

## Driving change in the bus market: lessons from London

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### Introduction

In 1984, in the Buses White Paper, the Government declared:

*“Without the dead hand of restrictive regulation, fares could be reduced now on many bus routes and the operator would still make a profit. New and better services would be provided. More people would travel. [...] bus operators will look keenly to see where and when people want to travel. If one operator fails to provide a service that is wanted, another will.”*

*(Department of Transport, 1984, paras 1.4 -1.6)*

It hasn't turned out quite like that! In real terms, fares have risen, not fallen, and fewer people are travelling by bus each year. Ridership per person has fallen by an average of over 1% each year in the nine-year period since 2009/10. Fares have risen by an average of around 2% each year above the Consumer Price Index (CPI).<sup>1</sup> Whether 'new and better services' have been provided is a moot point, since bus vehicle quality would have increased anyway, and there would have been periodic reviews of services.

Why does this matter? Why shouldn't we let bus travel fade away in response to the growth of services such as Uber and Lyft? There are at least two reasons to be concerned if this happens. First, the decline in services and their increased cost makes it more difficult for people to travel to work and to access services, particularly hitting those on low incomes with limited or no access to a car. Bus travel is still by far the most commonly used and cheapest form of public transport. Outside the London commuter area, travelling to work by bus is up to 10 times more common than rail commuting, and around 10% of people in major conurbations rely on the bus for getting to work (Department for Transport, 2018). Second, a reasonably full bus creates far less pollution and congestion than personalised transport does, something that society is becoming increasingly and keenly aware of.

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<sup>1</sup> All data referred to in this paragraph have been sourced from various tables produced by the Department for Transport. They all refer to England, since bus transport is a devolved matter and the Welsh and Scottish statistical agencies do not collect figures in a comparable manner.

In this paper, I will assess the nature of bus market failures and then consider some solutions, focusing on the larger urban bus markets. There are four main potential market failures in this context. The first is the classic one: unpriced, or under-priced, congestion and emissions externalities created by travellers, which vary by travel mode. The second is public transport-specific: insufficient incentives for private operators to create interconnections with rivals. The third is monopoly, and the presence of sunk costs. Finally, in the context of significant inequalities in incomes, those on low incomes cannot express their preferences as forcibly as those on high incomes via the market mechanism.

## Market failures

Since the first market failure is well-known and widely rehearsed, we'll deal with it very briefly. In deciding to travel by private transport, I recognise that there may be delays due to congestion. But I do not naturally recognise the congestion I cause to others, or take much account of the pollution I create. Uber, in pricing my ride, also fails to take these things into account. However, various complementary interventions, such as Road User Charges or congestion charges, have the potential to do so.

The second market failure interacts to some extent with the third and deserves to be considered much more fully. Faced with on-road competition, the main competitive weapons at a bus company's disposal are frequency and fares. Some customers will be attracted to a cheaper bus company's services. However, if that company runs a less frequent service, and tickets are not interchangeable, there is clearly a trade-off for the customer between waiting longer on average for the cheap service and catching the first bus. This form of competition commonly leads to situations where the more frequent service is more fully loaded, and eventually drives the other service out of that particular market.

Manchester's Oxford/ Wilmslow Road services provide a case in point. This is perhaps the busiest route in Britain, with healthy all-day demand from students and others travelling from the Fallowfield campus, rented accommodation and also the Didsbury area, into Manchester or university sites south of the city centre. Various companies have operated in competition with the main provider, Stagecoach, over the years, but most have departed after a short period of essentially ruinous competition against Stagecoach's "fighting brand", Magic Bus. Previous competition on this route has been described as "chaotic" to the 2006 Parliamentary Select Committee on Transport (Department for Transport, 2006).

It is instructive to compare the situation with competition between airlines, specifically Ryanair and Easyjet, the two largest price-focussed companies serving the UK. Both have extensive networks but seldom compete head-to-head with each other, preferring to base themselves at different airports in the UK.

It is also interesting to note the nature of respective sunk costs in the industries. The model of competition presumed in the quote from the 1984 White Paper is one in which markets are contestable. However, this is a dubious assumption. Airlines mostly (and low-cost airlines exclusively) serve point-to-point routes not networks. They will often experiment with alternative routes to those where they have difficulty maintaining capacity, but then appear to be able to grow custom quickly. Hence, although often the aircraft themselves incorporate a significant level of sunk cost, that cost is sunk to the

company, not the route. In buses also, the company's buses and other facilities incorporate a sunk cost element, but the more important aspect is that it can take an appreciable amount of time when a new route comes into operation before it attracts sufficient custom to be sustainable - a major bus company suggested up to two years (Competition Commission, 2011, para. 9.11).

The consequence of these forces is that bus companies tend to develop "territories" in which they are the sole or main operator, respecting other companies' territories in another location. Clearly, within these territories, a company can exercise a degree of market power in the form of latitude in determining fares and frequencies. On occasion, they have demonstrated a clear reluctance to participate in or facilitate local inter-operator ticketing arrangements. For example, in the West Midlands, the local committee determining such arrangements had a majority of voting rights allocated to the dominant area operator, National Express, meaning that it could block changes it disliked (Competition Commission, 2011, para. 9.121). In some other cases, the territory can be reinforced by a dominant operator controlling access to a key facility, such as a bus station.<sup>2</sup>

A further consequence is that there may be few services crossing boundaries between territories, despite potential customer demand for such journeys, resulting from the risk of conflict over territory. Greater Manchester provides an example where the south of the area is dominated by Stagecoach, whilst First and Go-Ahead (which purchased some routes from First) are dominant to the north. Cross-city travel by bus is hindered as a result.

Finally, once territories are occupied, even a substandard operator may be difficult to supplant, given the costs of building up a network relative to benefits sufficient to prove attractive to replace the incumbent. There have been changes in the past, but these have mostly taken the form of one company selling a bundle of routes and facilities (garages etc.) to another. Gradual incursion is a difficult strategy to pursue.

To summarise, the White Paper made two key assumptions that turned out to be false, or at best misleading. One is that consumers switch bus companies rapidly in response to competition differentials, such as fares and route variations.<sup>3</sup> The other is that network, sunk cost and interconnection effects are unimportant.

Policymakers are well aware that something needs to be done. All the main political parties including the SNP acknowledge the importance of bus travel and bus-rail interconnection in their 2019 manifestos, and the potential for improved bus services to reduce congestion and pollution. The solutions they propose, however, differ. Labour have pledged to regulate or bring buses into public ownership, the Liberal Democrats have promised to give councils powers to commission and regulate buses, while the Conservatives have promised support for local authorities who want to create franchised services or increase coordination in their areas. In actuality, different areas of the UK require different solutions to enable their bus networks to thrive.

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<sup>2</sup> The Competition Commission report proposed remedies in such cases (see paras 15.11 and 15.222), but arguably these had limited effect overall.

<sup>3</sup> Interestingly, of course, the same assumption was made in respect of supply competition in energy markets.

## Franchising as a potential solution

Whilst the rest of Britain's bus services were privatised, the strategy for London was quite different. In fact, the plan for London broadly followed a model common across Western Europe and beyond. In most cities in France, Germany, Italy, etc., the local bus service is procured through competitive tender from suitably qualified operators. The mechanisms differ a great deal in detail, but the underlying idea is clear - in order to gain the benefits of coordination and interconnection amongst services, it is best to have a single operating entity. Therefore, competition for, rather than in, the market is an appropriate means of securing this. The idea is familiar in Britain of course through competition for rail franchises, though these are arguably more problematic.

However, details matter: Certain key issues need to be determined in designing almost every procurement competition (Williamson 1979; see also Iossa and Waterson, 2019). Firms bidding will need to make potentially significant investments in the course of the contract. Badly designed, this may lead to the only plausible bidder the second time around being the company that won the first time. Hence, whilst at the start of the competition, very competitive bids will be received, later this will not be true. Indeed, the more likely it seems that the contract will continue with the initial incumbent, the keener the offers to secure that initial contract will be. This implies that the two key interlinked issues to be determined are the length of the contract and the ownership of long-lived assets (for example, in the bus case, garages). There are no general answers to this.

There is a third issue - potentially present in all procurement exercises - the need to avoid collusion amongst bidders. Collusion can take the form either of declining to bid for some lots, in exchange for other companies' agreement not to bid for the lots a particular firm is interested in, or putting in bids that are designed not to win, in an attempt to falsely simulate the presence of competition at the outset. This danger is particularly present when only a small number of companies in total are equipped to supply the services as designed, which appears to be the case in French bus transport.

Two particular factors are important in transport competitions (and probably many others). One is whether to introduce some form of competition by breaking the entity up into parts which are bid for separately, whilst the other is whether to offer the lots at the same time or stagger the competitions (Iossa et al., 2019).

## Bus travel in London

Either by accident or design, bus competition in London incorporates comprehensive solutions to these issues. Invisible to most passengers, there are seven major operators of buses in London, plus some smaller operators. In fact, bus tenders are offered on a route-by-route basis, in a calendar of "tranches" (Iossa and Waterson, 2019).

Transport for London (TfL) organises these tender competitions and specifies the route, frequency, vehicle quality and service quality. Operators bid for the contracts, and they are asked to provide a schedule to deliver the level of service specified, and their tender price for providing the service to this specification. All tenders are submitted on a sealed bid basis with all the relevant information for the evaluation.

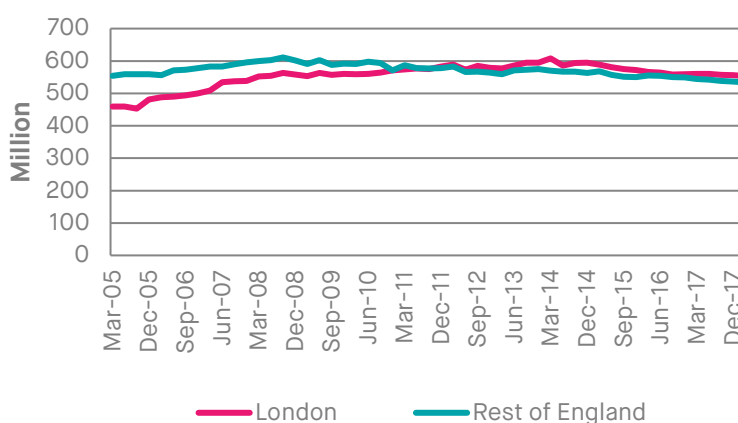
Almost all the routes operate on gross cost sealed-bid contracts lasting five years, with possible extensions to seven years, subject to performance. TfL has a continuous

programme of tendering throughout the year. Contracts are put out to tender every two to three weeks, on a rotating basis. The rate of tendering is about 15% to 20% of London’s bus network each year. The size of route tendered could be very different, with Peak Vehicle Requirements (PVR) ranging from 1 to over 50. The choice of routes tendered on a particular date is not random. Routes in a similar area of London are often issued together. Operators are free to suggest alternatives which vary the service, alongside fully compliant bids, and a common feature is that they submit package bids covering more than one route. TfL normally choose the tenderer with the lowest gross cost, and if they do not, they will say why. The bid itself is a fixed number of pounds required to provide the service for the first year. The contract commences some months after the award is announced, because the winner may need to acquire buses and drivers to fulfil the contract.<sup>4</sup>

TfL sets fares and retains the revenue through a centralised system. The gross bid price quoted is subject to a formula-driven annual increase over the life of the contract incorporating an efficiency element. The formula is based on a few key cost elements. Fares are paid using contactless cards, so the driver does not need to handle cash. In addition, there are quality payments that could go in either direction, to penalise poor performance or reward performance above par. If the service quality provided by the operator is significantly lower than the requirement, then the payment should be from the operator and vice versa.

The London bus market is a huge market. According to the Department for Transport, in the year ending in March 2017, there were around 10,200 buses in use and a total of 2.24 billion bus passenger journeys were made in London. This amounted to more than half of the 4.44 billion passenger journeys made by local bus in England in 2016/17. Every weekday over 7,700 scheduled buses run on 675 different routes, with over 120 of those routes run 24 hours a day, seven days a week (Transport for London, 2015). Figure 1 and Table 1 illustrate this.

**Figure 1: Local bus passenger journeys in London and the rest of England**



Source: Quarterly data from Department for Transport

<sup>4</sup> For the most part, the winning operator is required to buy or lease their buses as well as procuring the maintenance facilities

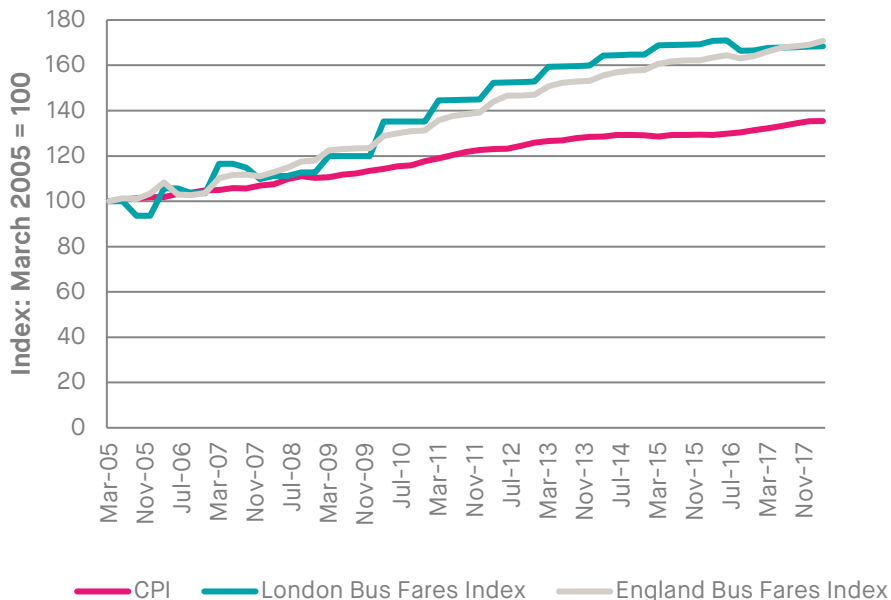
**Table 1: Some statistics concerning the London bus market**

Year	2013/14	2014/15	2015/16	2016/17	2017/18
Kilometres operated (millions)	491	489	492	495	490
Schedule operated (percent)	97.7	97.1	97.2	97.4	98.1
Excess wait time (minutes)	1.0	1.1	1.2	1.1	1.0
Customer satisfaction (score)	83	85	86	86	86

Source: Data from TfL annual report, excess wait time only relates to routes styled "high frequency".

From March 2005 to March 2018, local bus fares in London have increased by 68.4%, much higher than CPI over the same period. The English bus fares index has been rising steadily at almost the same speed over the years. However, it is important to note that the operators of buses within the TfL area do not rely on farebox revenue directly; a distinct contrast with buses outside London.

**Figure 2: Local bus fares index**



Source: Quarterly data from Department for Transport

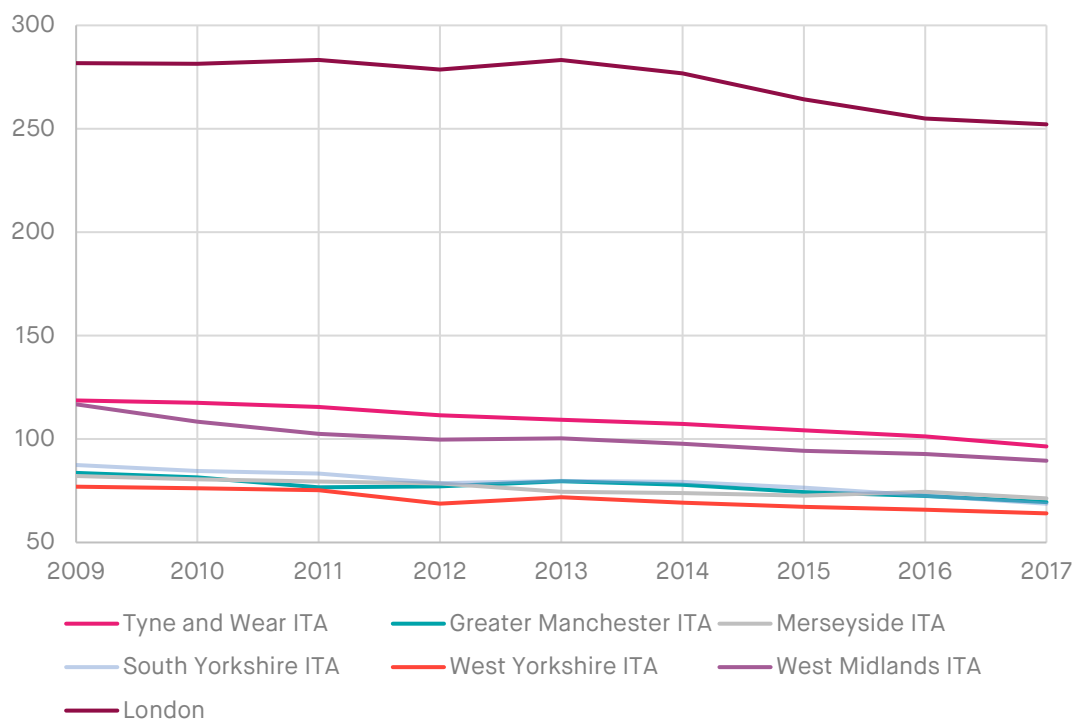
Studying the outcomes of the London franchising system, it has been successful in maintaining competition over time, thus avoiding the problem of firms becoming entrenched in their particular services. Iossa and Waterson (2019) examined 400 routes which had been tendered twice over the period since 2003 under essentially unchanged conditions, finding there were around three bids per route on each occasion, with achieved prices per mile unchanged in real terms (although rising slightly compared with a CPI – X index used for annual updates). Depending on the precise definition of “same firm”, between one half and three quarters of the routes are re-let to the same firm the second time.

Waterson and Xie (2019) have tested various possible indicators of collusion or coordination amongst companies in London and found essentially no evidence consistent with this. There is clear evidence that firms with garage locations nearest to particular routes are related to the garage owner operating that route. However, the causal chain is unclear, with many counterexamples. As well as the large size of the London market offering opportunities for seven significant operators to compete in the market, the fact that there are also almost 100 garages spread throughout the Greater London area means that normally, several operators can plausibly offer an efficient service on any particular route.

### Metropolitan areas

The Greater Manchester system is of course smaller than London’s, and in fact it is proportionately significantly smaller, as figure 3 shows. London is a complete outlier amongst metropolitan areas in terms of bus journeys per head, whereas Manchester appears towards the bottom of the group.

**Figure 3: Bus journeys per head across metropolitan areas of England**



Source: Department for Transport data. Note: ITA = Integrated Transport Authority



Obviously, there are many factors at work, and it should be noted that all metropolitan areas are experiencing a decline, but there is at least a possibility that London's commanding position is positively linked to the franchise mode of organisation, along with its congestion charge.

There are signs that Manchester has taken on board several of the positive lessons from London's experience in designing the franchise competition, which is out for consultation at the time of writing. Current proposals (Greater Manchester Combined Authority, 2019) envisage three areas to be let on a staggered basis. However, rather than route-by-route contracts, there are planned to be 10 large franchises for a five-year period<sup>5</sup> (a bundle with over 34 buses as a peak service requirement) and 25 small franchises (for three to five-year terms) in the first round. Consistent with London, winners will provide buses, maintenance and crews.<sup>6</sup> One thing that is unclear is whether successful franchisees will use existing depots or whether these will be provided, but there is probably more scope for obtaining spare land at reasonable cost in Manchester than there is in London.

What will be interesting is whether the anticipated uplift to bus usage is confirmed, and in the longer term, whether competition can be maintained in subsequent rounds to the extent it is in London. Early signs that Manchester is making a success of franchising will be likely to lead to other Metropolitan areas developing their own plans and perhaps to other areas deciding to gain permission to take this route.

In this context, it should not be forgotten that most, if not all areas have some experience in franchising, because they choose to exercise their freedom to subsidise certain routes (or certain periods in the week, such as Sundays or weekday evenings) by means of securing tenders for these. This might amount to 10% of vehicle mileage in an area. Here it is important to note that experience varies widely, since some areas manage to get four or five tenders for each lot (commonly from smaller companies) whereas others attract only a single bidder. Two factors are found to be important here. The first is whether the operator carries revenue risk (companies primarily serving the contract market are often wary of this) or whether the contract is gross cost in nature. The second is whether the tendering process is a standard one (as might be used by a local authority in buying various other services) or is tailored to bus contracts and evaluated by people used to doing this evaluation. Willingness by local authorities to engage in companies' often useful suggestions during the bidding process can result in more appropriate timetables etc. that offer cost savings (Competition Commission, 2011 paras. 13.73 to 13.89).

### **Non-metropolitan areas**

In non-metropolitan areas, there is no automatic right to develop franchising schemes under the Bus Services Act 2017. The metric of journeys per person varies significantly from city to city. Figure 4 illustrates with some examples.

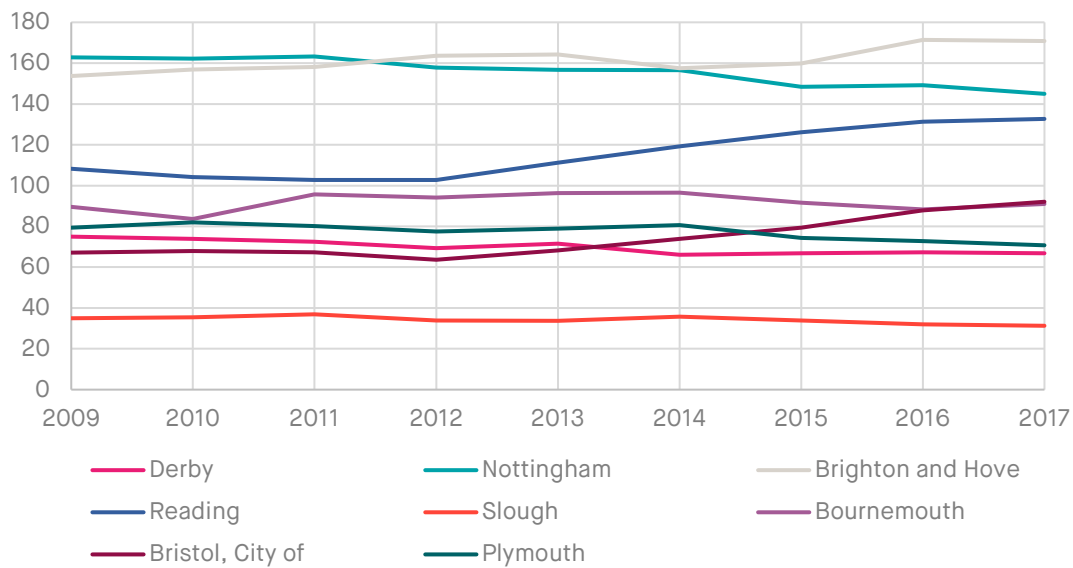
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<sup>5</sup> Extendable to seven years in some cases.

<sup>6</sup> There is an ambiguity in London relating to the "New Routemaster", which is unique to London and markedly more expensive than buses available from other providers, in addition to having a largely, and now completely, redundant third door. Franchisees have been reluctant to take the risk of purchasing these and mechanisms are needed to reduce residual risk for bidders, unlike alternative two-door models. Ultimately, in retrospect it would be reasonable to describe their introduction as misconceived.



**Figure 4: Bus passenger journeys per head in selected city areas**



Source: Department for Transport figures

It is instructive to compare, for example, Nottingham with Derby. Despite Nottingham having a tram network in addition to local buses, bus usage per head is double that of its neighbour. No doubt there are many reasons,<sup>7</sup> but it is worth pointing out that Nottingham buses are still majority owned by the city council, which may influence its objectives. Another contrast between a municipally owned service and fully commercially run services is provided in looking at Reading versus Slough. Indeed, Reading is one of the few areas where bus use per person is growing, and it has introduced several innovative elements. In this context, it is somewhat odd that the Bus Services Act rules out municipalities developing companies to operate their own services, subject to appropriate commercial challenge.<sup>8</sup>

At the same time, there are successful examples where commercial services have been able to expand the market. The prize goes to Brighton, where bus ridership approaches London levels. Brighton, along with Bristol (also operated by commercial operators) and Reading, are likely to provide useful lessons for other areas to follow, without necessarily needing to develop franchising schemes (indeed, the smaller the centre, the less easy it would be to retain competition for the market in designing a franchising competition). And of course, the fuller on average a bus is, the lower the pollution and congestion costs per person, so a movement from private transport to bus reduces pollution overall.

Finally, turning to less densely populated areas, particularly rural counties, ridership is very low for the most part.<sup>9</sup> On the one hand, there are few benefits to coordination in cases where most traffic is going into, or from, local centres, rather than travelling around them, so on-road competition does not suffer from many of the problems identified earlier.

<sup>7</sup> Nottingham city provides enough of a commercial draw for the council to be able to charge business car parks in the centre on a per-space basis for using their own car parks.

<sup>8</sup> For completeness, not all municipally owned services behave well. Cardiff Bus essentially predatorily drove out a competitor in the early 2000s.

<sup>9</sup> Rutland has around three passenger journeys per person per year!

On the other hand, revenue-earning opportunities are commonly thin, such that a subsidy is required to maintain a half-decent service. Traditional franchising of supported services, as already exists, is likely to be most appropriate in this circumstance, so long as it is carried out wisely.

### **More far-reaching policies**

London benefits from its central city congestion charge and the ultra-low emission zone. Congestion charging, if and when it arrives more widely, has significant potential to encourage a modal shift towards bus transport, and it is clear that the Government will need to consider means of replacing the revenue coming from duties on conventional fuels as the shift towards electric vehicles gathers pace (and they of course, continue to be responsible for congestion). Of course, where franchising or public ownership is adopted it is much easier to impose anti-pollution standards. As an example, all buses in Verona run on natural gas, not diesel fuel.

A very different issue concerns reimbursement for employees' travelling expenses. German law includes the Travel Expenses Act (various years) which will not reimburse expense-paid travel by taxi on public business, and German federally funded institutions insist travel should only take place on public transport (except after 11pm), with unfamiliarity in the area not being a legitimate justification for taking a taxi. Such a policy, if introduced in Britain (as regards at least to travel on the public purse), would lead to some modal shift. Radical moves such as this should be considered in Britain.

Thus, although Manchester's scheme acknowledges that franchising may provide only a relatively short-term (say five-year) boost to ridership, there may be forces in the offing, and lessons from areas where public transport is growing in importance, including European cities, that can reverse the long-term gradual decline in bus use, reduce congestion, aid transport integration and hence ease travel to work.

While it is encouraging to see all the main political parties pledging improvements to bus travel, the next government will need to think carefully about how to manage changes to and investment in UK bus networks. The challenge for policymakers is that one size certainly does not fit all. Franchising may well be the way forward in densely populated areas, while public ownership or subsidised direction is likely to be essential to preserve and enhance bus networks in more rural locations. It will be by paying serious attention to best practice across the country and understanding local needs that the government can start to upgrade UK bus services and improve many people's working lives.

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## ABOUT THE AUTHOR

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