Millie Mitchell and Oriane Nermond

Moving with the Times: Financial incentives for sustainable travel

Part 1: How can financial incentives encourage sustainable and active travel?

CENTRE FOR LONDON

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Foreword

This report is another important contribution to the debate around the future of transport in London. It has a timely focus on the financial incentives that currently exist when it comes to travel options across London. Vitally the report looks at how these incentives compare with the costs involved in owning and using private vehicles. For example, many people are not aware of the cost saving that they would benefit from by moving away from private car ownership to car club use. More work is required in order to encourage the levels of modal shift we all want to see.

I am delighted that this report defines vehicle rental within its definition of a shared transport mode. We have been making the argument for some time that vehicle rental – of which car clubs are an intrinsic part – are a key part of the solution to encouraging drivers to give up private car ownership and consider other more sustainable options.

By thinking of vehicle rental as a shared transport mode will create wider opportunities for TfL and London Boroughs. For instance, at Enterprise we have over 40 vehicle rental branches across inner and outer London. These branches are existing infrastructure that could easily be adapted to support other modes of shared and public transport as required. It must surely make sense to utilise existing infrastructure as much as possible before tyring to build new solutions from scratch that will inevitably take time and slow down the transition to sustainable shared modal shift

The report floats a number of creative policy options to encourage people to use shared transport rather than the private car. This is important as we will all need to think differently if we are to meet our carbon reduction and air quality targets. The report also acknowledges the significant potential that Mobility as a Service will offer.

One of the policy options suggested is to encourage people to scrap their car in exchange for mobility credits. We have supported the concept of mobility credits for a number of years and I am delighted that this report sets out why they would deliver better policy outcomes than a traditional scrappage scheme.

We are proud to support the Centre for London in this work and look forward to the final conclusions of *Moving with the Times* later this year. This work is designed to offer practical solutions to politicians and officials across London and make it easier and quicker to deliver the cleaner, greener London we all want to see.

Sak Gill, Vice-President and General Manager South East England, Enterprise Holdings

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Summary

Encouraging more Londoners to travel using active and sustainable modes is critical if London is to achieve its 2030 net-zero carbon emissions target. This can also improve Londoners' health and reduce congestion, air pollution and road accidents. To encourage modal shifts, policymakers can use different instruments including infrastructure investments, regulations, education and nudges, and financial incentives. This report focuses on how financial incentives, including taxes and subsidies, can be used to encourage modal shifts. Other factors such as the transport environment, people's capabilities and needs, and attitudes are explored in the accompanying report *Supporting Sustainable Transport in Outer London*.

For most Londoners, driving is the most expensive mode of transport because of a combination of financial disincentives and intrinsic costs involved in owning and using a car. Positive financial incentives are also in place to make using public transport and shared mobility more financially attractive. Despite these financial incentives, 40 per cent of daily trips in London are made using cars. What else can be done?

In this report, we explore the different financial incentives in place in London and how the landscape could be altered to further encourage people to take sustainable modes of transport. In our research, we found that policy packages, where carrots and sticks are combined, are more effective than standalone policies – improving effectiveness and public acceptability. Effective communication is also important to maximising the potential of financial incentives – people can't make change when they don't know what their options are. New technologies such as Mobility as a Service (MaaS) will be key to support future urban mobility. However, for financial incentives to be effective and fair, policies influencing transport costs, including national taxes and local road user charging, will need to be aligned. This is difficult as transport policies are the responsibility of different levels of government, and of different teams, with competing priorities and scarce resources.

The next sections outline some recommendations on ways to use financial incentives to help the transition to lower pollution and lower carbon travel whilst maintaining fairness. Our first set of recommendations are about ways policymakers can make financial incentives more effective and fairer. Our second set of recommendations are about practical changes to the current financial incentives landscape in London.

Encouraging more Londoners to travel using active and sustainable modes is critical if London is to achieve its 2030 net-zero carbon emissions target. This can also improve Londoners' health and reduce congestion, air pollution and road accidents.

Recommendations

Recommendations about ways to make financial incentives more effective and fairer

To communicate effectively about travel costs and existing financial incentives

1. National government, Transport for London (TfL) and local authorities should make it easier for people to know the overall cost of driving relative to other modes of transport such as car clubs, cycling and bus, and to find out about existing financial incentives not to own a car.

   Here are some ideas on how this can be done:

   - A campaign could be launched at different levels of government to raise people's awareness about the actual costs of driving. TfL already shows how much a car costs on its website, but national government and local authorities could also introduce similar campaigns to reach out to more people.
   - Local authorities could share information about existing alternatives to owning a car when residents renew their parking permits to ensure their campaigns target the right people.
   - Local authorities could also share information about schemes available in their boroughs, such as 'try before you bike', when a new resident registers for their council tax.

2. National government, TfL and local authorities should communicate about any new financial incentives or disincentives in advance of their introduction to allow people time to adapt their travel behaviours (e.g. giving plenty of notice that the price of resident parking will change so people can look into alternatives to owning a car).

To consider all incentives as part of a package of measures to boost their effectiveness and ensure fairness

Policy packages are more effective than standalone policies in encouraging modal shifts as they improve public acceptability and fairness.

3. National government, TfL and local authorities should consider the push and pull framework when designing a new policy in order to increase public acceptability and ensure fairness. For example, local authorities can increase the price of their residential car parking permits and lower the cost of their secure bike parking or parking spaces for car clubs.
4. National government should seek to align their existing policies that impact the cost of travelling, such as fuel duty or annual rail fare increases, to work towards the same objectives.

Recommendations for practical change and policy solutions to encourage active and sustainable travel

This section sets out some recommendations for practical policy solutions to encourage more sustainable and active travel.

To further disincentivise driving where alternatives are possible

1. Local authorities should use their parking strategy to encourage modal shifts.

   Here are some ways to do this:

   - Local authorities should support their teams involved with parking and active and sustainable travel to work together. This will ensure decisions about parking costs are aligned with active travel objectives.
   - Local authorities could introduce emission-based parking permits if they haven't already. Local authorities would need to engage with residents and offer advice and support for those who would be the most impacted by the change. To maximise its effectiveness, this measure will need to be introduced over a period reflecting the time needed for such behaviour change.
   - Local authorities could consider introducing more granular emission-based bands for their residential parking permits to ensure a more comprehensive and fairer pricing structure.
   - Local authorities could raise the overall price of their residential parking permits to manage demand for parking. Any surplus could be reinvested to support active travel.
   - Local authorities could consider reducing the cost of parking permits for car club vehicles.

2. TfL should introduce distance- and emission-based road user charging. To discourage people from driving for short journeys, TfL should consider a minimum charge equivalent to at least a single bus fare to ensure driving remains more expensive than public transport.
3. TfL should offer a scrappage scheme to Londoners on low incomes or disability benefits to dispose of their cars (irrespective of the car emissions) in exchange for 'mobility credits' that can be used to pay for public transport and a range of shared mobility providers.

To unlock cycling – from acquisition to storage – reinforcing the financial attractiveness of cycling

4. Local authorities should provide affordable and secure cycle parking with reduced rates for households on Universal Credit.
5. TfL should provide more funding to London boroughs to install and maintain secure parking for bicycles when its financial position allows.
6. National government, local authorities, TfL and Business Improvement Districts should encourage businesses to participate in the Cycle to Work scheme, focusing on Small to Medium sized Enterprises (SMEs).
7. National government should offer tax incentives and loans to all citizens wanting to buy a bicycle. This could be based on the current cycle to work scheme but be available to more people, particularly those who currently face the biggest barriers to access. To unlock cycling – from acquisition to storage – reinforcing the financial attractiveness of cycling

To encourage public transport use

8. National government should either provide sufficient funding for TfL or grant the Mayor of London greater powers to raise funds in the capital.

   More detail is given on this recommendation in our report on *Supporting Sustainable Transport in Outer London*.

9. National government and TfL should consider freezing public transport fares as a way of helping people with the cost-of-living crisis.

To encourage multi-modal travel through a consistent and affordable pricing system

10. TfL, national railways and local authorities should deliver high quality, free and safe bike storage at every train and tube station.
11. TfL should seek to work with operators and app developers to integrate payment mechanisms for shared mobility providers with payments for public transport in London.

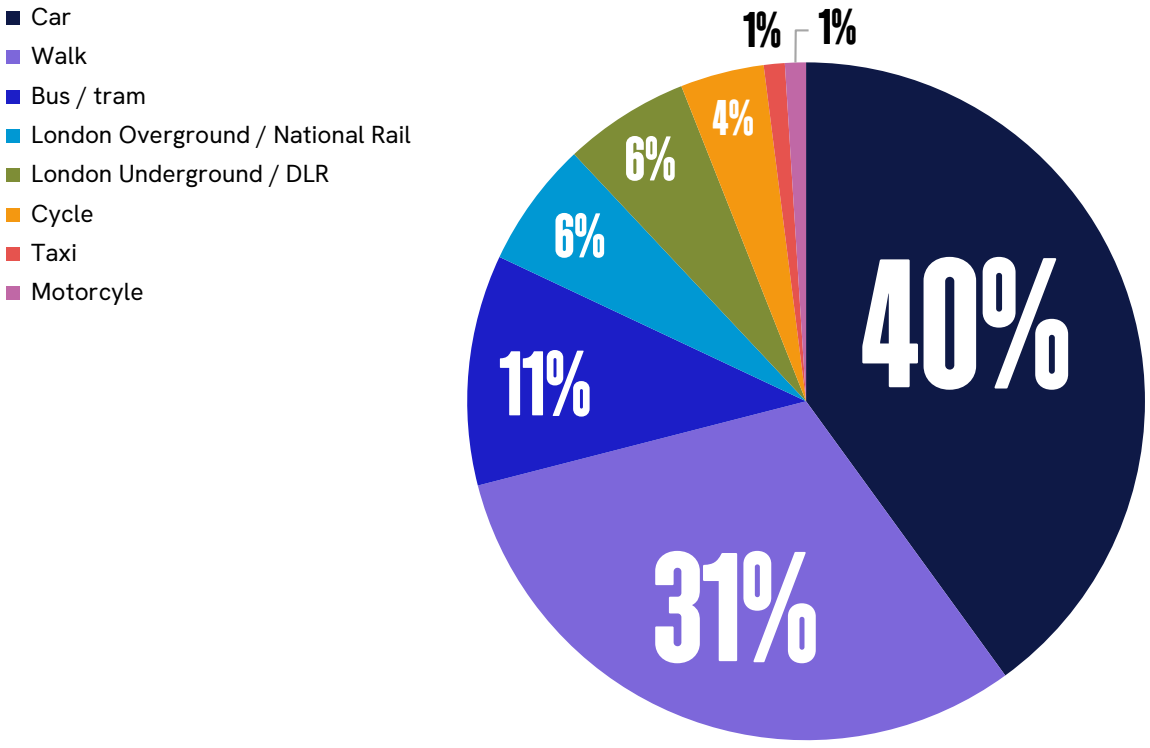
Introduction

Getting people to switch their journeys to more sustainable modes of transport is vital if London is to achieve its target of being a net-zero city by 2030. Transport is one of the largest emitting sectors in London, accounting for around a quarter of greenhouse gas emissions.[1] Of this, over 75 per cent is caused by road transport.[2] Road transport is also the leading contributor to air pollution[3] which is estimated to cause up to 9,400 premature deaths each year.[4] Other negative externalities of driving are congestion and road accidents, making streets less desirable for walking, cycling or spending time in. Yet 40 per cent of daily trips in London in 2021 were made by car (see Figure 1).[5] To encourage the modal shift that London needs, the Mayor has set a target for 80 per cent of journeys to be made by active, efficient and sustainable travel by 2041. But as Figure 1 shows, these modes accounted for just 58 per cent of daily trips in 2021. Analysis by TfL in 2017 found that three-quarters of journeys currently made by car could instead be made on foot, by bicycle or by public transport.[6] And in its latest *Travel in London* report, TfL predicted that, with the "appropriate incentives", 21 per cent of residents' car trips would have a high likelihood of being switched to more sustainable, active and efficient transport modes by 2026.[7]

Policymakers can mobilise different instruments to encourage modal shift that can be broadly categorised as: infrastructure investments, regulations, education and nudges, and financial incentives. This report focuses on how financial incentives, including taxes and subsidies, can be used to encourage modal shift.

Driving makes up the largest single proportion of daily trips in London

Figure 1: Mode share of daily trips in London, 2021



Source: Transport for London (2022) Travel in London Report 15

Financial incentives have proven effective at prompting modal shifts towards cleaner vehicles[8] and active travel.[9] But some financial disincentives, such as road pricing, can be perceived as unfair or ineffective.[10] Positive financial incentives are less negatively perceived by transport users. However, some people have raised concerns about their effectiveness in reducing private car usage.

In this research, we review the incentives in place in London and explore how to change the landscape of financial incentives to help achieve the Mayor's target for 80 per cent of the trips to be made by active and sustainable modes of transport. In the second part of this report, we illustrate how financial incentives can affect Londoners' travel costs.

GLOSSARY

Some of the terms appearing in this report are used in different ways across the literature. The following shows how we define them for the purposes of this research:

Active travel
Journeys undertaken by physically active means such as walking or cycling. Journeys made by active travel are typically very low carbon and offer physical and mental health benefits for the individual.

Financial incentives
Financial incentives are used to encourage behaviour change. They could be classified into two broad categories: positive incentives and negative incentives (i.e. disincentives). Positive incentives financially reward people who engage with a certain behaviour whilst negative incentives financially punish people for engaging with the wrong behaviour.

Modal shift
A change in transport choice. In this report, modal shift specifically refers to a reduction in driving and an increase in sustainable and active travel.

Multi-modal travel
A travel pattern that involves using two or more modes of transport to undertake one journey – for example, cycling to the station then completing the journey by train).

Policy package
Several policies (or measures) aiming to achieve one or several objectives. Whilst the measures are designed at the same time, they could be introduced in a sequence.

Shared transport
A model of transport where typically private vehicles are instead shared – for example, rentable bikes like Santander cycles, e-scooters, car rentals and car clubs. Shared transport is considered a more sustainable form of transport because individuals share the resource more efficiently.

Sustainable travel
An umbrella term for public and shared transport modes. Note that whilst electric, hybrid or hydrogen vehicles are more sustainable than their fossil fuel counterparts, they do still contribute to air pollution (e.g. Particulate Matter) and congestion in urban areas. See our accompanying report on *Supporting sustainable travel in Outer London* for more detail on why encouraging the take-up of Electric Vehicles (EVs) is not a focus of our transport programme.

Trip chaining
A travel pattern that involves visiting multiple locations as part of one journey – for example, a parent taking their child to school and then travelling from the school to their workplace.

Chapter 1
Governance landscape of policies impacting transport costs

Policies influencing transport costs exist at local, regional and national levels of government (as set out in Table 1). Whilst some of these policies are directly targeted at encouraging behaviour change, others exist to fulfil different purposes such as generating revenue. Understanding the complexities of this landscape is important when considering the introduction of new policies as the cost to the end user typically involves a combination of policies at all levels.

Table 1: Goverance of financial incentives

National government	Fuel duty VED	Funding deal places restrictions on TfL	Cycle to work scheme
Transport for London	ULEZ & Scrappage Congestion Charge	Fares Caps & Hopper Fare Concessions	Funding towards cycle hangars Santander cycles
Local authorities	Parking permits	-	Cycle hangars Trial bike schemes

National government

National government sets the overall direction for transport policies. It sets climate targets, fuel duty and road taxes for cars. This means that national government is well placed to introduce financial incentives as a lever for encouraging sustainable and active travel.

But national government is not a homogeneous entity and so these policy instruments are distributed between departments, leading to the introduction of policies with sometimes competing objectives. For example, whilst rail fare policies fall under the Department for Transport, fuel duty and vehicle excise duty (VED) are both taxes and so part of the remit of the Treasury.

Mayor of London and Transport for London

TfL is London's regional transport authority, controlled by the Mayor of London. Like national government, TfL has existing policies influencing the costs of transport modes, such as the Congestion Charge, public transport fares and Santander cycle hire prices. However, TfL's capacity for new financial incentives is currently undermined by a lack of funding. Whilst TfL has typically been self-sustaining through fares and other commercial revenue, the sharp decreases in passenger numbers during and after the pandemic have led TfL to depend on financial support from central government. After a series of short-term deals, there is now a settlement in place to the end of March 2024. But this settlement contains certain conditions – such as fares rising at the same rate as on National Rail and concessions being in line with national schemes.[11] This process of agreeing funding has been acrimonious at times, and it is unclear how it will develop over the next one to two years. Our accompanying report on

outer London proposes some policy solutions to support TfL financial security including changing the Greater London Authority (GLA) Act to allow for some fiscal devolution to raise more money in the capital.

Local authorities

Local authorities in London can influence the costs of driving and cycling. They receive funding from TfL to implement the Mayor's transport strategy. Whilst this funding enables them to introduce many schemes to encourage cycling, walking and the use of public transport, the limited nature of the funds can also restrict their capacity.

Local authorities can also be limited by *who* they can influence. Whilst local authorities can financially incentivise the travel behaviours of residents, they are typically unable to apply these to people who are just travelling through. Interviewees from Central London local authority mentioned that this is a particular issue for boroughs situated between central and outer London, for whom through-traffic makes up a large part of the driving in the borough.

"The majority of our traffic is people travelling through the borough rather than to the borough."
Local authority officer[12]

Chapter 2
What financial incentives are in place in London?

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Londoners are already offered many incentives to use alternatives to private vehicles. In this chapter, we review the various financial incentives and disincentives currently in place in London.

Table 2: Financial incentives and disincentives in place in London

	Incentives	Disincentives
Transport availability (or ownership) charges	▪ ULEZ Scrappage scheme ▪ VED for EVs & low emission vehicles ▪ Cycle to work scheme ▪ Try before you bike scheme ▪ Santander cycle subscriptions	▪ VED for petrol and diesel vehicles ▪ Parking permit charges (at home)
Transport use charges	▪ Subsidised public transport for specific user groups (e.g. 16+ Zip Oyster) ▪ Capped public transport fares ▪ Bus Hopper fare	▪ Congestion Charge ▪ ULEZ charge ▪ Parking charges (at destination) ▪ Fuel tax

Financial disincentives to own and drive private cars

Intrinsic costs of owning a car

Many of the costs associated with owning a car are not a direct result of policy intervention. In the first few years of ownership, the cost of purchasing the car is often one of the largest costs. But high purchase costs do not always disincentivise people, and instead can be part of a given car's appeal, symbolic of an individual's wealth. 90 per cent of new cars are purchased on finance, allowing people to spread this cost over time.[13] However, over time, the purchase costs of a car become less relevant. If they purchase a car outright, after the first year, many people won't consider the purchase costs at all. Furthermore, some people plan to resell their car, so the sunk cost is perceived to be lower than the actual cost of a vehicle.

Fuel price and fuel duty

The primary use cost associated with driving is the cost of fuel. This is typically paid in lump sums and spread out over multiple journeys. Fuel prices themselves often fluctuate according to market value, with supply chains heavily influenced by global politics. For example, prices most recently surged in the summer of 2022, peaking at 48 per cent above the previous July.[14] As well as VAT, automotive fuel is subject to a fuel duty which is calculated per litre purchased. The number of people who drive is relatively inelastic in respect to fuel price in the short term and increases in price in 2022 have resulted in relatively little reduction in consumption.

But a New Economics Foundation analysis reveals that the decision to freeze fuel duty in 2023 could result in a 3.9 per cent increase in total CO2 from road emissions over the next year.[15]

Fuel duty raises substantial revenue for the government – estimated at £25 billion in 2022-23.[16] But keeping the fuel duty unchanged since 2011 is estimated to cost the government £9 billion a year according to the Institute for Fiscal Studies.[17] A growing number of experts are calling for national road user charging to replace fuel duty in response to falling fuel duty revenue due to the increased number of EVs.[18] In addition, road user charging could address other negative effects from driving such as congestion – we discuss this further in the policy paper section.

Vehicle Exercise Duty (VED)

VED, known as "road tax", can incentivise people to choose low, or zero, emission vehicles. When people purchase a new car, they pay a charge calculated according to the CO2 emissions of the vehicle, with low emission vehicles paying as little as £10 whilst the most emitting vehicles pay over £2,000. This does financially incentivise people to choose low emission vehicles, but compared to other European countries, the tax differential is quite small.[19] People are also unlikely to consider the different first year VED costs when purchasing a new vehicle. Only first year VED is emissions graded, so people purchasing second-hand vehicles are not incentivised by this measure.

At present, EVs pay no VED at all, which incentivises drivers to choose them. But the government has recently announced that from 2025, EVs will be subject to VED, albeit at a reduced rate. One of the reasons behind this change is that in its current form, VED is a regressive tax, with low earners carrying the greater burden. This is exacerbated by the fact that people in the lowest 20 per cent of household incomes are least likely to own a car in the cheapest registration tax bands (A-C).[20]

"With the Congestion Charge, you've obviously got the example where a lot of investment in buses happened at the same time and on purpose as well. Because that was the carrot, that was the thing that made it much more acceptable and kind of gave people alternative options."

Council officer

Congestion Charge

In London, additional charges have been introduced to disincentivise driving. The Congestion Charge, which was first introduced in 2003, is now a flat £15 fee for car journeys in the central charging zone. At the time when the charge was introduced, then-mayor Ken Livingstone also invested heavily in increasing public transport provision, such as deploying 300 new buses on the first day of charging. In 2021/22, the charge raised £423 million of revenue for TfL, which is reinvested in public transport provision.[21]

In many ways, the Congestion Charge has been a success. In the first two years, congestion in the zone was between 20 and 30 per cent less than before the scheme. But by 2007, journey times within the zone were found to be comparable to those prior to charging.[22] Despite its success, the Congestion Charge is perceived to be outdated, and many observers are calling for reform of the charge.[23]

Ultra-Low Emission Zone (ULEZ) charge

The introduction of the ULEZ in 2019 is another example of a use charge to disincentivise car journeys. But unlike the Congestion Charge, which is a flat rate for all non-exempt vehicles, the ULEZ differentiates between high and low emission vehicles to encourage people to switch to greener vehicles. Initially it covered the same area as the Congestion Charge, but it was expanded in 2021 to cover the inner London area (inside the North and South Circular roads) and plans are in place to expand the ULEZ to cover all of Greater London in August 2023. The impact report on the first expansion of the ULEZ found that a greater share of vehicles driving in the ULEZ area were cleaner than before the expansion.[24] 94 per cent of vehicles met ULEZ standards on an average day, up from 87 per cent before the expansion and 39 per cent in 2017. As a result,

NO2 concentrations in central London have been estimated to be 44 per cent lower than they would otherwise have been, whilst inner London's levels are 20 per cent lower.

Car parking

The cost of parking a car at home is another financial disincentive to own a car. Whilst for people with off-street parking this cost is internalised into the cost of their home, many people in London pay for parking permits from their local authority. Analysis from the RAC Foundation found that 56 per cent of households in London don't have any access to off-street parking, compared to just 32 per cent across the rest of England.[25] The London average for a residential parking permit for the year is approximately £100,[26] but the charges vary substantially across the city. In inner London (excluding City of London), the average annual cost of a permit for residents is £130 whilst in outer London, the average cost is just £82.[27]

Many local authorities in London are using residential parking permits to incentivise owning greener vehicles by charging higher prices for more emitting vehicles. Typically, this is done by categorising vehicles into bands according to their emissions, but in some cases, such as in Kensington and Chelsea, the charge increases for every gram of CO2 emitted.[28] The strength of the financial disincentive also varies; some boroughs charge in the region of £500 more per year for the most emitting category of car compared to the least, whilst in others the difference can be as small as £25. Some local authorities have also introduced emission-based charging for short stay parking, which increases the cost for emitting vehicles on a per journey basis. Yet several local authorities don't use any emissions grading in either their residential permits or short stay parking. Partly this is due to political will; many local authorities without emissions graded schemes are located in outer London where there are higher levels of car ownership and so higher political stakes to introducing such a scheme.

Nottingham workplace parking levy

A workplace parking levy (WPL) is a tax levied on employers with more than 10 employees for providing on-site staff parking spaces. The tax is enacted by the local authority to cover a given area, and the cost can be passed on to employees. As such, the WPL is a lever aimed at increasing the use costs of commuting by car whilst simultaneously raising money for local transport schemes.

Nottingham's WPL was introduced in 2011 to help finance an extension to the city's tram network and upgrades to its central train station. The consensus among businesses about the need for these improvement schemes supported the city council in introducing the politically contentious WPL. In the first 10 years of the scheme, the WPL raised £90 million for the council, and the reinvestment of these funds also enabled a further £1 billion of inward investment in transport.[29] Along with the tram and train station improvements, this funding has allowed the council to introduce 18 km of new bus lanes and offer grants to employers to encourage sustainable transport in their workplaces.

Yet despite Nottingham's success, no other local authority has introduced a WPL. Several London boroughs have explored this option but have encountered difficulty in establishing how much workplace parking exists in their borough and so struggled to evaluate the benefit of introducing such a scheme. Relatively low political will, concerns about implementation costs and the impact of the pandemic on working patterns have all contributed to many consultations being paused.

"We looked at all the options, raising council tax, raising business rates, European grants, everything. But none of them really fitted the bill. The levy was the ideal vehicle to do that."

Nottingham City Council officer

Financial incentives to dispose of private cars: scrappage schemes

Along with the ULEZ charge, TfL also introduced a scrappage scheme for business vehicles, private cars and motorcycles. The scrappage scheme allows eligible applicants to exchange their non-ULEZ-compliant car for a £2,000 grant. People who live in London and receive at least one of a number of means-tested income benefits or non-means-tested disability benefits are eligible for the scheme. A TfL evaluation report found that the ULEZ scrappage scheme has cost the Mayor a total of £61 million since 2019 and has removed 9,786 non-compliant cars from London's streets.[30] Approximately one in three recipients of a scrappage scheme grant didn't purchase a replacement car or motorcycle. But of the two in three who did, the majority purchased a new petrol or diesel car, and only 3 per cent purchased an EV. It is likely that this can be explained by the high costs of EVs compared to traditionally fuelled vehicles, and a smaller number of EVs in circulation in secondhand markets.

Mobility credits

Mobility credits consist of schemes providing people with credits to spend on sustainable or active transport modes, such as public or shared transport. Since 2021, mobility credits have been given to Coventry residents who scrap a heavily polluting car. TfL also explored the possibility of mobility credits as an alternative to the grant payments made as part of the scrappage scheme, but focus groups with eligible applicants revealed that grant payments were the preferred option. However, whilst payment grants offer flexibility for applicants, they don't encourage modal shift in the same way as mobility credits do.

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Financial incentives to use active and sustainable modes of transport

Purchasing a bike at a reduced price

In a TfL survey, 50 per cent of non-cyclists who were open to cycling reported that not being able to buy and maintain a bicycle was a barrier.[31] Reducing costs could remove this barrier to cycling. There are already schemes in place to do this. The national Cycle to Work scheme allows employees to purchase a bike and accessories through a salary sacrifice scheme. The employee pays for the bike through monthly contributions that are taken from their payroll before tax – meaning that the availability costs are spread over time and are discounted through reduced tax payments. Yet there is limited evidence to show that this scheme is a success. In 2017, it was estimated that cycle sales

made through the scheme accounted for just 4 per cent of adult cycle sales across the UK despite most people in employment being eligible to use the scheme.[32] A 2016 survey suggested that most people who had participated in the scheme were either initially non-cyclists or occasional cyclists.[33] Whilst this scheme makes bicycles more financially attractive for people in employment, there are no incentives in place for people who are unemployed, self-employed or students. Low earners and employees from SMEs are often ineligible for the scheme either because their employers haven't registered or because it would mean their salary would be below minimum wage.[34] Local authorities also introduced schemes to support people with this cost by providing people with a bike to try for a monthly fee. Once the purchase cost is covered, people can keep the bike. This scheme supports people by spreading the cost of purchasing a bike over several months.

Providing affordable secure storage space

For many people, a lack of suitable and safe bike parking is a barrier to switching to cycling. In London, many people don't have space inside their homes to store a bike, and there is a shortage of secure bike parking on residential streets. Research from Fare City found that there are over 63,000 people on local authority waiting lists for secure hangar spaces and currently only 21,000 spaces in use.[35] This shortage doesn't affect all Londoners equally; in a TfL survey, 47 per cent of low-income individuals reported that having nowhere secure to store a bike at home was a barrier to them cycling.[36] Providing bike storage isn't directly a financial incentive, but some boroughs have subsidised secure bike storage space to remove this barrier.

The average cost of a cycle hangar space in London is £58 per year, which is lower than the average cost of car parking.[37] But for households of more than one person, the cost of parking multiple bikes can quickly add up to more than the price of space for a car. The cost of cycle parking space varies substantially across London. Boroughs with higher costs justify this with the argument that they are creating a financially sustainable scheme that will operate without any future capital boosts.

> *"What we are doing that I think a lot of other boroughs are not doing is we're trying to create a sinking fund for the replacement and renewal of these hangars. Something that's truly sustainable. My understanding of looking at other boroughs is that if you have a very low level of charge and it just pays for the administration, at some point you're going to have to replace all these bike hangars, you're going to need a fresh injection of capital."*
>
> **Council officer**

> *"We've got requests through the roof for these hangars. We would rather spend that money on making more spaces available for people than subsidising the ones that are there. "*
>
> **Council officer**

Whilst many of the local authority representatives interviewed admitted that the high cost of their cycle hangar spaces could be a barrier for Londoners on lower incomes, interviewees also highlighted the need to keep the cost relatively high to prevent "low-active" occupancy (i.e. having a bike parking space and not using it). Flexible management of cycle hangars, including a pay per month system and refund options, could be explored as an alternative way to address this low level of active occupancy.[38] London boroughs could look at building internal capacity to manage cycle hangars to increase efficiency and lower the costs.

Shared transport

Choosing to cycle does not necessarily entail availability costs. Hire bikes, such as TfL's cycle hire scheme, only charge per use. With Santander cycles, people can also choose to pay a monthly or annual fee, and can receive help with this from their employer. The subscription model can incentivise greater levels of cycling, as people want to feel they are getting their money's worth.

Car clubs allow members to hire cars for just a few hours or days, and the cars are often used for trips where alternative forms of transport are either unsuitable or unavailable. A survey of car club members in London by CoMoUK found that 43 per cent of respondents used a club car for journeys to carry bulky items, and 35 per cent used one for journeys with no public transport alternative.[39] Car clubs also don't incentivise frequent short journeys in the same way as owning a private car; most members in London use the service for five or fewer journeys each year.[40] Compared to personal ownership, car clubs can offer a cheaper alternative for accessing a car. Membership involves a monthly or annual subscription, with additional hire costs depending on the length of the journey. But many people aren't aware of the cost savings that they could make by swapping to car club membership. Furthermore, car club memberships can be used to financially incentivise people to give up their cars. In 2019/20, Camden trialled a "scrappage" scheme where residents were offered car club memberships in exchange for not renewing their residential parking permits. Whilst all 200 memberships were taken up, the long-term impact of the scheme is unknown.

Public transport

Using public transport in London is relatively expensive There are several ways that policymakers have reduced public transport fares in order to incentivise people to use it more. For example, the cap on Oyster and contactless payments over a week gives regular users more certainty about travel costs, making regular journeys such as commuting on public transport more attractive. Discounted travel can also act as a financial incentive. TfL offers a range of photocards for young people, students and people over 60 to make public transport cheaper. Census data reveals that at least 31 per cent of Londoners are eligible for free public transport either because they are younger than 10 years old or older than 65 years old.[41] But the number of eligible Londoners is likely to be much higher than 31 per cent as other concessionary schemes exist (e.g. Veterans Oyster Card, TfL staff and TfL "plus one" perk).[42]

Interviewees, especially those from outer London boroughs, mentioned the need to reduce fares to encourage more people to use public transport. But TfL is currently in a financial situation that makes it difficult to change fares. Furthermore, there is little clear evidence of modal shift with a marginal decrease in the cost of public transport fares. A report reviewing the effects of different measures to lower public transport fares found that these measures lead to new trips but don't encourage modal shift.[43]

Low-cost public transport passes

Between June and August of 2022, Germany trialled a ticket that gave unlimited regional rail travel for a cost of nine euros per month. The aim of this scheme was not only to make public transport cheaper for people to access, but also to combat a notoriously complicated ticketing system.

The scheme was predominantly perceived to be a success. It attracted more people to travel by rail, with 20 per cent of ticket purchases coming from entirely new customers and a further 27 per cent from existing customers who previously used public transport less than once a month. Whilst the pass did simplify the ticketing system, most customers stated that the low price was their reason for purchasing when surveyed by the VDV.[44] However, this was a more common response among existing customers (76 per cent) than new customers (56 per cent). Nonetheless, the nine-euro ticket was found to encourage a modal shift among customers, with one in 10 journeys using the pass replacing a car journey. As a result, the scheme was estimated to have prevented 1.8 million tonnes of CO2 emissions. But the increased demand on the rail network because of the scheme exposed issues such as overcrowding and delays in Germany's rail system.

The scheme was only ever intended to last three months, and despite its many successes, it was not extended. The flaws in the rail system exposed by the increased demand reinforced the need for more investment in Germany's rail infrastructure and so it was not possible to continue subsidising the low cost of the ticket. Instead, a 49 euros per month ticket was launched in spring 2023.

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Chapter 3
How can financial incentives be more effective?

In this chapter, we explore ways to boost the effectiveness of both existing and new financial incentives.

From standalone policies to policy packages

Transport policies have evolved over the past 30 years. Prior to 1997, transport policies were underpinned by a "predict and provide" approach focused on meeting growing transport demand and increased car usage.[45] But the transport strategy of Tony Blair's government shifted the focus away from car usage to a more complex set of objectives such as reducing pollution and congestion or boosting local economies.[46] In this context of increased complexity, transport policy experts started to make the case for "policy packages" rather than standalone policies. Policy packages are now acknowledged as being more efficient than standalone policies. A policy package was defined by the European Commissions as:

> *"a combination of policy measures designed to address one or more policy objectives, created in order* ***to improve the effectiveness*** *of the individual policy measures, and implemented while* ***minimizing possible unintended effects****, and/or* ***facilitating interventions****."*[47]

Improve effectiveness and feasibility

Prompting modal shift is challenging because it requires individuals to be both motivated and able to change their transport behaviours. This complex objective is easier to achieve when several policies are integrated together.

In the literature, three "types" of policy integration have been identified:[48]

- **Horizontal integration**: secondary policies are introduced at the same time to make alternatives to driving more attractive and affordable.
- **Vertical integration**: policies are introduced at different levels of government. For example, TfL can introduce road user charging whilst local authorities introduce financial incentives to encourage sustainable travel.
- **Chronological integration**: measures are introduced over time.

The first type of integration involves policymakers bundling complementary interventions to a primary measure. Complementary interventions can scale up the impacts by enabling more people to change their transport behaviours. For instance, integrating a measure that reduces the availability cost of bikes with a measure increasing the cost of driving can help to support people on low incomes to switch from driving to cycling.

Vertical integration is particularly relevant where power is devolved to different levels of government such as in the UK (see Table 1). For instance, local authorities can incentivise active travel whilst TfL disincentivises driving.

Chronological integration allows time for individuals to adapt their behaviours to the requested change. Chronological integration can also allow policymakers to build public support for a measure by gradually increasing the scale or reducing the number of exemptions.[49] For instance, a road charge can be introduced with many exemptions, then gradually these exemptions can be removed.

The integration of measures introducing financial incentives and disincentives can allow for cross-subsidy to fund non-revenue-generating infrastructure for activities such as walking and cycling. However, revenue

generated through taxes or the charging of drivers could be unreliable if the policy is successful in achieving modal shifts. This is one of the dilemmas that the government is currently facing with VED. The reliance on VED to maintain roads is a problem as the government will need to find other sources of income to replace the revenue lost due to fewer people owning cars. The situation is fairly similar for those London boroughs that rely on parking revenue to fund some of their schemes. However, this is not the case for many outer London boroughs, which aren't generating revenue through their parking fees.

Example of policy integration: increase fuel duty and lower bus fares

In our accompanying report, we explore the impact of different policy interventions on Londoners' travel costs. This example illustrates how integrated policies are more effective than standalone ones. Using the example of a family living in Havering and travelling to Bromley once a week, we looked at how increasing fuel duty would impact their travel costs and how integrating a complementary measure could be more effective.

- Peter, Zara and their children visit Zara's parents in Bromley every week. Driving from their home in Havering is less expensive than taking public transport.
- If the government were to double fuel duty, this family would see the price of driving increase by £1.10 per trip. But travelling by public transport will remain more expensive – this measure wouldn't incentivise the family to change their habits and take public transport.
- Furthermore, the policy of doubling fuel duty is likely to face significant opposition from the public which would impede further development.
- If this measure were introduced alongside a reduction in the bus fare so that it costs £1 instead of £1.75, it would reduce the price difference between using public transport and driving, but driving would remain cheaper.
- Whilst other dimensions such as public transport availability, convenience, time or reliability will determine the family's decision to use public transport, an increase in fuel duty isn't expected to lead to a modal shift for them. But introduced as part of a package, the measure is more likely to provide a financial incentive for the family to switch from private car to public transport.

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Increase public acceptability

Public support is critical to successfully implementing[50] a new policy, and research has found that public support is more easily obtained with the introduction of secondary measures.[51] Financial disincentives are more disruptive[52] than financial incentives. The latter are therefore more likely to gain public support than the former, which supports the case for introducing financial incentives alongside charges and taxes. Policymakers at all levels of government mentioned this approach to designing new charges or taxes.

> *"I think we've got a lot of examples of where that's proven to be correct. And it's not the only thing, and it's got to be part of a suite of measures because it's essentially, it's a stick a lot of the time. And to make sticks palatable, acceptable, you need some carrots, and you need some sort of compensation or mitigation or complementary measures."*
>
> **Transport planner**

The carrot and stick approach – or push and pull measures – is a useful framework for understanding financial incentives and disincentives.

> *"So from that perspective, that's what the clean air neighbourhoods are trying to do on the sort of stick approach. And on the carrot approach, we have a lot of work and I think one of the best in the country for incentivising use of bicycles."*
>
> **Local authority officer**

Smart road user charging in London

In 2022/23, the London Assembly Transport Committee launched an investigation into the future of road user charging.

We have explored in a previous report how single smart road user charging can be fairer and more efficient for Londoners than the current system of charging road users.[53] The ULEZ and the Congestion Charge do not address all the negative externalities of car use across the city, namely congestion across London and road accidents. A more efficient and fairer system would charge people in proportion to their contribution to these negative externalities. Currently, people driving less than 1 km are charged the same as those who drive 10 km if they happen to cross a boundary line, and those who drive for one minute inside the zone pay the same as those who drive within it for six hours.

This scheme is more likely to be accepted if other measures are introduced at the same time to make alternatives to driving affordable and attractive. Discounted rates and free mileage could be offered to ensure the new scheme doesn't burden people who must drive a car (e.g. for medical reasons or for their jobs).

Tailoring the design of smart road user charging to the objective(s) it's trying to achieve will be a key element of its success. When discussing the issue with the London Transport Committee, experts said that introducing smart road user charging involves striking a balance between attempting to deal with many objectives at once and focusing on fewer to make sure these (e.g. raising revenue, reducing congestion, air pollution or encouraging modal shifts) can be addressed successfully.[54]

For more information see policy paper 8 in part two of the report.

Address unintended consequences

Using travel costs as a lever to encourage modal shifts can disproportionately affect groups who are unable to afford to change their transport behaviours. Unintended consequences could either be "known" at the design phase or "unknown" and discovered only after the introduction of the policy.[55] An example of an unintended consequence of scrappage schemes – where people can replace their less efficient vehicles with less polluting ones – is that the cost of driving will decrease for individuals who access the scheme, which could lead to them driving more.

Unintended consequences can also include burdening people who are less able to pay. Mobilising financial incentives and considering exemptions or deductions when introducing a new policy can help to alleviate some of these consequences. An example of a measure introduced to offset fairness concerns about the ULEZ is the scrappage scheme. The idea of the scheme is based on recognition that some people aren't able to afford to change their vehicle to make it compliant, but don't have any alternative to driving.

Interviewees have mentioned the need to offer or facilitate the use of alternatives to private cars when introducing further disincentives to their use. This is the case behind the introduction of car clubs to ensure that people who need to use a car can still do so.

> *"So those things, they have to happen at the same time so that there's a kind of an incentive curve or line [...] but at the same time [isn't] sort of debilitating for some car users who need to use them for whatever reason."*
>
> **Local authority officer**

Engaging, communicating and aligning policy objectives

Effective communication strategy

Effective communication is the key to successfully bringing about behaviour change. Introducing financial incentives without telling people about them only leads to marginal behaviour change as people aren't aware of the incentives. Similarly, taxes and charges need to be introduced alongside communication strategies building on trust and involving people in the process. This in turn is likely to bring a higher level of public acceptability around the policy.[56]

Clear communication about new taxes, charges or subsidies will allow people to make informed decisions about the way they travel. They are more likely to dispose of their cars if they have a better understanding of how a new charge will affect them and the alternative options available. Effective communication is a two-way process consisting of getting the messages out, but also listening to people's concerns.

> *"People are informed and then can make the right choice based on their own personal circumstances, which I think is [a] really important part of the transparency that's needed around how we try and take the public with us on this kind of change."*
>
> **Local authority officer**

The timing and who is targeted by the communication strategy are equally important. Changing transport behaviours takes time, and communicating about a new measure in advance of its introduction can increase the scale of its impacts. Tailored communication can help with prioritising and reinforcing the messaging around a measure.

> *"And we have tried to take a very different approach this time, which is we will be communicating with everyone who is coming to buy a permit or renew a permit to say, if you continue to drive the vehicle you are currently driving, this is what's going to happen to your permit price over the next five years."*
>
> **Local authority officer**

It's also important to make it easier for people to find out about the cost of driving compared to other modes of transport.[57]

Clear objectives and alignment of policy objectives

Measures need to be associated with a clear objective that will determine the design of the financial incentives or disincentives to serve this objective (e.g. a parking tariff will be different depending on whether the local authority is using its parking strategy to encourage modal shifts or to raise revenue). This reflects opinions expressed by many experts on road user charging when discussing the subject with the London Assembly Transport Committee.[58] Interviewees emphasised the need to consider financial incentives as part of a broader strategy – this requires coordination and engagement between all the different actors.

Furthermore, as discussed in previous sections, transport policy in the UK is set out at different levels of government with different interests and political colours. Even within the same organisation, teams could have conflicting interests. But transport policy needs to be thought through in a systemic way by creating a common understanding and a greater alignment of all relevant policies. Stronger coordination between different transport providers and policymakers makes it easier to prioritise the right objectives.

Challenges to designing financial incentives

In our analysis, we also found barriers and constraints to designing better policies.

Lack of time and resources

Interviewees told us they lack resources and time to introduce new policy, resulting in some elements – such as communication about financial incentives – being overlooked. Local authorities find this especially hard as they already have to engage with members of the public about many other aspects.

> *"It's a constant battle to try to convince people, and it uses up a fair bit of time really, trying to do that work with comms and engagement colleagues, to try to generate the positive messages. It is something we want to do more of. But you are conflicted in time management."*
>
> **Local authority officer**

Technology

Recent developments in new technology can support the shift from private cars to more sustainable and active travel. But it can be hard to implement solutions which use new technology because potential users may be suspicious of it, and the costs can be high.

There are many ways in which technology can support more people to undertake active and sustainable travel:

- It can support data collection to better evaluate policy measures and build a deeper understanding of travel patterns.
- It can be used to create fairer and more effective financial incentives and disincentives (e.g. road user charging).
- It can be used to support multi-modal travel by making it easier for people to plan routes across different modes of transport without needing to switch between apps and by integrating payment mechanisms (e.g. MaaS).

Mobility as a Service

MaaS is a digital transport service that allows people to obtain real-time information about a range of transport options including shared transport. In addition, this service provides integrated payment mechanisms across a range of transport providers. MaaS has gained a lot of attention recently due to a diversification of transport options in urban areas. Future urban mobility is predicted to be more flexible and responsive to people's needs. MaaS platforms will offer this seamless mobility.

But there are many challenges to introducing this new technology. The integration of the payment mechanisms and real-time information requires public and private service providers to share their data, and this can be seen as risky. In the UK, the West Midlands region has worked with the Helsinki-based company Whim to introduce MaaS. Whim offers unlimited travel options with a monthly subscription (e.g. unlimited use of public transport and taxis within a certain radius of the user's location). This advantageous pricing structure can be explained by the need for MaaS providers to extend their business base and attract transport providers.[59]

Coordination and political will

A broad strategy can only be set out if all the actors work closely together, but in our interviews, we found that within some local authorities not all the policy instruments are considered to be relevant in encouraging active and sustainable travel. For example, parking enforcement sits in a separate team to transport planners, and this setup can mean that parking is neglected as part of the sustainable transport strategy.

The effectiveness of transport strategy is dependent on the political appetite for influencing behaviour change at all levels of government. In our interviews, political will was cited as one of the main blocks to introducing new transport policies to encourage active and sustainable travel. Furthermore, harmful existing measures can remain as they are seen as too politically risky to remove. This is the case for the fuel duty rates that have been frozen since 2011. Meanwhile, rail fares have increased year on year. Whilst recent cost-of-living measures saw the Treasury extending a five pence per litre cut to fuel duty,[60] rail fares were increased by 5.9 per cent. The rail fare increase was 6.4 percentage points less than the Retail Price Index (RPI) figure that increases are typically based on, but it still represents the highest rise in a decade.[61] There is an opportunity for national government to align its approaches to the financial measures affecting transport in a way that could better encourage sustainable and active travel choices. But it will require more cross-departmental collaboration and ambition to change the status quo.

> *"It's about political will [...] Permit price changes is how far and how fast they're prepared to go with this."*
>
> **Local authority officer**

Amongst the interviewees there was a strong sense there is a need for political leaders to fully embrace and acknowledge the need for modal shifts in order for policy to be successful.

> *"It is all about leadership and it's all about political leadership and which is why when I see conferences on sustainable travel and all the rest of it, I'm like, don't, it's not me that needs to go to this stuff. It's not officers. It's actually political leaders that need to go to these things to understand it, why you need to do that."*
>
> **Local authority officer**

Conclusion

Financial incentives are useful policy levers to encourage active and sustainable travel. In London, there are already many in place which make driving and owning a car quite expensive. Moreover, national government, local authorities and TfL have introduced financial incentives to positively reward people using active travel and public transport, making those modes of transport attractive. Our research found that policy packages are more effective than standalone policies. Whilst there is widespread acknowledgement amongst policymakers (and academics) that policy packages are more effective, they aren't always easy to implement. We formulated some recommendations to improve the effectiveness of financial incentives and we set out some practical changes to the current landscape of financial incentives. In the second part of this report, we explore the travel costs Londoners face and evaluate the effects of financial incentives on typical Londoners.

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We are London's independent think tank. We are uniquely dedicated to developing new solutions to our city's challenges, for the benefit of all its people. We help policymakers and city leaders think for the long term about London's biggest issues and plan for a better future. We do this through:

Research and evidence: conducting robust, unbiased research and analysis, and collaborating with Londoners and stakeholders across all sectors, to generate new ideas and recommendations.

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Awareness raising and advocacy: being an authoritative policy voice on London and promoting our research and ideas to those with the power to act on them – from the grassroots to London's and the nation's leaders – through briefings, publications, social media, press and events.