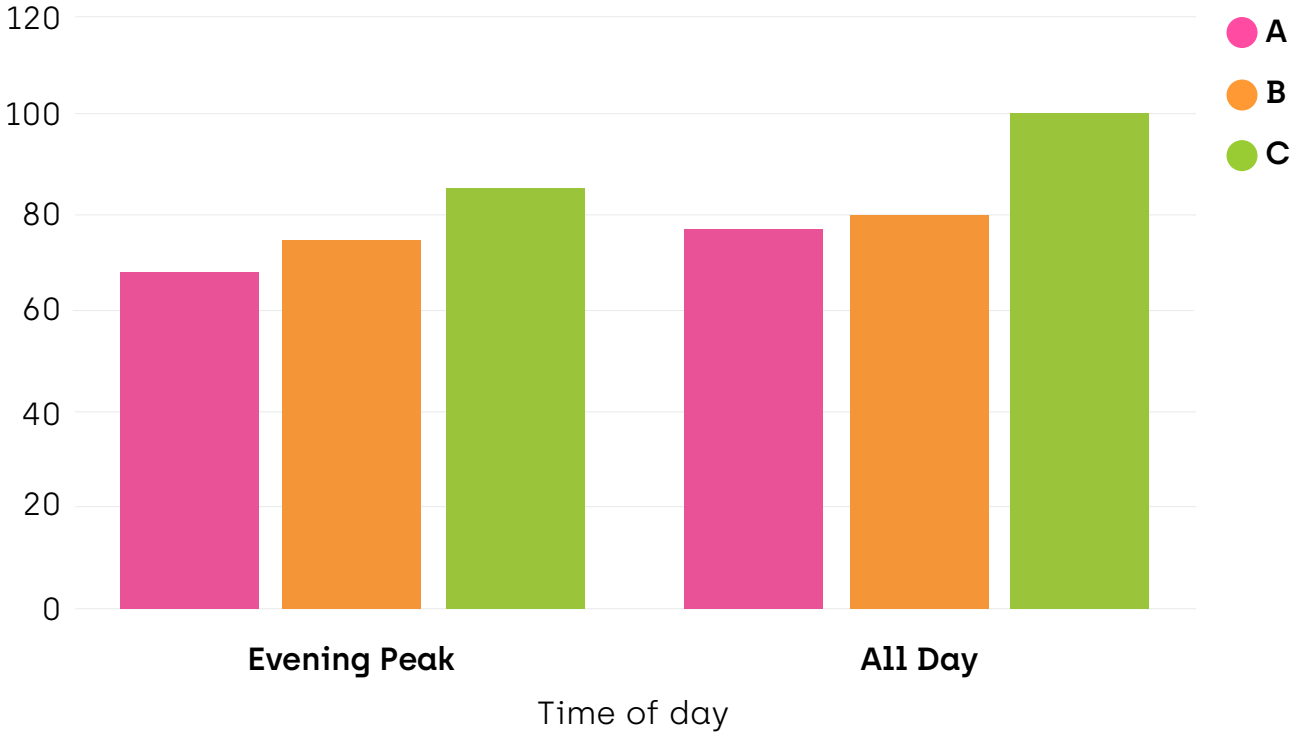
51 Song et al., 'An Application of Reinforced Learning-Based Dynamic Pricing for Improvement of Ridesharing Platform Service in Seoul,' Electronics 9/11, 2020.

Analysis of Uber taxi activity data further supports this finding. Figure 3.3 demonstrates variation in average trip distance across cities with different fare regulations. Taxis in cities with the most restrictive fares (Archetype A) are more likely to serve shorter trip distances, suggesting they serve a more limited area and do not address distributed demand across the wider city.

Across the whole day, average trip distance in cities with fare restrictions (Archetype A and B) is **20-23% lower** than in cities that allow dynamic pricing (Archetype C). In evening peaks, the difference is **10-17% lower.**

These examples indicate that dynamic pricing could improve service provision and encourage taxi drivers to work in areas that would otherwise be underserved by both taxis and public transport.

Figure 3.3: Average successful Trip Distance - Uber, by Archetype and Time of Day (indexed to Archetype C, All Day = 100)



Dynamic pricing may be associated with lower fares for riders

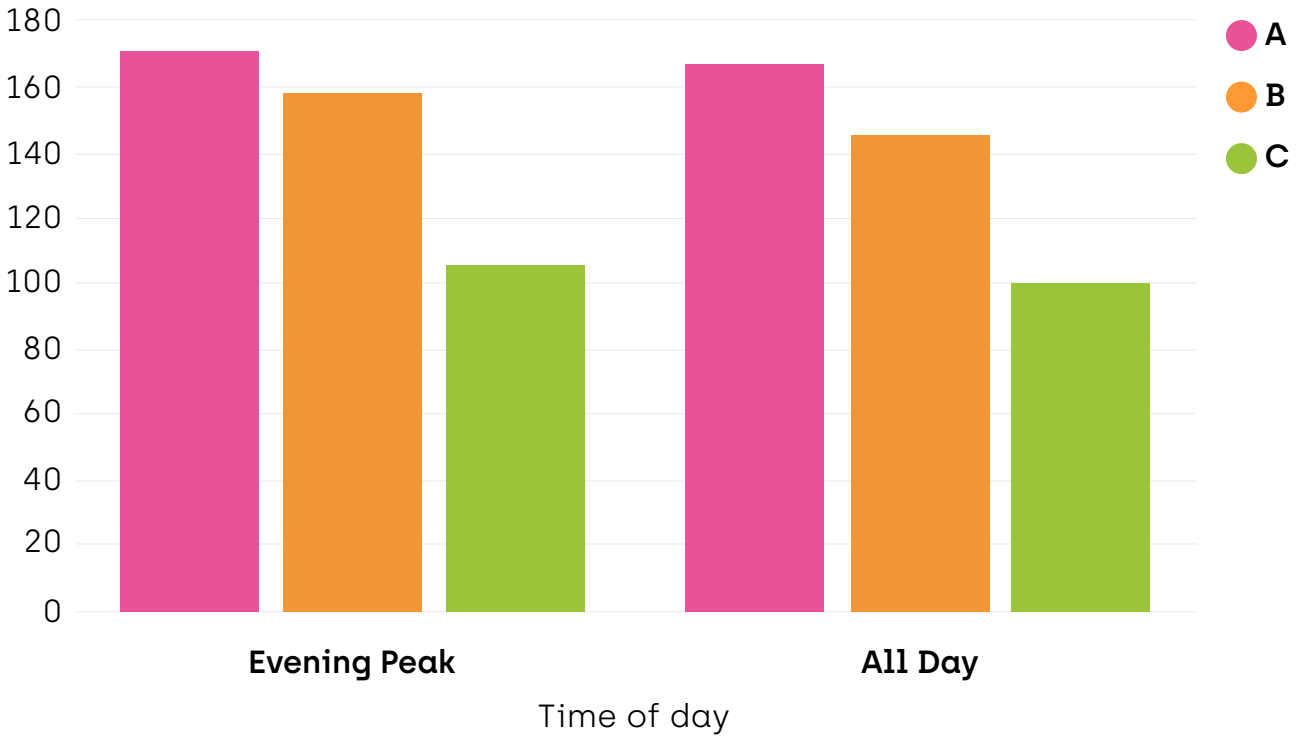
As shown in Figure 3.4, an analysis of Uber's taxi activity data demonstrates that cities with the least restrictive regulations (Archetype C) have the lowest average fares per km when adjusted for purchasing power parity.

The analysis finds that the average fare per kilometre in cities with metered fares only (Archetype A) are highest. This finding is consistent across all day and evening peak times, with fares per kilometre **63-64% higher** in cities with metered fares than those cities that allow dynamic pricing for taxis (Archetype C). Fares per kilometre are also higher in cities allowing a certain degree of flexibility in taxi prices such as maximum fare caps or fare bands (Archetype B), by **47-51%** compared to Archetype C.

As an example, the taxi market liberalisation in Finland in 2021 was based on the principle that taxis could be made more affordable if fare regulations were to be relaxed, along with consideration of evolving user preferences for upfront pricing. In an update to regulations, the need for a meter was removed to allow fares to be set dynamically at all times.[52]

Although relatively little recent research exists on the relationship between taxi regulations and fares, evidence suggests that relaxing regulations can lower taxi fares, particularly in cities with constrained supply. In Wellington, New Zealand, licensing and fare restrictions were relaxed in 1989, which led to a doubling in the number of taxis as well as a reduction in fares over the next five years, accompanied by a large diversification of the sector.[53] Although predating app-based models, Wellington is an example of how deregulation can create a more affordable and competitive taxi market with improved supply.

Figure 3.4: Fare per km (PPP adjusted) - Uber, by Archetype and Time of Day, (indexed to Archetype C, All Day=100)

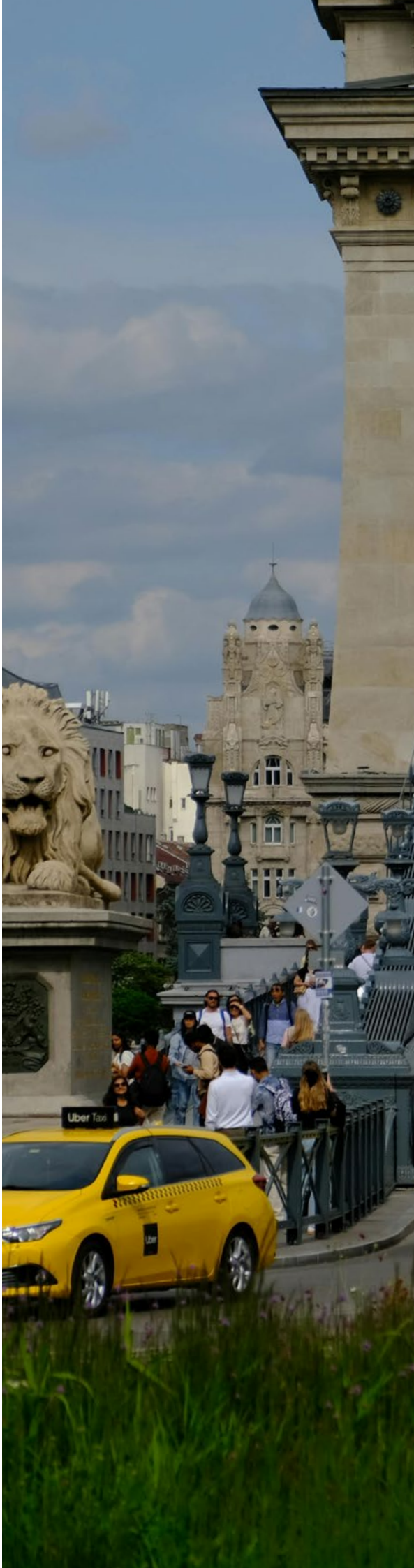


52 Taxi market liberalisation set to alter fares and services in July
53 Deregulating the taxi sector: empirical evidence — Institute of Economic Affairs

Conclusion

Research demonstrates that dynamic pricing can support improvements to both:

- **Access to taxi services:** By allowing dynamic pricing, cities can increase the geographic area where taxi drivers focus their trips beyond the city core and higher demand areas. Often these peripheral areas have relatively lower public transport availability. Therefore, the public transport network can be further strengthened with increased availability of taxis in the outer city areas.
- **Equity in taxi services:** Our research indicates that the average fare per kilometre paid by the users is lowest in cities that allow dynamic pricing, compared to both cities requiring metered fares only and cities that offer some degree of price flexibility.

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Policy Recommendations

4.

Overview

Dynamic pricing can offer benefits for both riders and drivers across European cities. For riders, it can help provide a more reliable service, more affordable fares, and better coverage across all areas of a city. For drivers, it creates opportunities for higher earnings through finding riders more efficiently and demand-responsive tariffs.

Our analysis of taxi activity data from Uber's platform across 15 European cities shows a clear pattern: cities that allow some or full pricing flexibility show higher trip completion rates, longer average trip distances, and lower fares when adjusted for purchasing power compared to cities with fixed pricing only. **Based on this evidence, the report concludes that cities can benefit from implementing dynamic pricing for app-based taxi bookings, allowing fares to respond to demand and supply patterns throughout the day and week.**

Policy Recommendations

There is no unified EU-wide taxi regulatory framework. European jurisdictions set their own fare policies. Recognising the unique characteristics of individual markets, this study recommends the following five measured policy reforms that European regulators can consider to support the implementation of dynamic pricing:

1. Implement Differentiated Fare Policies for E-hail versus Traditional Taxis

Cities can address fare transparency concerns by requiring street-hail taxis to use meter rates, while allowing app-booked taxis to set dynamic fares. Cities such as Amsterdam, Vienna and Oslo have implemented this differentiated pricing policy where e-hail taxi trips are priced dynamically, but street-hails are metered.

This differentiation provides consumers a choice: drivers can opt for e-hail taxi trips when fares are higher or at times and in places where street-hail activity is low, while riders can still choose between upfront, dynamic fares and meter-based street-hail fares for taxi trips.

2. Launch Pilot Dynamic Pricing Schemes

Cities should consider launching pilot programmes with taxi operators to test dynamic pricing and upfront fare models. These pilots help gather data, build stakeholder confidence, and generate evidence to inform more permanent fare policies and regulatory decisions.

San Francisco's approach offers a proven template: begin with drivers who have chosen to opt in to the pilot, establish clear success metrics like trip completion rates and service coverage, and then expand based on measured outcomes. The city observed immediate improvements and transitioned to permanent implementation within two years. Cities can begin with conservative pricing parameters and adjust gradually based on pilot results.

3. Establish Flexible Fare Bands

While fully dynamic pricing yields the most favourable outcomes for cities, politics or driver appetites may challenge near-term pricing reform. Thus, rather than mandating fixed fare levels, cities can establish pricing ranges that allow platforms to respond to demand fluctuations while maintaining regulatory oversight.

For example, cities like Vienna and Berlin allow fares to vary to a certain degree from the metered rates, while some other cities such as Paris and Madrid have implemented maximum fare caps. This model, although not most efficient compared to fully dynamic pricing, balances market flexibility with regulatory oversight, enabling platforms to adjust fares based on real-time demand while maintaining tighter control over pricing.

An analysis of Uber taxi activity data shows that in cities where regulations allow either limited or full dynamic pricing, achieve up to 26% higher taxi trip completion rates than cities with meter-based pricing. This is more pronounced in high demand times, such as evening peak (4-7pm) where the trip completion rate is up to 38% higher.

4. Support Driver Transition and Adoption

Driver unions play a key role in the successful development and implementation of regulations in European cities. Successful transitions to dynamic pricing may call for gradual implementation approaches that allow drivers to adapt to new systems. Cities can equip taxi drivers with the knowledge about the potential to increase their earnings through increased trip completion potential and by working flexible hours.

This approach proves important as the shift to app-based pricing represents a fundamental change in how drivers operate and may require education on digital tools (e.g. navigation, bookings, payments). Regulatory design could establish voluntary pilot phases before widespread implementation, allowing drivers to opt-in gradually, and creating transition periods that let drivers adapt to new digital tools and pricing systems. Incentives for pilot programme participation can also accelerate adoption and improve pilot outcomes.

5. Optimise Geographic and Licensing Requirements

Cities should consider revisiting and updating their taxi licensing policies to better serve riders and drivers with changing needs and market dynamics.

Geographic operating restrictions: Cities like Lisbon or Barcelona limit drivers to their registered municipalities. These restrictions served a purpose when taxis primarily operated in localised street hail markets but may prove counterproductive for app-based systems designed to optimise metropolitan-wide coverage. Cities with pickup restrictions demonstrate shorter average trip distances and reduced service levels in peripheral areas where public transport options are often more limited. Relaxing of geographic operating can facilitate riders being able to access e-hail taxis across a wider geographic area without compromising traditional taxi operations.

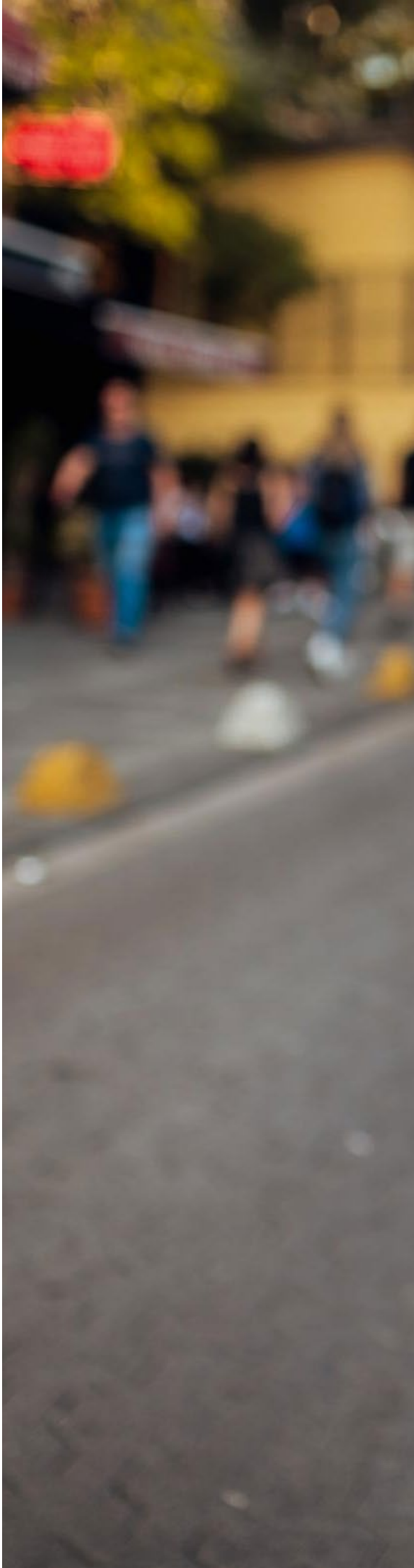
Licensing and entry requirements: Numerical caps on taxi licences, evident in cities like Istanbul and Barcelona, combined with other market entry barriers such as complex knowledge tests or language prerequisites, often correlate with higher fares and reduced service quality by limiting the number of taxis on the streets. These constraints can discourage innovation and increase the urgency for fare policy reform. Without eliminating professional standards, cities could however ensure licensing requirements remain proportionate to their safety and consumer protection purposes.

Further considerations

Policy implementation should reflect local transport contexts. Optimal approaches vary based on each city's transportation ecosystem and available mobility alternatives. Regulatory reform should align with the specific role taxi services play within each city's broader transportation strategy.

Additional considerations for policymakers include:

- **Technology** offers alternatives to traditional regulation and can improve efficiency without heavy-handed controls or extensive regulatory intervention. GPS, digital meters, and smartphone apps provide real-time information that can help markets work better than rigid price controls.
- **Fare transparency** remains critical for consumer acceptance. Users prefer upfront pricing and clear fare displays rather than watching a meter during the trip.
- **Consumer protection** can be ensured with dynamic pricing. EU Consumer Protection Law does not prohibit dynamic pricing. It allows operators to freely determine the prices based on demand and supply mechanisms if the consumers are adequately informed of the prices in advance.[54]
- **Excessive regulation** can lead to reduced taxi supply, higher fares, and sometimes may contribute to illegal taxi operations.



54 Parliamentary question | Answer for question E-002400/23 | E-002400/2023(ASW) | European Parliament

Appendix

City-level E-hail Taxi Regulations

City	Fare Archetype	Fare regulation policy	Licensing regulation policy
Athens	A	Taxi rates are fixed and set by the city, calculated using meters.	Despite no specific regulations limiting their increase, the number of taxi medallions has seen little change in over 20 years.
Barcelona	A	Taxi rates are fixed and set by the city, calculated using meters. Fares were previously calculated solely on distance, but journey time is now part of the calculation.	The number of taxi licences awarded has not changed in decades.
Budapest	A	Taxi rates are fixed and set by the city, calculated using meters. Upfront pricing is not allowed.	There are no restrictions on the number of taxi licences awarded.
Dublin	A	Maximum taxi rates are fixed at the national level.	No legal limit on number of licences awarded, but all new drivers must have a wheelchair-accessible vehicle which alongside an entry test limits driver numbers.
Hamburg	A	Taxi rates are fixed and set by the city, calculated using meters, although upfront pricing is possible.	Taxi licences are capped by the city (currently 3100). There is also a requirement for all new vehicles to be electric.
Istanbul	A	Taxi rates are fixed and set by the city, calculated using meters.	Taxi licences are capped by the city and have seen very little increase in recent decades. There are reportedly a sizeable number of unlicenced taxis operating.
Lisbon	A	Taxi rates are fixed and set by the city, calculated using meters.	In theory, licences are awarded via public consultation, but in practice they have been frozen for years. There are very strict geo-restrictions – taxis cannot pick up passengers outside their registered municipality.

City	Fare Archetype	Fare regulation policy	Licensing regulation policy
London	A	Taxi rates are fixed and set by the city, calculated using meters.	Licence numbers are not limited, but obtaining a licence is difficult in practice due to the difficult knowledge test and high vehicle costs. The number of taxis has been declined steadily in recent years.
Rome	A	Although in theory dynamic pricing is permitted, in practice this seldom happens and taxi rates are fixed and set by the city, calculated using meters.	Not necessarily a set limit, but licences seem to be tightly controlled and awarded via competition.
Berlin	B	Taxi rates are regulated using meters, with fixed price trips allowed within a +20%/-10% tariff corridor.	There are no restrictions on the number of taxi licences awarded.
Brussels	B	Set minimum prices (slightly different for "classic taxis" than for "street taxis" - such as Uber), and maximum fares cannot exceed 200% of minimum price.	1,425 "classic taxis" and 1,850 "street taxis" are allowed. The driver knowledge test is considered to be very hard, and many prospective drivers fail. Licences are expensive (yearly fee) and there is a long waiting list.
Copenhagen	B	No official fare regulation at national or city level, however in practice drivers must join 'Taxi Centres,' which must meet local requirements, one of which is usually maximum fares. So, in effect there are maximum fares but no minimum.	There are no restrictions on the number of taxi licences awarded, although the process to obtain one is expensive and once qualified, drivers are obliged to sign a contract with a Taxi Centre – usually a multiple month commitment.
Madrid	B	Maximum fares are set by the city; however, fares can be up to 15% below the maximum fares.	The number of available licences is determined by the city and typically sees little change. Currently there are around 16,000 drivers operating.
Paris	B	Maximum fares are set by the city, although lower fares can be charged.	Taxi licences are capped, so drivers need to wait for the municipality to expand the number of licences (which does not happen often), or they rent licences from another taxi driver. If licences are available, the process takes 12-18 months.
Warsaw	B	Maximum fares introduced but no minimum rates, some fixed rates are allowed.	There are no restrictions on the number of taxi licences awarded.

City	Fare Archetype	Fare regulation policy	Licensing regulation policy
Vienna	B	Vienna has a set taxi tariff; fares must be within 20% of this.	There are no restrictions on the number of taxi licences awarded, although in practice exam slots can be difficult to obtain.
Zurich	B	Maximum fares introduced but no minimum rates. Taxis doing pre-booked trips or PHV trips can agree prices up-front.	There are no restrictions on the number of taxi licences awarded. Overarching federal regulation defines driver and vehicle requirements: practical test, theory test and medical exam for drivers, tachograph required (physical and digital). In Zurich, there are extra requirements of a criminal background check, and a minimum language level.
Amsterdam	C	There are no fare restrictions for pre-booked taxis, although for other booking methods there are maximum starting and per/km and minute rates but no minimum rates.	There are no restrictions on the number of taxi licences awarded. The process is expensive and time-consuming and additional licensing is required for access to street hail or taxi stands.
Helsinki	C	There are no fare restrictions, although taxis are required to show fares upfront.	There are no restrictions on the number of taxi licences awarded and the process is straightforward.
Oslo	C	There are no fare restrictions outside of trips to certain destinations like airports.	There used to be restrictions on number of licences as well as a requirement to join 'Taxi Centrals', however these were removed when the sector was deregulated.
Stockholm	C	There are no fare restrictions, although a taximeter is required and must be used to record fares, with fare data collected by the government for reporting purposes.	There are no restrictions on the number of taxi licences awarded.
Split	C	There are no fare restrictions.	There are no restrictions on the number of taxi licences awarded. Drivers need authorization for operating in different areas, but this is easy to obtain.

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