GLAECONOMICS

Retail in London: Working Paper I
Service and delivery issues

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GLA Economics provides expert advice and analysis on London's economy and the economic issues facing the capital. Data and analysis from GLA Economics form a basis for the policy and investment decisions facing the Mayor of London and the GLA group. The unit is funded by the Greater London Authority, Transport for London and the London Development Agency.

Contents

Executive summary

This thread of the GLA Economics' retail study looks at delivery and service trips to London's retailers, focusing on the key issues of parking, delivery curfews and congestion. The reasons for examining service and delivery to retailers are to provide some understanding of these issues and to identify potential ways to improve the process and efficiency.

Types of delivery and service trips

Delivery and service trips to London retailers should be recognised as essential if London's retail sector is to operate effectively, ensuring goods are available to consumers. It is also important to place these trips in the context of the overall logistics supply chain. Retailers and logistics operators both have an interest in running deliveries in an economically efficient manner. Therefore, some caution and consideration is required if policy changes alter the current pattern of activity.

In London, retail-related trips account for approximately 10 to 15 per cent of trips for both Heavy Goods Vehicles (HGVs) and Light Goods Vehicles (LGVs). However, these trips are not homogenous. They occur throughout the day, across a range of different-sized vehicles and for many different purposes.

The key delivery trips for retailers are those that deliver core goods to their retail premises. However, there are numerous types of other trips, including collections or transfers of goods, money trips, waste and postal collections, and home deliveries. Examples of service trips include general cleaning and the servicing of computer equipment, cash registers, security and fire alarms, lifts and escalators, and air conditioners.

Trends in freight traffic in London

One key trend for freight traffic in London over the past two decades has been a reduction in HGV traffic. The number of HGVs crossing the Inner London and Central London boundary cordons has halved in the past 20 to 25 years, while the number crossing the Outer London boundary cordon has also declined, albeit to a lesser extent.

In contrast, the amount of LGV traffic in London has increased substantially over the same period, with the amount of vehicles crossing the Outer cordon doubling between 1980 and 2001. There has also been a large increase in LGVs in Inner London, although this has stagnated in Central London over the past decade.

Delivery and service in London is generally regarded as a more difficult operation than it is elsewhere in the United Kingdom (UK). Many of the reasons for this stem from the high density of development in London. For example, the tighter street pattern encourages greater use of smaller vehicles, and the higher congestion slows down deliveries. Additionally, the high cost of land means there are few off-road delivery bays

so most deliveries are made on-street, while limited storage space in retail premises means deliveries are more frequent.

In GLA Economics' discussions with retailers and logistics operators, three key issues were repeatedly raised with regards to delivery and service in London: delivery-hour restrictions, parking and road congestion.

Delivery restrictions

Delivery restrictions include curfews imposed on retailers by boroughs preventing night and early-morning deliveries. The London Lorry Control Scheme (LLCS) then limits the route movements of HGVs at night and at weekends. Many retailers and logistics operators view controls as overly restrictive. They believe that these measures have not been updated to meet the needs of London's bustling economy. This is particularly an issue for large retailers and for those involved in selling perishable goods, who want early-morning deliveries so they can fully stock their outlets ahead of opening.

When considering reducing delivery restrictions, policymakers need to weigh up the possible economic, greenhouse gas and air pollution benefits against the negative noise pollution, which is the main reason for the existence of curfews. An objective and independent review would assess the level to which the differences in local circumstances justify the widespread variability of delivery curfews. Such a detailed review is outside the scope of this paper. However, there may be benefits if guidance on planning conditions and agreements on delivery hours and operational practices that cannot be covered by planning conditions are issued. This guidance would be an incentive to retailers and logistics operators to take up quieter technologies and good practices.

Parking issues

The chance of being issued with a penalty charge notice (PCN) for illegal parking is much higher in London than elsewhere in the UK. Delivery operators believe that in many cases PCNs are incorrectly issued while legitimate loading and unloading is taking place. There is also a general lack of loading bays for them to carry out their business, and a lack of consistency across boroughs in their parking restrictions. Many operators feel that the essential nature of their trips is not recognised, and that they are specifically targeted with PCNs.

There may be scope for greater guidance, by national or regional government, on the appropriate design and amount of infrastructure required by freight operators, for example, the amount of loading bays required for different types of retail streets. In addition to this guidance, there would be certain benefits from more consistent parking regulations and enforcement across different boroughs.

For service vehicles (as compared specifically to delivery vehicles), the problems of parking in London are even more striking. As they do not load or unload, and may need to park in one place for a substantial length of time, the range of possible parking spaces is much more limited. However, parking a substantial distance from the premises

can be impractical due to the heavy equipment they need to do their job. For these reasons, it can be extremely difficult for service vehicles to park legally. More thought and research is clearly needed on the provision of suitable parking for service vehicles.

Road congestion

Congestion in London is worse than elsewhere in the UK as it has a more dense level of development, which means demand for the limited road space is high. While both retailers and logistics operators regard congestion as a significant problem, it is less clear if they would agree on methods to improve the situation. From the point of view of logistics operators, any measures that reduce the numbers of cars on London's roads would be beneficial. Retailers, however, are concerned by the possible loss of business from car-using shoppers. Avoiding congestion through more night-time or early-morning deliveries is one method that both may welcome, although residents may not agree.

Future freight policy

In terms of future policy and implementation, Transport for London (TfL) is working with stakeholders to develop a London Freight Plan (LFP). To this end, in May 2005 TfL released a strategic choices paper to the London Sustainable Distribution Partnership for consultation. The LFP's overarching objective is to balance the economic, social and environmental impacts of freight London-wide. It also aims to:

- make the delivery and service sector more reliable, efficient and secure
- create structures and processes to spread best practice and champion freight in London
- include freight and service as a key part of the planning process for decisions about how London is developed.

Once completed, the LFP will clearly be an important document in terms of addressing the needs of delivery and service vehicles in London, including those serving the retail sector.

TfL is already implementing a number of policy initiatives across London. These include the creation of freight quality partnerships and the provision of freight delivery information in the TfL Journey Planner.[1] Fuller details of LFP policy initiatives are available on the TfL website.[2]

TfL is also considering plans to introduce a Low Emission Zone (LEZ) for Greater London, which will have a direct effect on logistics operators. The LEZ would meet European and national nitrogen dioxide and particulate matter emissions standards. Implementation is planned from 2008. Retailers or logistics operators whose vehicles do

[1] View: http://journeyplanner.tfl.gov.uk
[2] View TfL's Report library: www.tfl.gov.uk/tfl/initiatives-projects/freight/report.shtml

not meet the required standards would need to pay the financial costs of updating their vehicles, or pay a charge for each trip into London or within London.

1. Introduction

This paper forms part of the wider GLA Economics retail study. The reasons for examining the issue of service and delivery for retailers are to provide some understanding of the issues involved and to identify ways to improve the process and efficiency.

Service and delivery for retailers involves the delivery of goods and services to retail premises, for example, the delivery of goods for resale, or of someone to repair a broken window.

In terms of goods, delivery to retail outlets is only one part of a much larger supply chain, which sees goods moved, stored and handled on route from their initial manufacturers or farmers to their eventual destinations. The retail logistics industry processes and organises warehousing, handling and transportation through the entire supply chain. It refers to the transportation aspect as freight transportation.

Freight transportation and the movement of service vehicles need to be considered in the context of the possibilities and constraints of London's transport infrastructure. This report examines the role of retail service and delivery within the wider context of London's transport system and regulations.

Chapter 1 provides a statistical overview of freight transport in London, focusing on goods-vehicle usage and the significance of retail-related trips. When considering ways to improve the transport environment to aid goods deliveries, it is important that policymakers understand the impacts and scale of the existing operations.

However, as described, delivery trips are just one part of the wider logistics operations of retailers. Policymakers also need to understand the wider processes and impacts of retail logistics to place relevant issues in their proper context. The trends and forces within the retail logistics sector are discussed in Chapter 2. Chapter 3 goes on to consider specific types of delivery that are made to London's retailers. In doing so, it shows that the issue of delivery and service to retailers within London is extremely complex, with many different types of trips occurring.

Chapters 4, 5 and 6 then focus specifically on the three greatest problems relating to delivery and service trips in London. Chapter 4 investigates the restrictions upon timing of deliveries. Chapter 5 investigates the issue of parking and loading regulation and enforcement, while Chapter 6 considers the issue of congestion, including the effect of the congestion charge.

Finally, Chapter 7 summarises current policy initiatives related to improving conditions for delivery and service journeys, such as freight quality partnerships and improved provision of traffic information. It also highlights the freight strategy that TfL is currently assembling, which will be extremely important in determining how policy is developed on many of the issues raised in this report.

In compiling this report, GLA Economics studied the academic literature and collated and analysed relevant data. Additionally, GLA Economics contacted retailers and logistics operators for their views and held a number of meetings to discuss the subject with them.

2. Statistical overview of freight transport

Introduction

The movement of freight is an essential activity in London's economy. It is, therefore, important that the trends in vehicle journeys are observed and understood when developing policy in this area. This chapter considers the available data to give an overview of freight movements in London and the UK, and in particular those relating to the retail industry. Knowledge of the aggregate movements is necessary to understand the role of goods vehicles in terms of the overall transport system and in building appropriate policy.

Types of goods vehicles

There are a number of different types of goods vehicles which carry freight:

- **Light Goods Vehicles (LGVs)** are van-type vehicles of less than 3.5 tonnes maximum gross vehicle weight. LGVs can be operated on a car driving licence.

- **Medium Goods Vehicles (MGVs)** are those of between 3.5 and 7.5 tonnes maximum gross vehicle weight. They can also be operated on a car driving licence but also require an operator's licence.

- **Heavy Goods Vehicles (HGVs)** are those of over 7.5 tonnes maximum gross vehicle weight. These include vehicles with six or more tyres, and some four-wheeled vehicles with extra-large bodies and larger rear tyres. HGVs require both an operator's licence and an HGV licence.

The movement of freight is largely a private sector activity, with operators ranging from multinational logistics companies to owner–drivers of single vehicles.

Trends in freight traffic

Statistics on freight traffic focus on movements of HGVs, MGVs and LGVs. The majority of the HGV and MGV traffic is for the delivery (and collection) of goods. LGV traffic, however, includes service trips as well as delivery trips.

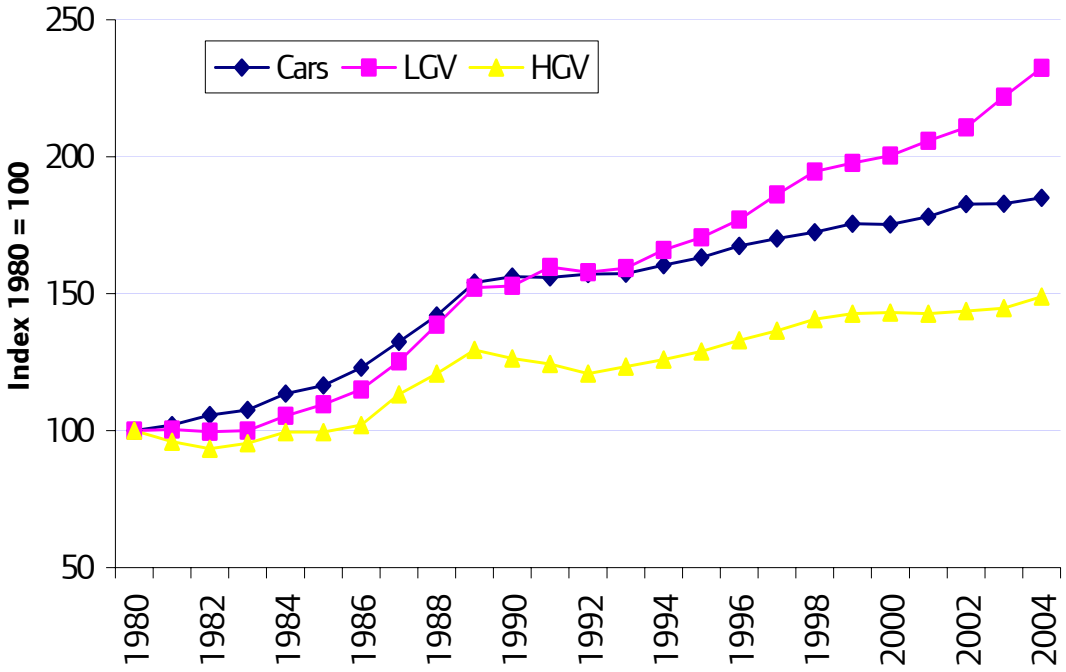
Strong growth in LGV traffic

Nationally, there has been a shift towards increasing use of LGVs and slower growth for HGVs. Figure 1.1 shows how in Great Britain (GB) the amount of kilometres driven by each vehicle type has changed since 1980. HGV (including MGV) traffic[3] grew, but at a lower rate than car traffic. By contrast, LGV traffic increased at a faster rate, particularly over the past decade. In terms of actual distances travelled, LGVs were responsible for 12 per cent of motor vehicle kilometres in 2003, HGVs for six per cent, and cars for 80

[3] Some data sources include MGVs in the HGV category.

per cent. In 2003, there were about 426,000 HGVs and MGVs on GB roads[4] and approximately 2.4 million LGVs.

Figure 1.1: Road traffic in Great Britain by vehicle type



Source: DfT - Transport statistics Great Britain 2004, table 7.1

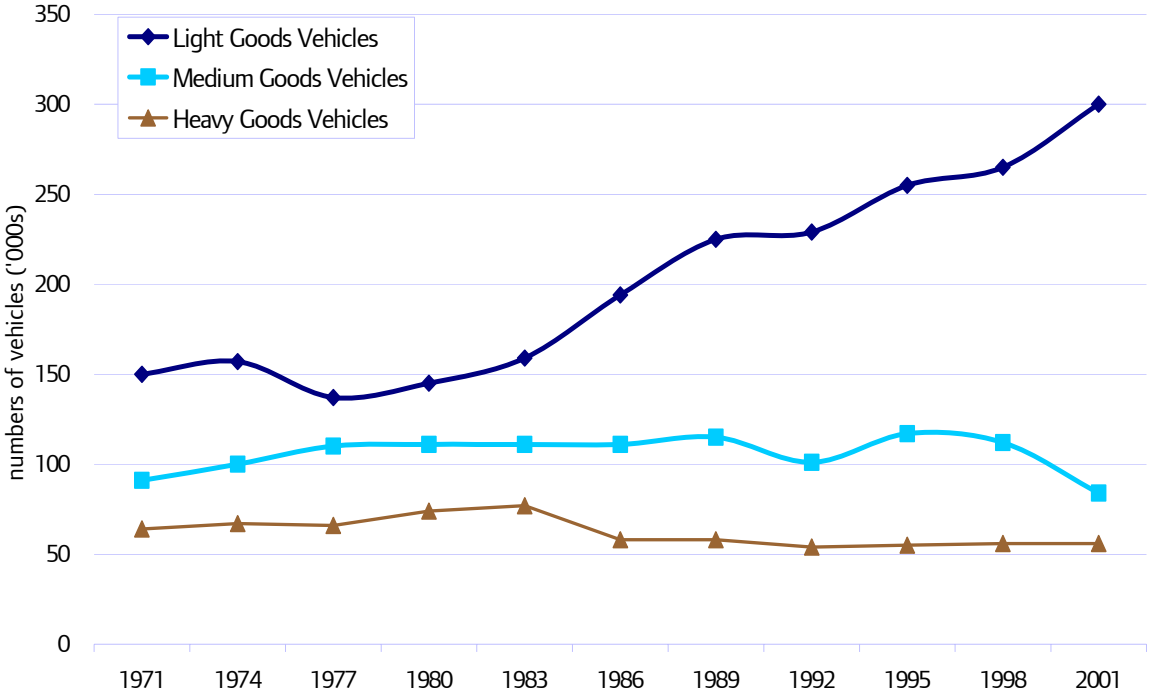
Goods vehicles crossing London boundary cordons

The trends in London can be seen through analysis of vehicles crossing London's three cordons. Figure 1.2 shows a clear increase in usage of LGVs in London over the past two decades, echoing the national trend.

Figure 1.2 shows that the number of LGVs crossing the Outer London boundary cordon (sometimes called the Greater London boundary cordon) each day doubled between 1980 and 2001, with up to 300,000 vehicles crossing per day. By contrast, the number of MGVs has fallen in recent years. The number of HGVs crossing the cordon has remained relatively stable at around 56,000 vehicles per day since the mid-1980s, having declined during the early 1980s.

[4] Department for Transport 2004, Transport of Goods by Road in GB: 2003, based on Continuing Survey of Road Goods Transport. This data includes MGVs in the HGV category.

Figure 1.2: Goods vehicles crossing greater London boundary cordon

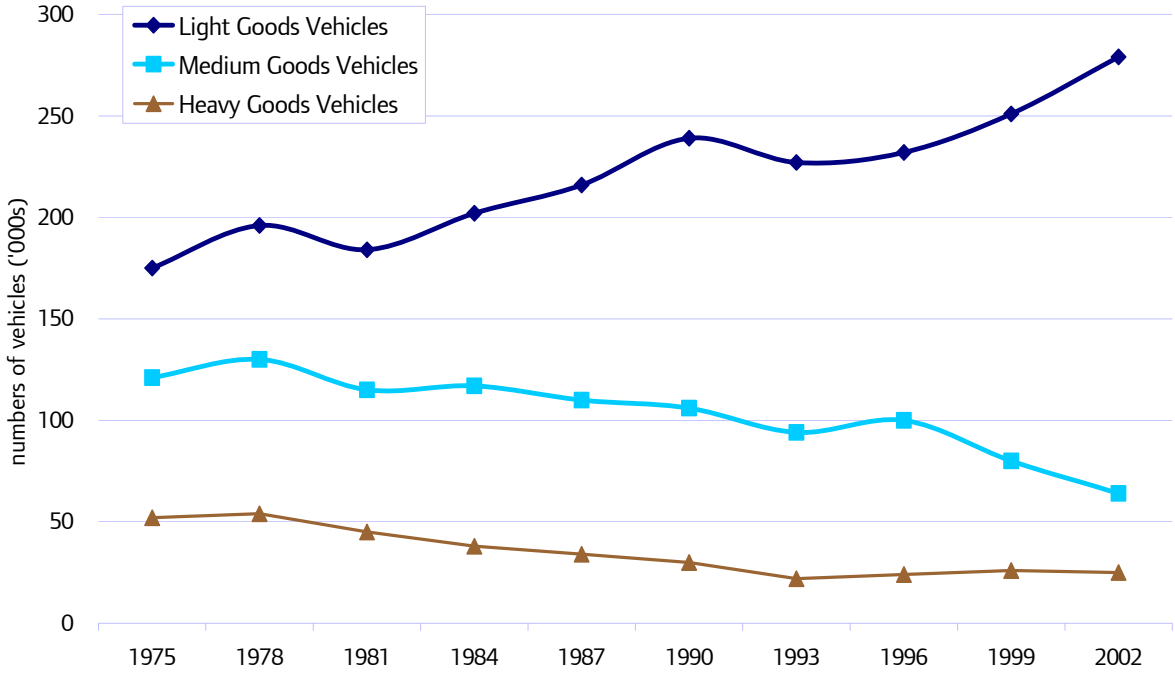


Note: The figure gives the number of vehicles crossing the cordon in one day. The Outer cordon is defined by the GLA area.

Source: Transport for London

These trends are largely repeated at the Inner cordon, as shown in Figure 1.3. However, the Inner cordon showed a greater decline in MGVs compared to the Outer cordon. The use of HGVs fell sharply through the 1970s and 1980s, although it subsequently stabilised at around 25,000 vehicles per day. Overall, goods-vehicle traffic crossing the Inner cordon is 16 per cent less than that crossing the Outer cordon.

Figure 1.3: Goods vehicles crossing inner London boundary cordon

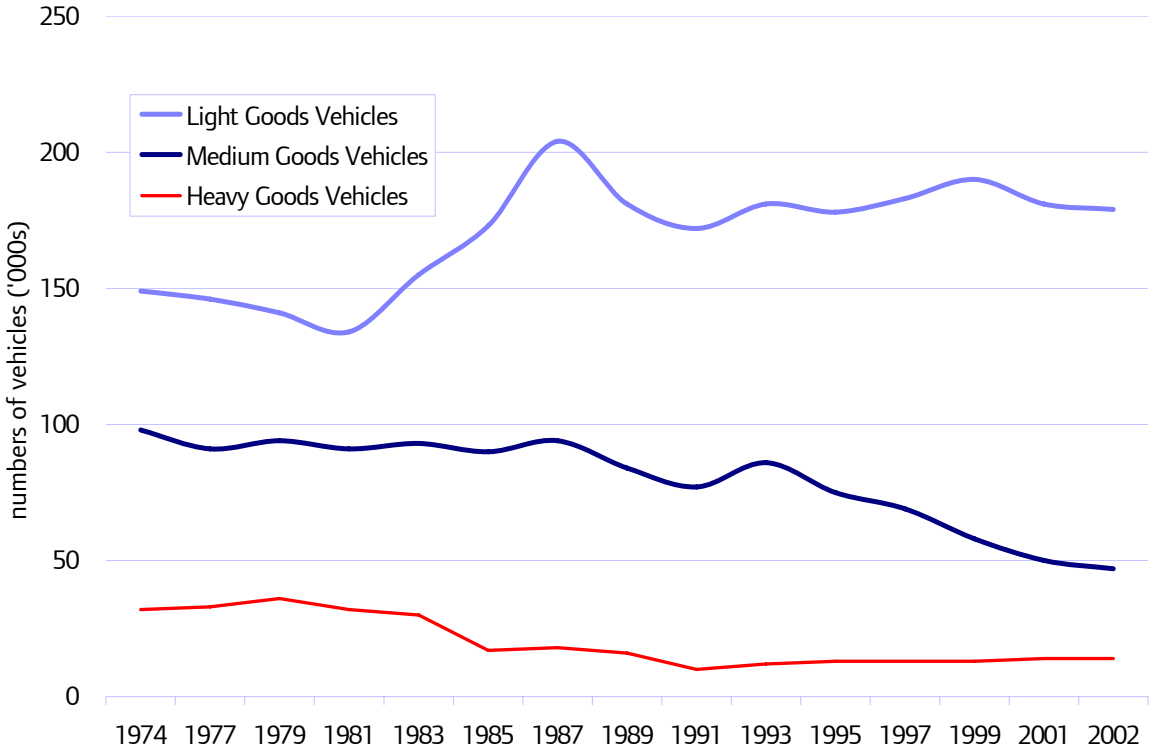


Note: This figure gives the number of vehicles crossing the cordon in one day. The Inner cordon covers the old London County Council area

Source: Transport for London

For Central London, the situation is a little different – as shown in Figure 1.4. In particular, rather than continuing to grow, the number of LGVs crossing the Central cordon actually peaked in 1987 and has been relatively stable for most of the past decade at around 180,000 vehicles per day. HGVs crossing the Central cordon declined sharply from the mid-1980s to the mid-1990s but subsequently stabilised, while the trend for MGVs shows a decline from 1987 onwards. Overall, the amount of goods-vehicle traffic crossing the Central cordon is 29 per cent lower than for the Inner cordon and 41 per cent lower than for the Outer cordon.

Figure 1.4: Goods vehicles crossing central London boundary cordon

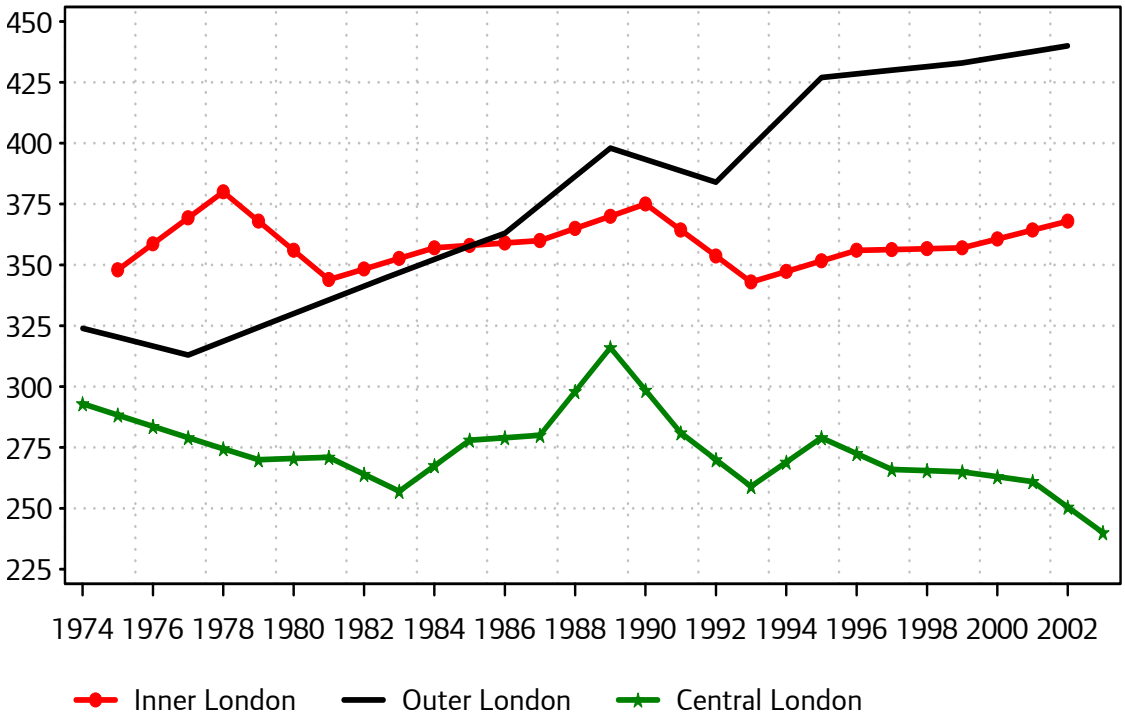


Note: This figure gives the number of vehicles crossing the cordon in one day. The Central cordon approximately covers the boroughs of London City and Westminster

Source: Transport for London

It is noticeable how the traffic crossing these cordons has changed over the past three decades. In the mid-1970s, the amount of freight traffic crossing each of the Central, Inner and Outer cordons was fairly similar. Since this time, the amount crossing the Outer cordon has increased sharply, the amount crossing the Inner cordon has been volatile around a stable trend, while the amount crossing the Central cordon has declined. This is shown in Figure 1.5.

Figure 1.5: Goods vehicle traffic crossing London cordons
1974-2003 ('000 of vehicles per day)



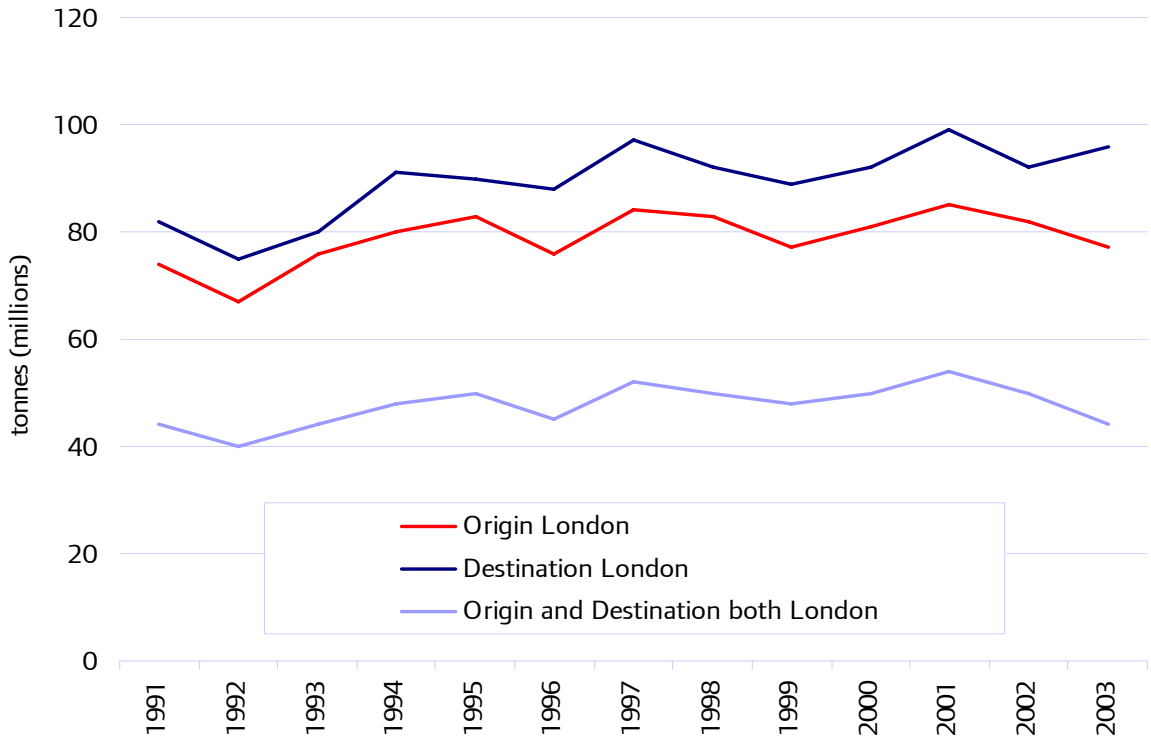
Source: TfL

London's freight – HGVs

Out of the 1,643 million tonnes of freight lifted (i.e. carried) in the UK by HGVs and MGVs in 2003, 129 million (8 per cent) were lifted on London's roads.[5] Forty-four million tonnes were moved within London, with a further 52 million tonnes delivered into London from outside and 33 million tonnes transported from London to destinations elsewhere in the UK. Figure 1.6 shows that freight tonnage on London's roads has been broadly constant over the past decade, despite the large increase in deliveries into London recorded in 2003.

[5] Some data includes MGVs in the HGV category.

Figure 1.6: London road freight lifted, 1991-2004



Source: London Travel Report 2005 and Transport Statistics for London 2001,TfL

However, Figure 1.6 measures tonnage moved, not distances travelled. In terms of traffic management, the distances travelled are of more interest.

Given a certain level of tonnage to be moved, the amount of kilometres travelled by the freight industry depends on a number of factors. These are:

- The average vehicle size – In London and the UK this increased over time due to relaxed regulations on maximum vehicle weights. For example, the maximum authorised HGV weight increased from 32.5 to 38 tonnes in 1983, and then to 44 tonnes in 2001.
- The amount of carrying capacity used – This is measured by the lading factor, which calculates the ratio of the actual goods moved to the maximum tonne-kms achievable if the vehicles were loaded to their maximum carrying capacity.
- The average distance per trip – In the UK, this has increased by 36 per cent between 1980 and 2003.

In London, these factors have combined positively. The increasing size of vehicles has allowed a declining number of HGVs and MGVs (see Figures 1.2 – 1.4) to deliver a stable or increasing amount of tonnage (see Figure 1.6). In other words, the average payload (tonnes carried per vehicle trip) has increased over the past 20 years.

In the UK overall, however, the amount of goods-vehicles kilometres increased sharply (up by 69 per cent) between 1980 and 2003. This was due mainly to the increase in distances per trip, together with the gradual rise in overall tonnage carried (up by 25 per cent over the same period).

The lading factor, meanwhile, declined over time. Across the UK, it fell from 66 per cent in 1982 to 57 per cent in 2003, while in London it is significantly lower at 42 per cent.[6] This suggests that operators could make better use of existing vehicles to reduce vehicle kilometres.

However, despite declining lading factors, the increase in average vehicle size means that the average payload in GB has increased from 8.4 tonnes to 9.3 tonnes since 1982. Over the same period, operators have also reduced the empty running of their vehicles from 33 per cent to 26 per cent of trips.

In London, the empty running of vehicles makes up only 20 per cent of goods-vehicle trips within London, and 22 per cent of trips entering London. However, for trips leaving London, this figure is higher at 34 per cent.[7] This reflects the fact that more vehicles bring goods to London and then leave empty, than take goods from London and return empty.

Retail-related freight

Not all freight is related to retail. Indeed, a large amount of freight moves bulky raw materials. Statistics split freight movements into a number of categories.[8] Two of these categories are largely (but not entirely) made up of retail deliveries of food, drink, tobacco and miscellaneous manufactures. In London, there were 23.2 million tonnes of food, drink and tobacco and 8.8 million tonnes of miscellaneous manufactures lifted in 2003. Together, these deliveries accounted for a combined 26 per cent of total freight lifted. (For the UK, the equivalent figures are 333 million tonnes of food, drink and tobacco and 98 million tonnes of miscellaneous manufactures, together also accounting for 26 per cent of total freight lifted.[9]) The data suggests that up to 26 per cent of HGV traffic could be related to retail, although the actual figure is probably lower.

Both retail-related sectors have seen above average growth in freight tonnages measured across all freight sectors since 1993. This reflects a trend towards increased movement of consumer goods relative to bulky raw materials in the UK economy. Statistics also show that, in terms of average haul distance, miscellaneous manufactures travel the greatest distance of any sector at 162 km. Food, drink and tobacco deliveries have an average of 127 km, while the average distance for road freight overall is 92 km.

[6] Includes MGVs

[7] Includes MGVs

[8] Includes MGVs

[9] University of Westminster for TfL, 2004, Freight transport in London, a summary of current data and sources. This data covers all goods lifted with origin or destination in London.

Move to third-party haulage

The freight market for HGVs and MGVs is split between public haulage (the third-party operations of private logistics companies) and own-account operations. In the UK there has been a trend towards increased public haulage. Major manufacturing companies are contracting out their logistics operations to specialist companies rather than continuing their own logistics businesses. Across the UK, public haulage now accounts for 64 per cent of freight lifted. Data for London shows that 72 to 75 per cent of freight entering or leaving the city is by public haulage. However, for trips within London, public haulage carries only a minority of freight (41 per cent).[10]

London's freight – LGVs

In 2003, there were approximately 183,000 LGVs registered in London. Forty-eight per cent were privately owned and 52 per cent were company owned (in the UK, 58 per cent of LGVs are company owned). These totals mean that Londoners own nine per cent of private LGVs, and seven per cent of company LGVs in the UK.

Private LGVs made 59 million trips within London in the year to September 2003. The average distance per trip for private vehicles was 12 km – giving a total mileage of 709 million km. By contrast, company vehicles had a total mileage of 2,039 million km. This means they were responsible for 74 per cent of LGV mileage within London (compared to 69 per cent overall in the UK).

Seventeen per cent of nationwide LGV kilometres are in the distribution sector

There are no statistics showing the amount of LGV kilometres that the retail industry produces in London. However, for the UK, 17 per cent of LGV kilometres were in the distribution sector (i.e. wholesale and retail trade, repairs and hotels). Company vehicles are more likely to operate in this sector. Nineteen per cent of their kilometres come from the retail industry, compared to 13 per cent of private-vehicle kilometres. Only the construction sector has a higher share of LGV usage.

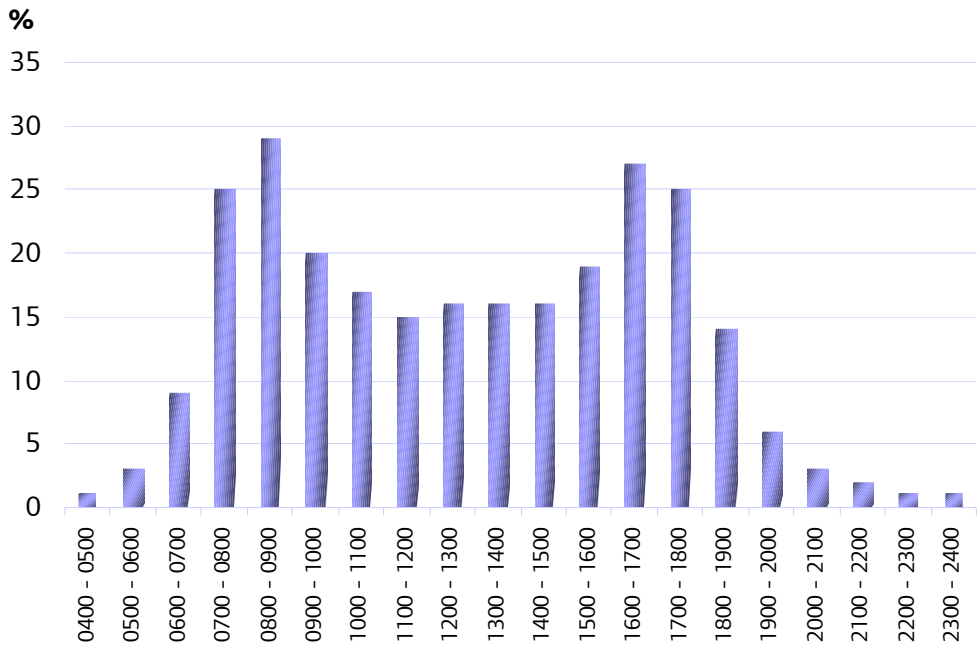
Private LGVs are empty for 28 per cent of their kilometres, and company LGVs are empty for 13 per cent. Data on utilisation shows that company LGVs are less than half full for 61 per cent, and more than three-quarters full for 15 per cent, of their total kilometres.

In terms of usage times, LGVs are most likely to be on UK roads in the rush hours from 7 am to 9 am in the morning and again from 4 pm to 6 pm in the afternoon (see Figure 1.7 for percentages of LGVs on UK roads at various times). These peaks are because many people use LGVs to drive to work at this time, rather than for deliveries. Thirty-six per cent of total LGV mileage in the UK occurs in commuting trips, with around 55 per cent actually occurring in business usage.[11]

[10] University of Westminster for TfL, 2004, Freight transport in London, a summary of current data and sources.

[11] DfT, 2003, Survey of Van Activity

Figure 1.7: Proportion of LGVs in use by time of day, UK: Weekdays



Source: DfT – Transport Statistics Bulletin – Survey of van activity 2003

Summary

HGVs and MGVs

In terms of tonnages, HGVs and MGVs account for 95 per cent of UK road freight. Approximately 26 per cent of this freight is food, drink and tobacco or miscellaneous manufactures. The proportion of freight accounted for by retail will therefore be a significant proportion (but not all) of this percentage.

Seven to eight per cent of HGV freight lifted uses London's roads. The amount moved in terms of tonnage in London has been broadly stable over the past decade, around 130 million tonnes per year.

However, HGV (and MGV) traffic crossing the Outer London cordon has declined. In 2001, 140,000 vehicle movements were recorded in 24 hours. This is down from 155,000 in 1992 and a peak of 188,000 in 1983.

These last two statistics suggest that the average payload per HGV travelling into and out of London has increased over the past decade – enabling total tonnages to remain constant despite a fall in the number of HGV journeys. However, the low lading factor for London, suggests that further improvements in average payloads are possible.

The decline in HGV movements within London was even greater across the Inner cordon. Only 89,000 HGVs and MGVs were counted there in 2002, down from 155,000

in 1992 and a peak of 184,000 in 1978. Similarly, the most recent count across the Central cordon was 61,000 vehicles, down from 100,000 in 1991 and 130,000 in 1981.

LGVs

LGV kilometres in the UK increased by 34 per cent between 1994 and 2003, compared to 14 per cent growth in car kilometres and 15 per cent growth in HGV kilometres. This high growth in LGV usage has been evident since the mid-1980s.

The amount of LGV traffic crossing the Outer London cordon doubled between 1980 and 2001, as did total LGV kilometres in the UK over the same period.

LGV traffic crossing the Inner cordon has also increased but at a slower rate, up 52 per cent from 1980 to 2002. Across the Central cordon, LGV numbers rose from 141,000 in 1981 to 181,000 in 1991 but since then remained relatively stable around this level.

In 2003, approximately 183,000 LGVs were registered in London, 48 per cent were privately owned and 52 per cent company owned. Total LGV kilometres within London in 2003 were 2,748 million kilometres. Company-owned vehicles were responsible for 74 per cent of these.

Seventeen per cent of LGV kilometres in the UK are in the distribution sector. Company vehicles are more likely to operate in this sector, with 19 per cent of their mileage in this sector compared to 13 per cent for private vans.

All freight

Overall, HGV use in London declined over the past two decades, but the tonnages lifted over the past decade remained stable.

LGV usage, meanwhile, increased sharply and continues to do so, particularly in Outer London where the numbers of vehicles crossing the Outer London cordon doubled from 1980 to 2001. However, growth in LGV usage has been lower in both Inner London and Central London, where it has stagnated over the past decade.

The lack of growth in LGV use and the decline in HGV use in Central London over the past decade suggests that either demand for freight has declined over this time, or the average payloads per vehicle entering Central London must have increased.

The data shows that up to 17 per cent of LGV traffic and 26 per cent of HGV traffic in the UK could relate to retail. However, in addition to retail deliveries, the LGV statistic includes hotels traffic, and the HGV statistic includes movements of raw materials to food manufacturers. This means an estimate of 10 – 15 per cent of LGV and HGV traffic is a more realistic figure for retail-related movements.

3. Developments in retail logistics

Introduction

The aggregate freight transport movements identified in Chapter 1 are important when considering the role of service and delivery trips within the wider transport system. However, it is equally important to know why vehicle activity takes place in the manner that it does (i.e. what delivery and service activities occur and what factors determine the time, frequency, and location of vehicle activity). Policymakers need to understand the nature of the supply chain to ensure that measures that alter established patterns of activity are not detrimental to the urban economy.

This chapter explains the major developments in retail logistics over recent decades, showing the impact of these changes on freight movements, and examining the importance of logistics to the competitiveness of retailers. Understanding these key factors provides a base for investigating how policy changes to logistics operations would match or counter current industry trends, and how they would affect retailers.

The chapter begins by considering the changes that have occurred in freight operations since the 1970s as a result of changes in the logistics industry. It looks firstly at the entire UK freight industry before focusing more directly on retail. The next section considers the costs and importance of logistics to retailers, while the final section details likely future changes to these costs.

Changes in freight operations since the 1970s

Many of the statistics on freight transport movements presented in Chapter 1 can be explained by the changes and developments in the logistics industry over the past three decades. The University of Westminster has conducted research in this area since the late 1990s. Until their work began, there had been little research into urban freight transport in UK towns and cities since the 1970s. Over these years, there have been significant changes and developments in how distribution and logistics are carried out. The University of Westminster noted four key points.[12]

First, distribution and logistics systems have changed considerably, with a significant degree of centralisation in manufacturing sites, stockholding points and retailing. Supply chain structures have also changed substantially, especially for large companies, where many have taken increasing control over the supply chain and the distribution of goods to their premises.

Second, the stockholding and goods delivery patterns that manufacturers, retailers and other urban premises require have changed substantially – tending towards more frequent and smaller deliveries. This increase in frequency has resulted in the growing use of LGVs.

[12] Allen et al, University of Westminster, 2000, A framework for considering policies to encourage sustainable urban freight traffic and goods/service flows

Third, the level of current concern about the environmental impacts of urban activities, and especially urban transport systems, was not present at the time of earlier studies in the 1970s. It is now widely acknowledged that new urban sustainability policies are necessary if urban areas are to remain desirable places in which to live, work and spend leisure time; and if areas undergoing economic change are to be successfully regenerated.

Fourth, there has been a major growth in the demand for, and the outsourcing of, service activities in the last 10 to 20 years. This has meant substantial growth in service vehicle movements in urban areas. Greater understanding of the goods and service requirements of urban premises, and the service and delivery operations that provide for these needs, is essential if urban areas in the UK are to continue to be viable, both economically and environmentally.

In addition to these points, rising consumer incomes over the past thirty years have led to an increased demand for goods by consumers. Logistics operators need to meet this increased demand in their deliveries to London retailers. London's rising population, as witnessed over the past decade and forecast for the next decade, adds to the increased demand for goods in the London economy.

Changes in retail logistics

All of these factors described have affected the development of retail logistics. The most important, however, are retailers' increased control of the supply chain, and changes in stockholding patterns. This second factor resulted in more frequent deliveries by smaller vehicles, a trend also clear in the statistics discussed in Chapter 1.

Retailers' increased control over the supply chain

Retailers have increased their control over both primary distribution (from manufacturer to warehouse) and secondary distribution (from warehouse to shop). British retailers exert much tighter control over the supply chain than their counterparts in most other countries. This allows them to push strongly for cost savings through the entire supply chain in an effort to lower the costs of goods to their stores. A key outcome of this shift is that a high proportion of goods is now distributed through distribution centres rather than direct from manufacturers to stores. In some sectors, such as grocery, this process is now virtually complete. IGD data from 2004/05 shows that 93.4 per cent of stock among 11 major food and drink retailers is now supplied through a retail warehouse rather than direct from the supplier to the store.[13]

Inventory levels in the supply chain have been reduced

This shift in the supply chain has been a key aim of logistics changes over recent decades. The success of retail logistics in reducing inventory levels is evident in data from IGD, which shows the decline in the average number of days of warehousing for

[13] IGD, 2005, UK Food and Grocery Retail Logistics Overview Factsheet, sourced from IGD Retail Logistics 2005 report. View: www.igd.com

food and drink goods from 1996 to 2004[14]. By reducing stock time in the supply chain, retailers also reduce order lead-times, which is important when responding to consumer needs. Additionally, reducing stock levels reduces overall logistics costs: goods sitting in a warehouse are unproductive and cost the retailer. As a consequence of these changes, logistics operations are now heavily dependent on IT, particularly the large, integrated stock-replenishment systems that control the movement and storage of enormous numbers of separate products.

More frequent deliveries

There has been a shift towards more frequent deliveries of smaller consignments. This has occurred in the movement of goods from manufacturer to warehouse, as well as from warehouse to shop. The key reason has been the industry's reductions in stock holdings and lead-times, and the resulting need for more frequent stock replenishment both at warehouses and retail outlets. Another factor behind the shift in the grocery sector has been the increased supply of perishable goods.

Emergence of regional distribution centres

As mentioned, retailers have used distribution centres increasingly since the 1970s in preference to direct deliveries from manufacturer to store. IGD research on 11 major food and drink retailers shows that, in 2004, they operated 138 depots with an average size of 230,000 square feet and distributed 4.6 billion of products.[15] The location of distribution centres is extremely important to retailers, as it has a significant effect on their supply chain performance relative to competitors. Factors impacting on the location of distribution centres include the distances to stores, the number of stores the distribution centre can handle, the cost of land and the availability of labour.

Logistics costs to retailers

For retailers measuring the impact of logistics upon their businesses, the percentage of logistics costs to sales revenue is the most important ratio. According to the 2004 IGD research, the average distribution cost for retailers as a percentage of turnover is 3.9 per cent, although there is 3.6 per cent between the lowest and highest costs. Warehousing contributes 51.2 per cent of these distribution costs and transport, 40.7 per cent.[16]

This result ties in with figures in 1996 research on retail logistics by McKinnon.[17] McKinnon stated that retailers that are heavily involved in logistics operations upstream of the shop typically spend 3 to 4 per cent of sales revenue on logistics. However, this research also suggested that expressing logistics costs as a percentage of sales revenue underestimates the impact of logistics on the performance of a retail business. On average, logistics account for around 20 per cent of a retailer's gross margin and can exert considerable leverage on the net margin or profit.

[14] IGD Retail Logistics 2005 reports
[15] IGD
[16] IGD
[17] McKinnon, A, November 1996, *The Development of Retail Logistics in the UK*, A Position Paper

The importance of transport and logistics to retailers is not only reflected in the actual costs. It is also demonstrated in the sector's contribution to corporate competitiveness and its high status in corporate strategic decision-making. In other words, firms compete to gain cost advantages over their competitors through their logistics operations. Much of the pressure for improved transport infrastructure provision and freight-friendly transport policy comes less from the absolute level of logistics costs relative to retail sales and, more significantly, from retailers trying to reduce logistics costs relative to competitors. This is why the lack of consistency across London on delivery curfews (see Chapter 4) and parking regulations is so unpopular with retailers – they do not want to be disadvantaged relative to their competitors.

Finally, the nature of logistics affects revenue as well as expenditure. Logistics improvements can generate additional sales for retailers through their effect on the range, availability and condition of merchandise stock.[18] Of course, the opposite is also true. For instance, in 2004, Sainsbury's lost sales because problems with logistics led to a shortage of products in their stores.

Changes to costs

As mentioned, freight transport costs account for 40.7 per cent of distribution costs for major food retailers. These transport costs can be examined in more detail by looking at data on operating costs for a typical goods vehicle, as calculated by DFF International for the Road Haulage Association. Table 2.1 shows that the mileage-related costs of fuel, tyres, repairs and maintenance account for 41 per cent of total operating costs. Wages account for a further 29 per cent and company overhead costs for 14 per cent.

Clearly, total transport costs to logistics operators are not only influenced by the cost of operating a particular vehicle. They are influenced equally by the number of vehicles required. When logistic operators need to run additional vehicles, issues such as congestion can affect cost structure.

[18] McKinnon, A, November 1996, *The Development of Retail Logistics in the UK*, A Position Paper

Table 2.1: Goods vehicle operating costs

	% of total costs for a typical goods vehicle	% of change in real costs 1990 – 2004*
Fuel	25.9	40
Tyres	3.0	5
Repairs and maintenance	12.1	14
Wages	28.7	19
Depreciation	7.4	-8
Insurance	7.1	235
Company overheads	14.2	17
Road tax	1.3	-71
Finance charges	0.3	-85
Total	**100.0**	**22**

Note: * Nominal Costs deflated by Gross Domestic Product deflator

Source: Road Haulage Association

Table 2.1 shows that total operating costs for a typical goods vehicle have risen by 22 per cent in real terms since 1990. However, this figure is influenced by low diesel prices in 1990, which had declined by 27 per cent over the previous decade. In other words, if the table dated back to 1980 rather than 1990, the percentage for change in fuel costs would show no increase and the change in total operating costs would therefore be lower.

Other costs do not show the same volatility as fuel and so are not influenced to the same degree by the dates chosen for comparison. The table then infers that wage, maintenance and company overhead costs have all increased over time, while insurance costs have increased massively.

Looking ahead, policymakers (such as the Department for Transport (DfT)) assumed until recently that fuel prices would decline over the short to medium-term. For example, DfT's *Transport 10 Year Plan 2000* assumed the price of oil would fall from $28 a barrel to $16 a barrel by 2010.[19] However, 2005 oil prices of above $60 a barrel cast significant doubts on such forecasts. Logistics operators may well face a

[19] DfT, 2000, *Transport 10 Year Plan 2000*

continuation of current, high fuel prices over coming years rather than the lower prices previously forecast.

Meanwhile, wage costs for logistics operators are forecast to rise over the next few years as the Working Time Directive legislation is introduced. This legislation will limit the amount of hours a driver can work, both per day and per week, to below those currently worked in the UK. This will create a need for additional drivers to cover the weekly workload and also for second drivers on long delivery runs.

The need for additional drivers (in an industry already short of trained HGV drivers) should push up wage rates. It is unknown whether the potential to recruit new drivers from Eastern Europe will help to limit this wage pressure. Whether this happens or not, overall wage costs for logistics operators still seem certain. Overhead costs could also rise from the additional scheduling required to meet the legislation.

Summary

Retail logistics has changed significantly since the 1970s. In particular:

- Major retailers have acquired increasing control over their logistics operations throughout the supply chain.
- Retailers have increasingly used regional distribution centres.
- Retailers have reduced stock holdings and lead times to stores.
- Retailers have moved towards receiving smaller, more frequent deliveries.

Logistics costs are typically around four per cent of sales revenues for large retailers, but can be 20 per cent of the gross margin and exert considerable leverage on profits. Furthermore, retailers compete to gain cost advantage through their logistics operations.

The nature of logistics affects revenue as well as expenditure. This means that logistics improvements affect the range, availability and condition of the retailer's merchandise stock, and so can generate additional sales.

Logistics costs are split between costs for warehousing and those for transport. In regards to freight transport, the cost of operating vehicles has increased since 1990, with upward trends in costs for wages, maintenance, insurance and overheads.

Costs are also strongly influenced by fuel prices, which are currently higher than policymakers predicted. Transport costs are also expected to rise due to the requirements of the recent Working Time Directive, which came into force in the UK in March 2005.

4. Delivery and service trips

Introduction

This chapter identifies the types of delivery and service trips that occur to retail outlets and then focuses on how these trips in London differ from other areas of the UK. In doing so, it highlights the issues that most affect retailers in this area, which the following chapters examine in more detail.

Delivery trips

The key deliveries for retailers are those where their core goods (the goods to be resold) are delivered to their retail premises (usually from a distribution centre). However, in addition to these deliveries, the range of trips include:

- core goods collections from premises
- core and ancillary goods transfers between premises
- ancillary goods deliveries to premises
- money collections and deliveries
- waste collections from premises
- Royal Mail postal collections and deliveries
- collections of other goods from premises
- home deliveries (goods despatched from premises to their customers).[20]

These different types of trips may well occur at different times of the day. For example, deliveries of goods to retail premises usually occur in the morning and collections in the afternoon. Retailers do not directly control all delivery trips and, in many cases, they are unaware of the exact timing of trips.

In general, delivery vehicles can be parked in London for 20 minutes while loading and unloading occurs (this is discussed further later in the report).

Service trips

The main purpose of service trips is to carry out a service activity at the premises, rather than to solely deliver or collect goods. Examples of service trips to urban premises include the servicing of computer equipment, photocopiers, cash registers, security and fire alarms, lifts and escalators, and air conditioners, as well as the provision of towel and dry cleaning services, general cleaning and plant care.[21] Service providers often have to take equipment and tools onto the premises.

[20] Allen et al, University of Westminster, March 2000*, A framework for considering policies to encourage sustainable urban freight traffic and goods/service flows*

[21] Allen et al, University of Westminster, March 2000*, A framework for considering policies to encourage sustainable urban freight traffic and goods/service flows*

Because service trips do not generally involve loading and unloading, service vehicles going to urban premises tend to receive less policy assistance in terms of on street parking than vehicles delivering goods to the same premises. To park lawfully, service vehicles need to either use regular car parking spaces or apply to for temporary dispensation from parking regulations (and pay a variable cost depending on the borough).

Also, if a car is used to provide services to a premise, it often enjoys less policy assistance than a van or lorry, as traffic wardens are likely to assume it is being used on private business (e.g. shopping or leisure) rather than as a service vehicle. By comparison, wardens are more likely to identify LGVs as service vehicles.

Service companies experience some different problems to freight transport companies making deliveries. For service vehicles, parking problems tend to be far more adverse than traffic flow problems. The parking needs of service vehicles and how these could best be provided is an area that needs increased consideration.

Deliveries are not homogenous

One key point in understanding delivery and service to retailers is that all trips are not homogenous. There is huge variability in how different types of trips are carried out.

The University of Westminster conducted a survey to quantify differences in the urban distribution operations of different companies.[22] Although the survey did not focus on London (it covered Birmingham, Basingstoke and Norwich), it was a rare effort to analyse urban distribution in the UK. The University selected companies that are major players in the logistics industry and that reflect the breadth of distribution activity taking place in urban areas.

The study illustrated major differences in vehicle operations between the companies in terms of:

- the distance travelled on each vehicle round
- the size and weight of vehicle used
- the operating time of the vehicle rounds
- the actual time taken to make collections and deliveries
- the time taken to collect/deliver goods compared with the time taken to drive the vehicle
- the average speed of vehicle rounds
- the vehicle fill at the start of the round.

[22] Allen et al, University of Westminster, January 2003, *Modelling policy measures and company initiatives for sustainable urban distribution – Final Technical Report*

The survey showed that these features depend on factors including:

- the types of product carried
- the quantity of goods for each collection or delivery address
- the location of the depot from which goods are despatched to the urban area
- the geographical coverage of the vehicle trip
- the location of deliveries and collections in the urban area.

In other words, it is clear that there are many different patterns of urban distribution to take into account when developing suitable policy measures. Policymakers should not assume that all deliveries are made early in the morning and last less than 20 minutes, or that the same delivery patterns apply to different goods or retailers. In reality, there is widespread variability in all of these factors.

This variability is further accentuated by the heterogeneity of retailers, and their differing requirements for their deliveries. For example, large retailers can often deal with night-time deliveries and may indeed prefer them. However, most small or medium retailers want deliveries to occur during office hours. Meanwhile, early morning deliveries are necessary for perishable goods, and less important for non-perishable goods.

So far, there has not been much research to understand this variability of delivery and service needs and operations, or to establish the relationships between business types and delivery and service needs. Because of the variability in this area, further research would clearly be useful.

Deliveries in London differ to other UK locations

A number of key differences exist when delivering to or servicing retailers in London as opposed to elsewhere in the UK. The majority of these derive from the high density of development in London, as outlined:

- The tighter street pattern encourages the use of smaller vehicles.
- The high density of development means there is higher congestion on the streets, slowing down deliveries. However, this also means deliveries can often be closer together.
- The high density and high cost of land means few retail stores have off-street delivery bays, giving London a higher share of on-street delivery.
- The greater proximity of retailers to residential areas in London, including higher numbers living above shops, has led to stronger pressure on local authorities to impose restrictions on delivery times and on HGV movements.
- The higher congestion and the decriminalisation of parking within London mean delivery and service vehicles are much more likely to receive a PCN.
- The high cost of land means most retail stores in London have more limited warehousing or storage space, resulting in more frequent deliveries.

The key concerns of delivery and service operators in London

A survey of delivery and service operators parking in Ealing town centre found that the main difficulties that businesses identified were due to:

- road congestion (43 per cent of all businesses)
- insufficient off-street loading facilities (61 per cent)
- inconsiderate parking obstructing kerbsides (42 per cent)
- existing loading restrictions on kerbside (60 per cent).[23]

These results from delivery and service operators can be summarised as concerns based upon parking and congestion. In addition to these concerns, many retailers and Freight Transport Associations (FTA) have questioned the existence of restrictions upon delivery hours. The next three chapters look at these issues in more detail.

Summary

There are many different types of deliveries made to London's retailers in addition to the movement of core goods to its stores. Similarly, a wide range of potential service trips to retailers occur, albeit on a less regular basis.

There is little homogeneity in these trips, with logistics operators differing significantly in their operations, and retailers having varying requirements for the type and timing of deliveries.

Some trends, however, can be discerned. For example, most deliveries to stores occur in the morning, while most collections are later in the day. Where perishable goods are involved, deliveries are likely to be more frequent and, in the case of supermarkets, before opening hours. Additionally, small retailers are more likely to want deliveries within their opening hours, while large retailers are better able to accept out-of-hours deliveries.

The density of London is such that deliveries there differ significantly to those elsewhere in the UK. In particular, there is more-on-street delivery, there are more restrictions on delivery hours, and there is a greater use of smaller vehicles. Also, vehicles are much more likely to receive a PCN in London.

[23] West London Freight Quality Partnership, Survey for Ealing Town Centre Project. View: www.westlondonfqp.com/news6.htm

5. Hours of delivery

Introduction

One area of concern to both retailers and their logistics operators are current restrictions on delivery times to retail stores. Restrictions limiting night-time deliveries exist to protect residents from noise disturbance. However, many retailers would welcome some relaxation of the current limits, which they believe have not changed in line with the increasingly all-day all-night nature of the London economy.

This is a stronger concern for large retailers. Small retailers usually prefer deliveries to be made during office hours. Large retailers, however, would welcome night-time deliveries to allow stores to be re-stocked ahead of opening times. This is particularly true for stores selling perishable goods such as supermarkets. Meanwhile, for logistics operators, restrictions on night-time deliveries mean they make most deliveries during the day when road congestion is at its worst.

This chapter examines the restrictions on delivery times within London. It focuses first upon the LLCS, which limits routes for HGV traffic at nights and weekends. It then considers the planning-related delivery curfews that are imposed on retailers.

Restrictions can increase delivery costs

Theoretically, time restrictions on deliveries lead to distribution activities being compressed into a shorter period of time. This can have negative impacts on the distribution operations of companies by causing an increase in vehicle trips and total distance travelled.[24] For example, a time restriction can increase mileage by preventing a multi-trip journey by a single vehicle. If there were not enough time to carry out a multi-trip journey, the operator would need to employ an additional vehicle, thereby increasing mileage.

As discussed in Chapters 1 and 2, there are many reasons why freight mileage in London has increased over recent decades. In comparison to some of these (e.g. the move towards just-in-time delivery), the effects of time restrictions on mileage are relatively small. Nevertheless, any increase in mileage inevitably also increases fuel consumption and emissions of both air pollutants and carbon dioxide.

A relaxation of time restrictions could result in commercial benefits. These benefits would depend on the trade-off between improved driving speeds and higher drivers' wages for night work. For night-time deliveries to become more commonplace, senders and receivers of goods would also need to accept night work. However, many retailers may not wish to do so as this could potentially increase reception and despatch costs and raise security concerns for their premises if staff are not present. To make night collections and deliveries in urban areas possible for more distribution companies,

[24] Allen et al, University of Westminster, January 2003, *Modelling policy measures and company initiatives for sustainable urban distribution – Final Technical Report*

negotiations between supply chain partners would be necessary. Large retailers would be most likely to accept such deliveries.

Relaxing time restrictions could also result in environmental benefits. Vehicles could travel at a more constant speed because of less congested roads, as well as potentially travelling shorter distances (congested roads mean that two vehicles may be needed to complete deliveries on time whereas easing time restrictions may mean that one vehicle could potential do the same work and travel less miles overall). These effects would reduce fuel consumption and carbon dioxide emissions. However, to realise these benefits, a positive change in the loading and routing patterns of goods vehicles is also necessary. If night-time deliveries made it less likely that a vehicle is re-used (for example, if some potential multi-trip users refuse to accept night delivery), then the need for additional trips may prevent any gains.[25]

At present, there are two main restrictions in London that limit night-time or early-morning deliveries more than retailers and the logistics companies would like. One of these is the LLCS. The other is the imposition of delivery curfews, normally through planning conditions, on a store-by-store basis. These restrictions exist primarily to safeguard local residents from excessive noise at unsociable hours. Details of the two restrictions are set out below.

LLCS

The LLCS, also referred to as the London Lorry Ban, is an environmental measure that was introduced to reduce traffic noise and general disturbance to London residents at night and weekends. It operates from 9pm to 7am Monday to Saturday and then on the weekends from 1pm Saturday through to 7am Monday morning. During these hours, vehicles over 18 tonnes must maximise use of an Exempt Route Network (ERN) – a prescribed set of roads – and avoid other roads, unless express permission is obtained. The ERN consists of the North and South Circular Roads and major radials that lead to these or continue further towards Central London.

The Association of London Government (ALG) is responsible for maintaining the LLCS on behalf of London boroughs. The ALG issues permits to vehicle operators and enforces the ban.

The LLCS aims to:

- protect London residents from excessive noise and pollution from HGVs at night and weekends
- encourage through traffic to use the M25.

[25] Transport for London (Surface Transport), September 2004, *Traffic impact assessment report – Night-time delivery restriction relaxation*. This identifies the possibility of less lorry re-use at night.

The main consequences of the ban for logistics operators are that:

- delivery costs can be higher due to the increased distance for deliveries
- there is an incentive to use vehicles of less than 18 tonnes
- if an HGV over 18 tonnes is used, there is an incentive to use it during weekday hours, when road congestion is at its worst.

For these reasons, the LLCS is unpopular with freight operators who see it as an unnecessary extra cost to their businesses. It is, however, popular with London boroughs and residents.

The London Sustainable Distribution Partnership has been considering the LLCS within the context of overall freight-distribution issues. This process included a technical review funded by TfL and carried out by the Transport Research Laboratory. The initial results recommend a number of minor changes to link the ERN to industrial areas and increase compliance with the TfL Road Network (TLRN).

Following this report, ALG, which runs the LLCS, has agreed – subject to the statutory traffic regulation order process – to implement these recommendations. The ALG has also proposed to exempt battery or hybrid vehicles running on electric power, and will also consider exempting compressed natural gas vehicles.[26]

Additionally, the ALG will introduce an online electronic map to advise users of the best possible route for their journey. This will make the LLCS more accessible and easier to use.

The GLA environment (noise) team has suggested developing the London Road Traffic Noise Map. This would enable operators to seek more direct routing than the existing ERN. While at present they have to count houses, a Noise Map could readily indicate a route that balances noise considerations with operational efficiency. This would give operators appropriate route choices and reduce the need for all vehicles to keep to the network, decreasing distance and time travelled, and the resultant pollutant emissions.

To the extent that the LLCS encourages use of vehicles below 18 tonnes, its effects are similar to those of a weight-restriction policy on freight. The University of Westminster's research on the effect of imposing a hypothetical 12-tonne weight restriction found that companies operating HGVs over 12 tonnes would have to change their distribution patterns significantly to comply. These changes would result in major increases in total vehicle operating costs. Operators would need extra smaller vehicles, which would raise

[26] The GLA environment (noise) team are cautious about this proposal. They believe a performance-based exemption is preferable to the purely technology-based exemption proposed. They argue it is not clear that large electric vehicles, or vehicles that have had a retrofit engine conversion to gas, will necessarily be quieter than some diesel vehicles. This means they would prefer any exemption to be based on performance criteria rather than solely on the basis of the technology.

the total time and distance travelled, and increase pollutant emissions and the environmental impact.[27]

Meanwhile, for HGVs over 18 tonnes that continued to deliver at night, the need to keep to the exempt route network acts similarly to increase distance and time travelled, and the resultant emissions.

It is reasonable to conclude that the LLCS does increase logistics operation costs greenhouse gas and other air pollutant emissions. However, the ALG must balance these costs against the impacts of noise pollution upon London residents, as this issue is regarded as the primary justification for the LLCS.

Delivery curfews

Individual boroughs decide on their own delivery curfews. In many areas of London, these restrict the time of day that a retailer can take delivery of goods. Delivery curfews are usually put in place to prevent night-time noise disturbance to residents and are more common in London than elsewhere in the UK.[28]

This reflects the fact that residents often live closer to retail stores in London than in other centres. These residents are at greater risk of noise disturbance due to retailers' operations. Unsurprisingly, retailers say that boroughs are generally unwilling to change delivery curfews in their area for fear of the reaction from local residents (i.e. voters).

There are three types of delivery curfews: planning conditions, noise abatement notices and voluntary restrictions. A planning condition is when the borough imposes a delivery restriction on a retailer as a condition of giving planning consent. A noise abatement notice restricts delivery times under the Environmental Protection Act 1990[29] – if noise emitted from a premises is prejudicial to health or a nuisance this constitutes a statutory nuisance. Voluntary restrictions are when a retailer chooses to restrict deliveries to avoid the imposition of a noise abatement notice. A borough would usually encourage a voluntary restriction to avoid serving a noise abatement notice.

A survey of large retailers across the UK found that of those stores subject to delivery restrictions, 31 per cent were due to planning conditions and 11 per cent to noise abatement action. The other major restrictions found were traffic regulations and bans on weekend deliveries.[30]

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[27] Allen et al, University of Westminster, January 2003, *Modelling policy measures and company initiatives for sustainable urban distribution – Final Technical Report*

[28] British Retail Consortium, November 2001, *Delivery Curfew Survey Results*

[29] Part III Section 79 subsection 1

[30] British Rail Consortium, 2004, Delivery Curfews Survey

Curfew standardisation

One of the reasons that retailers are concerned about delivery curfews is that they vary significantly. Data from TfL on curfews on London retailers showed a lot of variation in the reasons for curfews, along with their type, length, and start and finish times.[31] This variation can produce anomalies between similar businesses operating on the same street but under different restrictions. One retailer surveyed had delivery curfews on around half of their London stores, but with 15 different start times and 30 finish times.

There are good local reasons why longer delivery times may be acceptable in one location compared to another, including physical layout and proximity of loading areas to housing. Standardising delivery times across a highly diverse city could result in some locations having more restrictive times than is strictly necessary. Nevertheless, retailers clearly believe that delivery curfews across London are not consistent and would prefer more uniform restrictions.

Curfew relaxation

Retailers believe that many delivery curfews in London need updating. Curfews often do not reflect modern retail conditions and were set when the industry was significantly different. (Although retail conditions may have altered, this does not necessarily mean that relevant environmental factors have also changed.) Retailers argue that delivery curfews do not take account of longer opening hours and Sunday trading. In recent years, retailers have lengthened their opening hours, while some, particularly large grocery supermarkets, are now open 24 hours a day. Research by the University of Edinburgh found that more retailers would take deliveries at night if they were not subject to delivery curfews.[32] Large retailers, in particular, would benefit from more night-time deliveries. They would improve customer service – by having goods on the shelves before opening – and reduce costs. As well as this, some retailers could not get goods delivered to stores on a Sunday because delivery curfews were set before the introduction of Sunday trading.

Retailers argue that the combination of delivery curfews and restrictions such as Red Routes (see Chapter 5) mean that in some areas of London, they cannot receive legal deliveries at their stores.

While retailers understand the reasons for some curfews, they believe that relaxed curfews and a greater standardisation of delivery times would have a major impact on their ability to do business in London.

At present, it is very difficult to get a delivery curfew changed. Retailers must make a specific application to the local borough for a revision to the planning condition. As an alternative, retailers would welcome automatic regular reviews of existing curfews. They

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[31] This survey included nine London grocery retailers with 123 outlets around London

[32] Professor Alan McKinnon; Dr Yongli Ge; Duncan Luchars, Logistocs Research Centre, School of Management and Languages, Heriot-Watt University, Edinburgh UK, April 2003, *Analysis of Transport Efficiency in the UK Food Supply Chain, Full Report of the 2002 Key Performance Indicator Survey*

feel this may remove some inertia from the system, which makes changes so difficult to obtain.

Even with review, many retailers believe most boroughs would be unwilling to change curfew times and risk upsetting local residents. To improve this situation, a transparent and democratically accountable review is needed. National government (in this case the Office of the Deputy Prime Minister) could commission an independent, cross-sectional study into the consistency of premises-based delivery hours restriction, and the system's ability to adjust to changing circumstances. If the study found evidence of unjustified inconsistencies or inflexibility then it could issue new guidance to local planning authorities. Also, the Secretary of State could clarify national policy on how authorities are expected to balance the interests of both residents and retailers with other concerns. Guidance could also promote model section 106 agreements, which could include positive good practice measures to control noise, which may not be covered in planning conditions.

Quieter vehicles

Retailers and logistics operators state that improvements to vehicle technology have led to, and continue to lead to, quieter vehicles. They suggest that the problem of noise is not as great now as it was when the LLCS was set up – and that as a result both the LLCS and delivery curfews are, or will increasingly become, unnecessary.

HGVs have become quieter over the past two decades in terms of the drive-by type of test traditionally used to measure vehicle noise.[33] However, older lorries can still be among the noisiest vehicles on the road generating high noise levels when driven harshly or under full load. Additionally, noise from loading and unloading – such as from tyre scrub, brakes and transmission in low-speed manoeuvres, roller shutters, tailgates, trolleys and reversing signals, as well as voices and music from cabs – can create annoyance, particularly at times when background noise levels are lower (egg at night). Because of this, noise pollution from goods vehicles and deliveries does remain an issue.

Despite these points, there is still scope for further reductions in noise pollution. For example, many cleaner vehicles can also be quieter. Liquid petroleum gas or compressed natural gas engines can be significantly quieter than conventional large diesel engines, although modern common rail diesels can also be quiet. Modern broadband reversing signals can replace the highly intrusive beep of traditional alarms. Crossover, footway and other surfaces, and trolleys and other equipment can all be designed to minimise noise. Quiet roller shutters can be specified at minimal additional cost.

An Environmentally Enhanced Vehicle (EEV) category has been suggested for vehicles with cleaner and quieter engines, and control of body rattle and other incidental noise.

[33] However, the Mayor's Ambient Noise Strategy 2004 considers it a particularly inappropriate test for commercial vehicles. A review by I-INCE (the International Institute of Noise Control Engineering) and work on the LLCS by TRL for TfL, suggests that noise reductions in typical on-street operating conditions have been generally lower than those achieved in the standard drive-by certification test.

All these developments would weaken the justification for both the LLCS and delivery curfews. At present, some early steps towards such outcomes are being considered.

However, while many quieter technologies are available, retailers' application of them is limited. For example, noisy nylon-wheeled, steel mesh-sided trolleys are still commonly used. Only a few retailers such as Boots have changed to the quieter rubber-tyred, plastic-walled trolleys.

Good driving and operator practices have been promoted for many years, but incidents of unnecessary and avoidable noise on streets and in delivery areas still occur. If residents are to be persuaded that more night deliveries can take place without greater disturbance, a steep change is needed, not just in technology but also in operating practices. Some element of enforcement is also important to ensure that retailers and operators maintain efficient and effective performance.

Summary

The combined effect of the LLCS and delivery curfews is that more deliveries are forced into daylight hours when road congestion on the roads is at its worst. This may add to delivery costs and greenhouse gas and air pollutant emissions. It can also affect the retail operations, for example, in preventing the restocking of fresh goods before to opening.

Both retailers and logistics operators feel strongly that the scheduling of both the LLCS and the various curfews do not reflect the increasingly all-day all-night nature of London's economy. Of course, there are reasons for these curfews, the most important of which is to protect residents from noise.

Retailers are also concerned about the widespread variability of times for delivery curfews (although local factors may explain some of them). There would be certain benefits in curfews being more consistent. This means there is a case for an early, independent, objective, cross-sectional review of delivery restrictions and their consistency. If evidence suggests that fair balances are not in place, the Office of the Deputy Prime Minister should issue new planning guidance. In addition to this, delivery curfews should be reviewed on a regular basis so they can be updated to meet the changing demands of the economy. (Alternatively, the application process for retailers requesting curfew revisions needs to streamline according to specific changes in local circumstances.)

Reducing the length of the restrictions (or easing or abolishing the LLCS) would allow cost savings by retailers and logistics operators. However, the restrictions do exist to protect London residents from excessive noise at night. Policymakers need to weigh up the possible positive economic and air pollution benefits of decreasing restrictions against negative noise pollution effects. They also need to consider how, once policy is implemented, to ensure that reductions in all the various noise impacts of goods vehicles are met in practice.

6. Parking, loading and waiting

Introduction

The issue of parking and, in particular, the issue of PCNs is always mentioned as a problem of conducting delivery and service trips in London. Many operators pay substantial sums in PCNs each month in London – certainly more than anywhere else in the UK. In some cases, these payments are justified because of illegal parking, although often this is due to the lack of legal parking available. However, there are also many cases where operators feel they are unfairly issued with PCNs while carrying out legitimate loading and unloading activities.

This chapter examines the issues surrounding parking for service and delivery vehicles. In particular, it focuses upon the evidence concerning PCNs, and looks at how these, and other parking regulations, affect service and delivery operators.

Before addressing some of the current problems, it should first be noted that parking regulations and their enforcement have an important role in an urban economy such as London. Without regulations, parked vehicles could block or impede passing traffic, generating congestion. As well as improving traffic flow, parking regulations stop vehicles parking illegally in delivery bays or on yellow lines outside delivery addresses. Without some restrictions, it would become more difficult for goods and service vehicles to access retail outlets and make deliveries.

As such, an effective parking regulation and enforcement policy for vehicles in London would benefit freight operators by improving congestion and ensuring available delivery bays are used only for legitimate deliveries. The key issue is whether current policy does provide these benefits or whether, as currently suggested, it imposes unnecessary costs on service and delivery operators.

PCNs – borough roads

TfL and the London boroughs share responsibility for London's roads, and each borough is subject to different types of restrictions. TfL is responsible for most of the major roads through London, which make up the TLRN. Boroughs control the remaining smaller roads. Up to now, the main problem relating to PCNs has been on borough roads.

Loading regulations

Waiting restrictions on borough roads are indicated by yellow lines on the carriageway. You may stop to load or unload (unless there are also loading restrictions) or while passenger's board or alight. In London, waiting restriction orders generally allow up to 20 minutes continuous loading and unloading.

Loading restrictions are indicated by yellow blips marked on the kerb. Two blips mean no loading (or waiting) at any time, while one blip means no loading for a period longer than indicated on the signs or time plates.

However, rules on loading and unloading vary by borough. These can differ in the timing restrictions; the observation period parking attendants give to commercial vehicles taking longer that 20 minutes before issuing PCNs for; and in how each borough defines loading and unloading.

These differences are illustrated in the responses to a survey by the FTA. The FTA wrote to all of the London boroughs asking them to advise of their policies on the loading and unloading of goods vehicles. FTA then published the responses on its website.[34] Comparing Camden, Lambeth and Lewisham shows how widely boroughs' policies can vary.

In Camden, loading and unloading time is unrestricted before 11 am and only restricted to 20 minutes after 11 am. Lambeth and Lewisham have a 20-minute restriction all day. If there is no evidence of loading or unloading, commercial vehicles are given a ten-minute observation period in Lewisham, 20 minutes in Camden but only two minutes in Lambeth before PCNs are issued.

To deliver for over 20 minutes in Lewisham, it is possible to purchase a yellow-line waiver at £15 per day or to apply for a parking-bay suspension (which takes 3 weeks). In Lambeth, the only option is to apply for a parking-bay suspension. In Camden, service vehicles can purchase a permission-to-park waiver for £5 per day in the north of the borough but not in the south. Otherwise, parking-bay suspensions are also possible given two weeks' notice.

In Camden, loading and unloading includes the physical loading and unloading of the goods and anything strictly connected with it, such as getting a delivery note signed. However, evidence of loading and unloading activity must be visible and vehicles must not be left unattended. In Lambeth, by contrast, loading and unloading does not include getting delivery notes signed, although they are valid evidence if submitted as part of a representation or appeal.

Enforcement of PCNs

Before 1994, restrictions on borough roads were enforced by the police. The Road Traffic Act 1991 brought about a number of key changes, including decriminalising parking offences and bringing them within the civil enforcement system. At the same time, a number of additional enforcement responsibilities, such as restricted (yellow-line) parking, were removed from the police and also given to councils. London boroughs implemented the Act's provisions during 1993 and 1994. Many boroughs have since contracted the enforcement of parking to private organisations, adding to the freight industry's view that parking policies are not applied consistently across the boroughs.

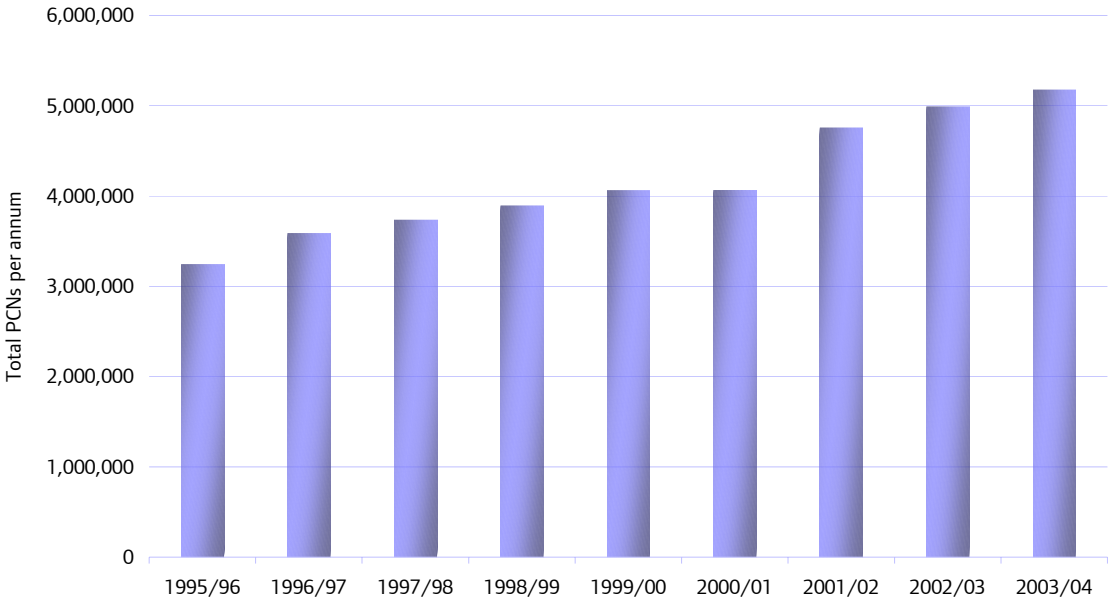
[34] http://www.fta.co.uk/information/keycampaigns/delivering_london/parking/map.htm

The retailers and logistics operators told GLA Economics that PCNs have become a particular issue in London since the decriminalisation of parking. A lot of anecdotal evidence was received about the increase in PCNs issued to logistics operators, and also examples of PCNs being issued when a legitimate delivery was taking place.

The evidence on PCNs

Figure 5.1 considers the total number of PCNs issued in London between 1995/96 and 2003/04. Note that all London boroughs had taken on parking enforcement by July 1994 and so the financial year 1995/96 was the first full year of implementation.

Figure 5.1: Total PCNs in London 1995/96 – 2003/04



Source: ALG, Transport and Environment Committee

Figure 5.1 shows that PCNs issued in London have increased from 3.25 million in 1995/96 to 5.18 million in 2003/04. This represents an increase of 60 per cent, which equates to an average increase of 6 per cent per annum. (This is significantly above the increase in traffic volumes over the same period.) These figures include PCNs issued for all vehicles, not just vehicles making a delivery. The available statistics do not distinguish between private and commercial vehicles.

By means of comparison, the estimated number of FPN parking attendants issued in London boroughs in 1990/91 (i.e. prior to decriminalisation) was 2.22 million.

Logistics operators told GLA Economics that Central London was the worst area for receiving PCNs, particularly the boroughs of Westminster and Camden. This is borne out by the evidence in Table 5.1, which shows that 3.46 million (67 per cent) of the PCNs issued in London are issued in Inner London – compared to 1.72 million (33 per cent) in

Outer London. Westminster and Camden are the boroughs that issue the most PCNs, which is to be expected, as they are also the most densely developed boroughs.

Table 5.1 also shows that the growth rate of PCNs issued was slightly higher (7 per cent per annum) in Inner London compared to Outer London (5 per cent per annum) over the eight-year period shown. Lambeth, Newham and Islington show the largest percentage increase in PCNs issued over this period with only Croydon and the Corporation of London seeing an absolute decrease.

Table 5.1: PCNs and appeals 2003/04

	Total PCNs issued	Average annual % change in PCNs issued	% of PCNs appealed	% of appeals accepted
	2003/04	1995/96-2003/04	2003/04	2003/04
Total London	5,178,879	6%	0.9%	59%
Inner London	3,458,017	7%	0.8%	58%
of which				
Westminster	1,051,798	3%	0.9%	59%
Camden	446,212	10%	0.4%	41%
Kensington and Chelsea	291,445	4%	1.0%	65%
Islington	260,888	14%	0.8%	63%
Wandsworth	218,902	10%	0.5%	70%
Hammersmith & Fulham	186,401	7%	0.8%	50%
Lambeth	184,157	17%	2.1%	73%
Newham	173,180	15%	0.4%	44%
Haringey	168,506	10%	0.5%	76%
Hackney	149,715	10%	0.6%	70%
Southwark	143,194	9%	0.9%	65%
Tower Hamlets	74,217	0%	1.2%	53%
Corporation of London	59,015	-6%	0.8%	43%
Lewisham	50,387	0%	0.8%	46%
Outer London	1,720,862	5%	0.9%	53%
of which				
Barnet	181,881	10%	1.6%	56%

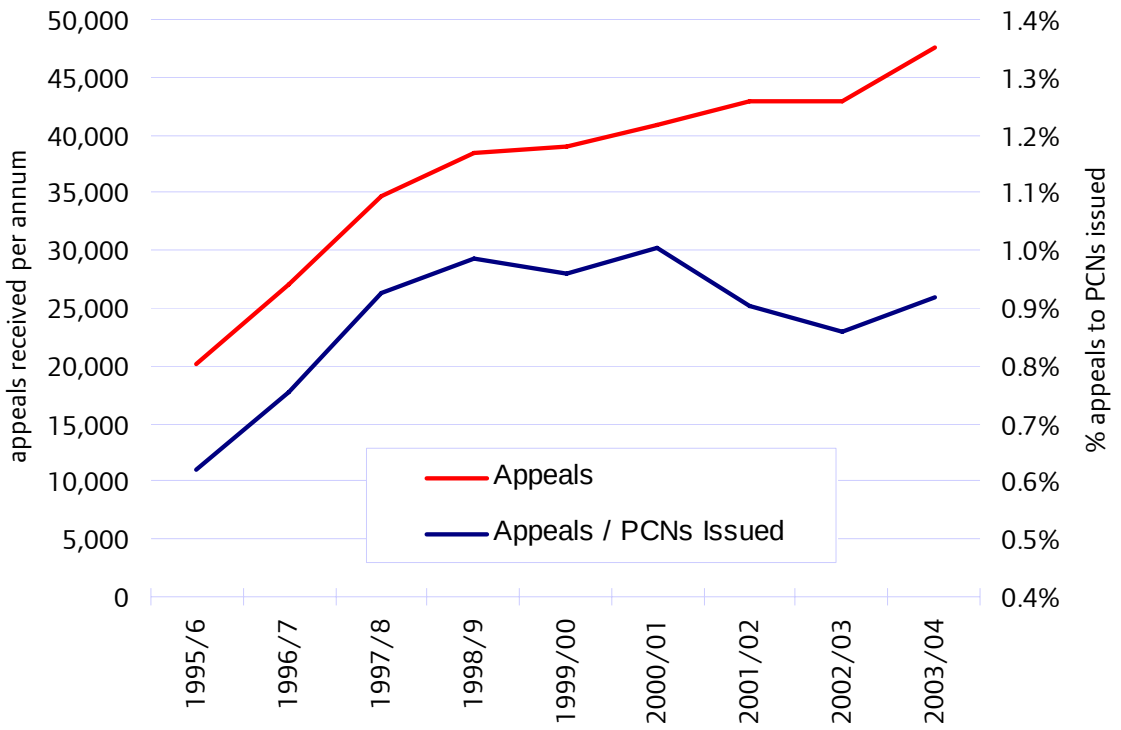
Enfield	169,477	12%	0.2%	36%
Ealing	168,991	9%	1.1%	65%
Waltham Forest	130,471	2%	0.3%	50%
Brent	116,708	7%	1.2%	59%
Redbridge	97,109	10%	0.3%	42%
Croydon	96,323	-2%	1.5%	42%
Harrow	93,658	6%	0.9%	42%
Richmond Upon Thames	83,198	2%	1.3%	69%
Hounslow	83,183	3%	1.1%	71%
Kingston Upon Thames	81,471	8%	0.4%	43%
Bromley	65,625	5%	1.4%	45%
Bexley	61,700	0%	0.6%	52%
Greenwich	58,350	0%	0.8%	40%
Hillingdon	56,254	0%	1.4%	65%
Sutton	52,281	3%	0.9%	51%
Havering	43,882	3%	1.6%	53%
Merton	42,262	1%	0.2%	50%
Barking & Dagenham	38,038	8%	0.9%	72%

Source: ALG, Transport and Environment Committee

Table 5.1 also gives information on the number of PCN appeals each borough lodged in 2003/04. For London overall, 0.9 per cent of PCNs issued were appealed, and 59 per cent of appeals were successful.

Logistics operators and retailers told GLA Economics different things about contesting PCNs. In some cases, companies pay all fines regardless of whether they are legitimate or not because of the time costs in contesting PCNs. Another operator has a policy of contesting all fines that they believe are defensible but they are only successful in around a fifth of these cases. One operator said they used to contest PCNs but now they pay them regardless because their appeals were not successful. However, others may contest every PCN they get with a high rate of success.

Figure 5.2: PCN appeals in London



Source: ALG, Transport and Environment Committee

Figure 5.2 shows that the number of PCN appeals received in London between 1995/96 and 2003/04 increased from 20,000 to 48,000 per annum. (Again, this data measures all vehicles, not just goods vehicles – more targeted data collection is needed to assess the impacts upon goods vehicles alone.) It also shows that the percentage of PCNs that were appealed increased from 0.6 per cent in 1995/96 to 0.9 per cent in 2003/04. However, Figure 5.2 does show that the rise in PCN appeals occurred between 1995/96 and 1998/99 – subsequently it actually declined.

While less than 1 per cent of PCNs are appealed, this does not mean that the other 99 per cent are paid. Table 5.2 demonstrates that only 56 – 62 per cent of PCNs are paid. A further 20 per cent have charge certificates served to them, while the remaining 20 per cent are written off (e.g. because the motorist cannot be traced) or are cancelled due to parking attendant error or successful representation.

Table 5.2: PCNs for on-street parking offences

	1999	2000	2001	2002
Paid within 14 days	46.3	48.6	47.7	42.6
Paid after 14 days but before service-of-charge certificate	12.7	13.3	11.5	10.8
Paid after charge certificate served			2.5	2.8
Sub-total paid	59	61.9	61.8	56.3
Cases going for adjudication	1.3	1.1	0.8	1.4
Number of certificates registered	17.6	18.5	21.5	20.9
No further action taken	22.1	18.5	15.9	21.4
Total	100	100	100	100

Red Routes

Red Routes account for about 5 per cent of London's roads, but carry approximately 33 per cent of the traffic. They are identified by single or double red road markings or by signs along the routes. The rules on Red Routes, which are supervised by TfL and not the boroughs, differ from those on borough roads. In particular, the places where it is possible to stop and load or unload are limited, to specific loading and unloading bays. A major concern on Red Routes is that enough bays are not provided or that they are not in the places most required.

The double and single red lines used on Red Routes indicate that it is prohibited to stop to park, load or unload, or to board or alight from a vehicle (except for licensed taxis or Blue Badge vehicles). For single red lines, the times of prohibitions are shown on nearby signs. However, a double red line always means no stopping at any time. On Red Routes, drivers may only stop to park, load or unload in specially marked boxes – adjacent signs specify the times, purposes and duration allowed. Boxes marked in red may only be available for the purpose specified for part of the day (e.g. outside of busy peak periods). Boxes marked in white are available throughout the day.

Until late 2004, parking was decriminalised only on borough roads. However, DfT completed the necessary legal processes to decriminalise parking on the TLRN from 15 November 2004. Parking on Red Routes continues to be enforced by the Metropolitan Police Service's traffic wardens using decriminalised powers. Additional enforcement using CCTV cameras is also planned.

Lack of loading and unloading bays

One of the complaints that delivery operators have about London is that there are too few bays for loading and unloading. This is of particular concern for London retailers as most are reliant on taking delivery of goods through their main doors, as they do not have off-street parking or loading facilities.

There is scope for greater guidance, by national or regional government, on the appropriate design and amount of infrastructure such as loading bays that should be provided in retail areas.

Summary

Delivery and service operators and retailers would like to see the following changes in the area of parking, waiting and loading:

- Legal delivery bays should be available for all stores. At present, delivery curfews and parking restrictions can sometimes make legitimate delivery nearly impossible.
- Different boroughs' enforcement of parking and loading regulations should be more consistent. Improving consistency might include a Code of Best Practice agreed by the industry and the boroughs. Both vehicle operators and parking attendants could follow the code to reduce the PCNs issued to those making legitimate deliveries.
- The number of loading bays should increase. Logistics operators would like the boroughs and TfL to review existing bays, to identify where more are needed and to extend loading and unloading provisions in these areas.
- Boroughs should check why certain locations are PCN hotspots – with the goal of improving provision (if a loading and unloading bay is needed) or enforcement (if other vehicles are parking illegally).
- Logistics operators want PCNs to be targeted at car drivers and not at delivery vehicles, which they view as doing legitimate and necessary work.

In addition to these proposed changes, policymakers should also consider service vehicles. Because service trips do not generally involve loading and unloading, service vehicles tend to receive less policy assistance in urban areas in terms of on-street parking than vehicles making on-street deliveries to the same premises.

There may also be scope for greater guidance, by national or regional government, on the appropriate design and amount of infrastructure required by freight operators (e.g. the amount of loading bays required for different types of retail streets). Most clearly, there would be certain benefits from more consistent application of parking regulations between different boroughs.

7. Congestion

Introduction

All of the freight operators ALG spoke and agreed that congestion is a major issue in London and that it adversely affects the cost of delivering in London. Congestion affects journey times and reliability. It also increases pollution, fuel consumption and the wear and tear of vehicles.

This chapter examines these issues. It first presents the evidence on congestion in London. It then looks at the possible strategies for reducing congestion, considering the potential effects on delivery operators and retailers. Finally, the chapter considers the effects of the congestion charge.

Evidence on congestion

The main reason for congestion on London's roads is simply the high level of traffic relative to the amount of road space. Table 6.1 shows vehicle flows by region for England. While the average flow for all England's major roads is 21,000 vehicles per day, in London it is 31,100. This means flows in London are around 48 per cent higher than the England average.

Table 6.1: Motor vehicle flows by road class, country and Government Office Region: 2003 ('000 vehicles per day)

	Major Roads			All major Roads	Minor roads		All roads
	Motorway	Rural	Urban		Rural	Urban	
London	96.4	29.1	28.8	31.1	1.5	2.7	6.1
North East	50.1	13.3	20.8	16.5	0.7	2.7	3.3
North West	71.4	10.6	17.7	21.6	0.9	2.1	4.1
Yorkshire & the Humber	65.6	12.2	18.5	19.4	0.9	2.0	3.5
East Midlands	92.6	13.5	19.1	18.2	0.9	2.1	3.5
West Midlands	79.7	11.4	20.2	20.7	0.9	2.8	4.0
East of England	82.8	17.8	18.1	22.0	1.2	2.6	3.7
South East	91.0	17.9	19.5	26.5	1.4	2.5	4.9
South West	66.1	10.9	19.7	15.5	0.7	2.2	2.6
England	78.0	13.7	20.7	21.0	1.0	2.4	3.9

Source: National Road Traffic Survey

Note: The calculation for the average daily flow is estimated by dividing the annual traffic estimate by the road length and the number of days in the year.

It is not then surprising that statistics show that London is significantly more congested than the rest of the UK. Table 6.2 shows congestion in urban areas as measured by DfT in 2000 (this is the most recent data available – DfT is currently changing the way it monitors and reports congestion but has not yet published new data). In this table, congestion is measured as the average delay encountered by a vehicle travelling one kilometre. This is calculated as the total delay encountered on parts of the TLRN (i.e. the difference between actual speed encountered and a free-flow reference speed) divided by the volume of traffic. Results show that delay is approximately twice as high in London compared to other urban areas of the UK.

Table 6.2: Congestion in large urban areas: 2000

	Survey coverage road length	Average peak speed	Congestion (seconds lost per vehicle km)		
	Km	Kph	Weekday peak periods	Weekday off-peak	All periods
Greater London	2151	25	65.8	45.5	35.7
Conurbations	2314	35.2	34.4	16.8	17.2
Other large urban areas	1161	33.8	36.9	18.4	21
All large urban areas	5626	30.4	46.4	27.6	24.8

Source: DfT

The next table shows the same data split between Central, Inner and Outer London. As would be expected, congestion is worst in Central London and less of a problem in Outer London. Interestingly, Central London congestion was found to be worse in weekday off-peak periods than in peak-periods, unlike the rest of London and the UK. The reason for this is probably linked to the relatively low share of Central London traffic that is made up of commuters and school-run journeys and the higher proportion made up of other types of trips. As this data was collected before the imposition of the congestion charge in 2003, it does not reflect any possible reduction of congestion in London since then.

Table 6.3: Congestion in London: 2000

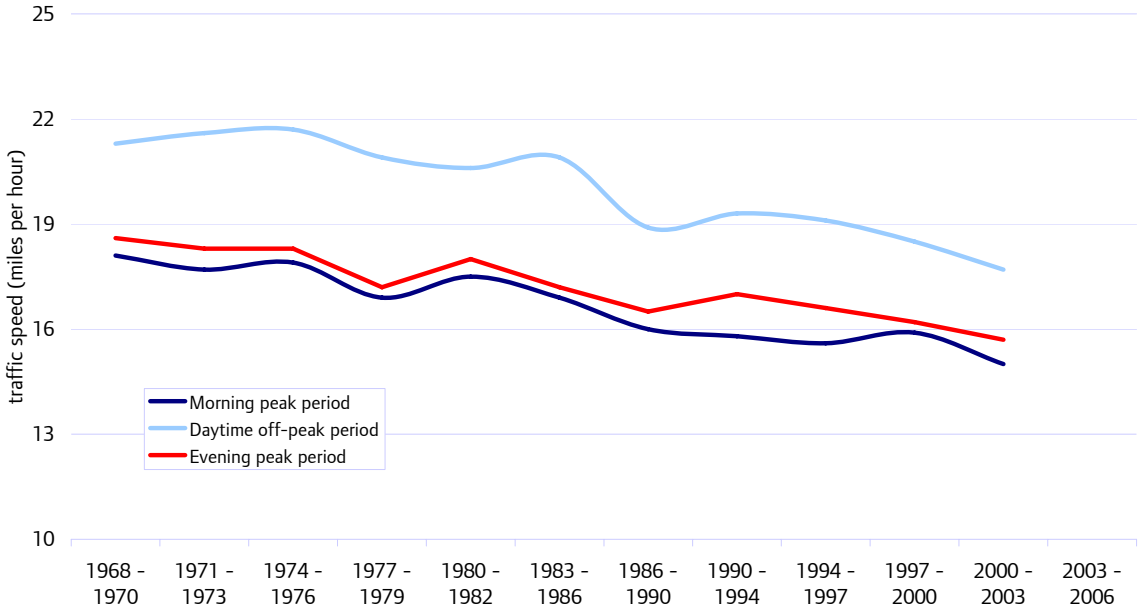
	Survey coverage road length	Average peak speed	Congestion (seconds lost per vehicle km)		
	Km	Kph	Weekday peak periods	Weekday off-peak	All periods
Central London	174	15.5	120	134.3	69.3
Inner London	462	18	109.8	68.1	53.7
Outer London	1516	29.5	50.1	30.3	27.1
Greater London	2151	25.0	65.8	45.5	35.7

Source: DfT

To compile the congestion data, the DfT calculated reference speeds (the average speed in the absence of congestion). They did this by conducting sample journeys at night when the roads were mostly free of traffic. The survey cars collected data every two seconds, enabling DfT to look at the proportion of time spent at different speeds. In Central London, the dense roads and high concentration of traffic controls (traffic lights and roundabouts) means that even at night, almost 25 per cent of time is spent at speeds less than 8 kph (5 mph). However, when traffic is light, over 40 per cent of time is spent at over 40 kph (25 mph). By comparison, during weekdays almost half the time is spent at less than 8 kph and less than 10 per cent at speeds above 40 kph.

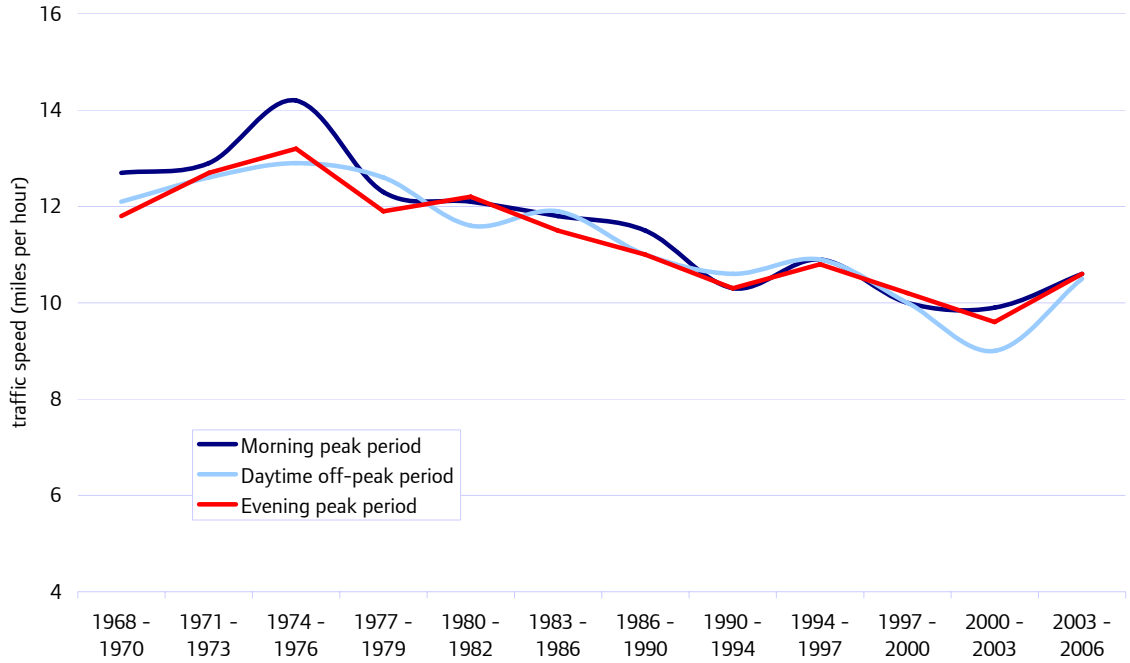
Given the high levels of congestion in London, average speeds are significantly lower than elsewhere in the UK. They also declined over the past twenty years. Figures 6.2 and 6.3 show average London traffic speeds since 1968.

Figure 6.2: Average traffic speeds – Greater London



Source: Transport for London

Figure 6.3: Average traffic speeds – Central London



Source: Transport for London

Note: The reason the figure covers 2003 – 2006 is because Central London will not be surveyed again until 2006.

The charts show that traffic speeds in London, before 2003, have been decreasing at all times of the day both across Greater London and within Central London. However, the

latest data for Central London (2003 – 2006) – compiled after the introduction of the congestion charge – is more encouraging, showing a small increase in speeds compared to the previous data survey (2000 – 2003).

Reducing congestion

The evidence shows that congestion in London is much worse than in the rest of the country. Congestion affects operators not only in terms of slow journey times, but also in the uncertainty of times that it creates. In turn, this affects retailers, who compensate for this uncertainty by increasing the amount of inventory and fleet capacity.

Congestion means additional delays and higher costs for those making deliveries or service trips on London's roads. The main reason for congestion is also clear – it is the result of high traffic levels on limited road space. Given London's population and commercial density, this is to be expected.

To reduce congestion, it is necessary to either:

- Increase the amount of road space.
- Implement measures to improve traffic flow and increase average speeds, even though traffic levels and road space are unchanged.
- Reduce the amount of traffic on the roads.

The first option is largely restricted in London, as opportunities for new road building are severely limited and lack political support.

The second involves trying to improve flow and capacity on existing roads. Some gains in this area are probably possible – involving the improvement of traffic signal phasing, coordination of street-works, keeping box junctions clear and so on. However, without accompanying policies to limit traffic growth, any benefits are likely to be short term, and eventually overtaken by continuing growth in traffic levels. Additionally, issues such as traffic signal phasing are themselves a compromise between the needs of traffic and those of pedestrians, so they do not present simple gains that can be derived at no cost. For example, retailers may not be keen on changes that favoured traffic ahead of pedestrians on busy shopping high streets, even if this did help improve traffic flow overall.

The third option – of reducing traffic levels – is very difficult given that many economic market forces pull in the opposite direction towards increased amounts of traffic on London's roads. Factors here include the growth in Londoners' incomes, in London's population and in its commercial activity.

Given that these trends point towards increasing traffic within London, it becomes clear that policy intervention is necessary to prevent the continued increase of road congestion. Investing in public transport is one policy that will significantly help. Even now, traffic is only kept moving at its current level because the vast majority of people

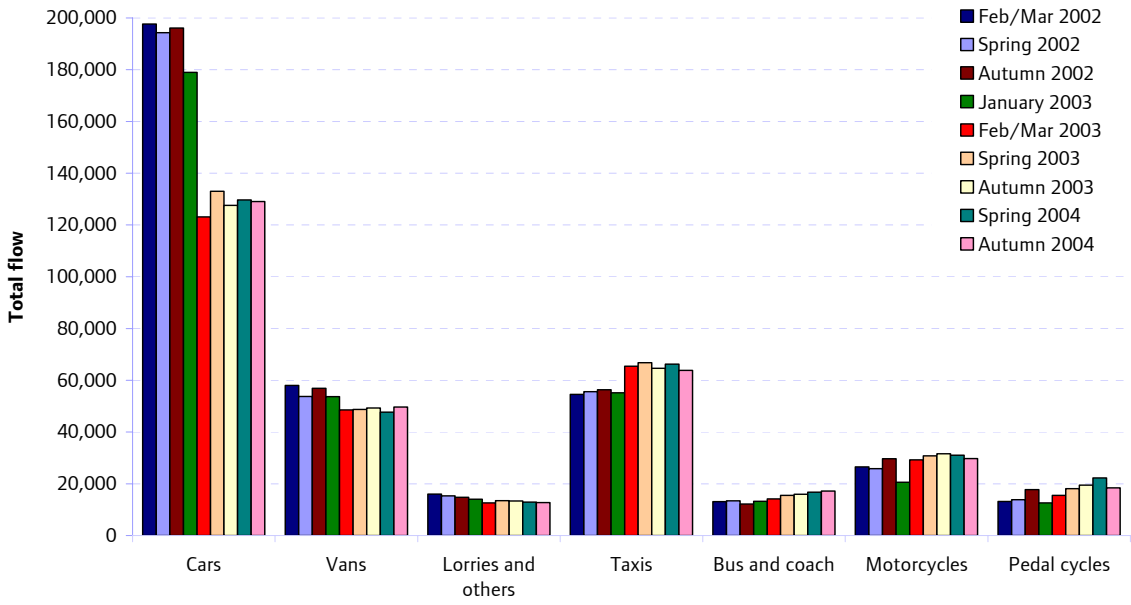
travel into Central London by public transport. Adding to public transport capacity, particularly rail, would ease traffic on the roads.

Congestion charging is another type of policy that can reduce traffic levels. It does so by raising the costs of car travel compared to alternatives at the most congested times of the day. The Congestion Charging Zone (CCZ) is now established in Central London and the evidence shows that it has succeeded in reducing congestion levels (see Figures 6.4 and 6.5). With this in mind, one potential measure for combating congestion would be to introduce London-wide road pricing.

With car travel accounting for the vast majority of traffic in London, measures that reduce car traffic will benefit freight operators. However, given retailers' reaction to the Central London congestion charge, it is likely that they would not support further policy in this area. Retailers are concerned that congestion charges decrease their retail sales by reducing numbers of car-based shoppers, although shoppers in London are much more likely to use public transport than in other parts of the UK. While most shoppers in Central London use other transport methods, the proportions who use their cars is likely to increase in line with their distance from the centre of London.

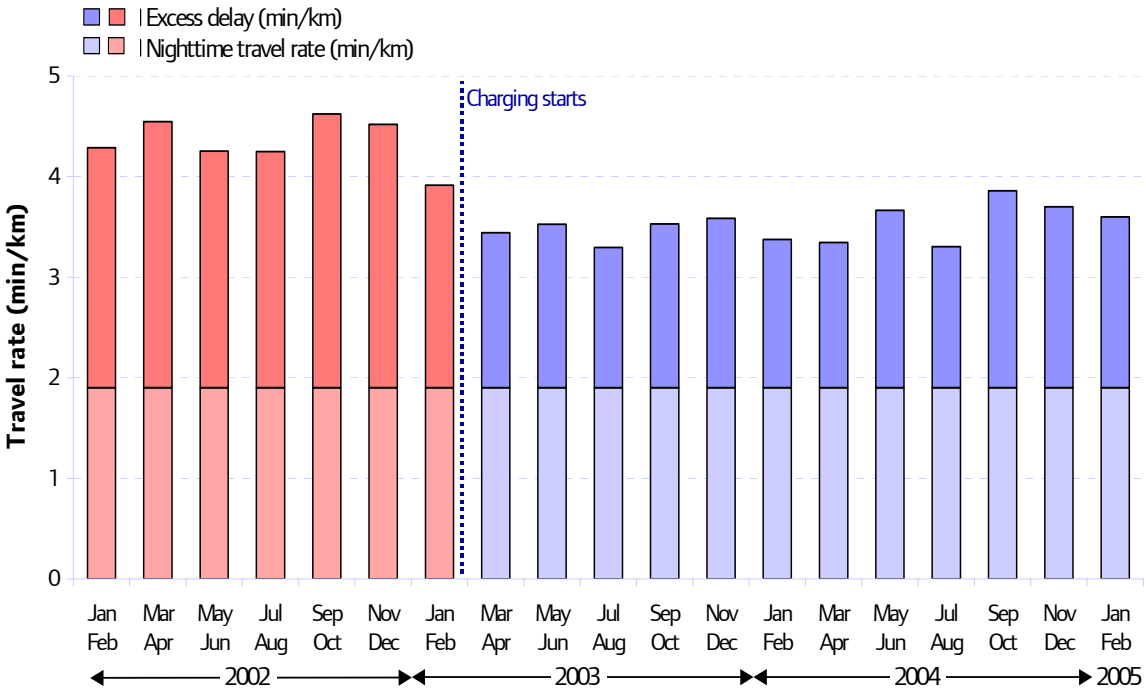
The issue of congestion in London provides some conflicting outcomes for retailers. On one hand, they need their shops to be as accessible as possible to shoppers during opening hours. On the other hand, they would benefit from reduced congestion in terms of service and delivery access. Paradoxically, the increasing number of goods and service vehicles across most of London's streets (although not in Central London) add to the congestion that prompts policy measures that may affect the ability of car-based shoppers to access retail areas.

Figure 6.4: Traffic entering the CCZ during charging hours



Source: TfL, April 2005, Central London Congestion Charging Impacts Monitoring, Third Annual Report, p23.

Figure 6.5: Congestion in the CCZ during charging hours



Source: TfL, April 2005, Central London Congestion Charging Impacts Monitoring, Third Annual Report, p 23.

Note: This publication includes many indicators showing the reductions in congestion that have occurred within the CCZ since 2003.

In this context, a move towards more goods and service vehicles on the road outside of shopping hours, and fewer on the roads during opening hours, would appear a positive outcome for the retail sector. At the moment, such an outcome is limited by regulation (delivery curfews) but also because most retailers, especially the small ones, prefer to receive deliveries during opening hours.

Congestion charging

Looking ahead, it is difficult to see how congestion will do anything but worsen in London unless some car use is discouraged through fiscal measures. The question then is whether goods and service vehicles should be exempted from such charges. FTA believes they should be exempt from the congestion charge, given the essential nature of their work within London. (One difficulty with this idea is that many LGVs are often used as private cars rather than for commercial work.)

The economic argument for goods and service vehicles paying the congestion charge is operators will increase their efficiency through improvements in the average speed of vehicles (as a result of traffic levels reductions) and in the reliability of journey times. Operators therefore gain operational cost savings in return for paying the charge. This

illustrates the importance of generating timesavings to ensure that congestion charging does not have a detrimental economic effect.[35]

Congestion charging originally added a £5 cost per day to all vehicles entering the zone, but this rose to £8 (or £7 for fleet vehicles) in July 2005. On a yearly basis, this cost is now £2,000 per vehicle (or £1,750 for fleet vehicles) if that vehicle enters the zone each day. The yearly cost of operating a typical lorry including wages, fuel and so on is approximately £40,000 for a 3.5-tonne vehicle rising up to £80,000 for a 40-tonne vehicle.[36] Paying the congestion charge daily adds around 2.5 – 5 per cent to yearly vehicle operating costs.

However, in the context of a competitive market, this cost is passed on to retailers, who in turn pass it on to consumers in the form of higher prices for goods. This means the economic burden of the charge should end up falling upon consumers rather than logistics companies or retailers.

It is true that markets do not always operate efficiently and there is anecdotal evidence that some small retailers may be adversely affected by the charge (in terms of the effect on deliveries).[37] Unlike large retailers – who either have their own vehicles or operate through one or more large logistics companies – small retailers are more likely to have deliveries and services carried out by a more dispersed range of independent operators. Small retailers claim that in some cases operators pass on the cost of the charge to each of their customers, meaning the operator makes a profit while the retailers absorb the charge many times over. If this is true, then this points to a lack of competitiveness within the delivery industry, and this would need addressing to rectify the situation.

When the Commission for Integrated Transport commissioned a survey of retailers within the CCZ in 2003, they found that small retailers were more concerned with the costs of the scheme and less likely to see any benefits.[38] Large retailers found it easier to absorb extra costs and could also see the benefit of reduced congestion on their logistics operations. The results from their survey of logistics operators were similar. If the operator could either pass on the cost or recognise operational improvements to their business, then they were more in favour of the scheme.

Overall, reactions to the congestion charge illustrate the contradictory aspects of the congestion problem for retailers, for whom ensuring access of customers is probably more important than ensuring congestion-free access for suppliers. The fact remains that congestion in London is a key problem for those involved in delivery and service trips and is likely to remain an issue as growth in traffic continues.

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[35] Allen et al, University of Westminster, January 2003, *Modelling policy measures and company initiatives for sustainable urban distribution – Final Technical Report*

[36] Road Haulage Association, 2004, *Goods Vehicle Operating Costs*

[37] Commission for Integrated Transport, November 2003, *The impact of congestion charging on specified economic sectors and workers*

[38] Commission for Integrated Transport

Summary

Congestion is a significant problem in London, with high traffic flows and limited road space resulting in average speeds of only around 10 mph in Central London and 15 mph in Greater London. This creates significant delays for delivery and service vehicles operating in London.

While the problem is easy to identify, the solutions are not so easy to implement. Given the very limited opportunities for new road building in London, reductions in congestion must arise either from improvements to the existing road system, that increase capacity from the existing space, or from reducing traffic levels.

For delivery and service vehicles, policies that reduce the number of cars on London's roads and ease congestion for goods vehicles would appear to be a satisfactory option. However, many retailers gain business from car-based shoppers and may not support such a policy. The easing of delivery-hour restrictions so more deliveries can be made in early mornings or late evenings is the policy that benefits both logistics operators and retailers, although it may not be popular with some London residents.

In addition to determining the best policies to deal with congestion, the related issue is how such improvements would be paid for. The case for delivery vehicles being subject to the congestion charge is that they benefit from the timesavings. FTA, however, argues that delivery vehicles should be exempt because their trips are essential to the economy and cannot be diverted to other transport modes.

8. Current policy initiatives

Introduction

Chapters 4, 5 and 6 discussed some of the major issues concerning delivery and service trips to retailers in London. This final chapter considers the policy initiatives currently in place, or being planned, to improve the situation for goods and service deliveries within London. It also offers thoughts on the correct framework in which to devise this policy, highlighting the conclusions reached by the University of Westminster in its examination of urban freight issues.

Policymaking on urban freight

The authors of the University of Westminster research believe that policymakers in central and local government need to develop a better understanding of current urban goods and service vehicle activities, and their role in the economic vitality and efficiency of urban businesses and the urban area itself. This requires a two-fold change in perspective from:

1. The traditional view of seeing freight transport as a problem to seeing it as an essential activity.
2. Focusing attention and policy on individual vehicles activity to the adoption of a supply chain view.

The Mayor's Transport Strategy recognises these required changes.

It is necessary to understand why vehicle activity takes place in the manner that it does to ensure that policy measures, which alter that pattern of activity, are not detrimental to the urban economy. This includes considering what goods and service activities are provided and what decision-making factors determine the time, frequency and location of the activity.[39]

The university's research also emphasised that policymakers need to develop greater understanding of the environmental and social impacts associated with goods and service vehicle activities in particular urban areas. Policymakers should preferably consider these factors in consultation with interested parties such as the industry and research community. They need to determine which aspects of urban freight transport activity to change to effect the desired improvements (e.g. is it vehicle size, trip numbers, kilometres performed, location or times of activities?). Doing so is prerequisite to setting suitable and effective urban freight transport policies.[40]

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[39] Allen et al, University of Westminster, March 2000, *A framework for considering policies to encourage sustainable urban freight traffic and goods/service flows*

[40] Allen et al, University of Westminster, March 2000, *A framework for considering policies to encourage sustainable urban freight traffic and goods/service flows*

However, the University's research also highlighted the need for policymakers to be aware of who benefits from any change. While some initiatives would produce net financial or operational benefits in the supply chain as a whole, one party could actually experience increased costs as a result of the initiative. (For example, out-of-hours deliveries mean retailers must pay extra staff to help unload delivery vehicles and distribute goods within the store.) If one party does not receive benefits, it creates a barrier to the implementation of initiatives that could, in macro terms, have climate change and economic benefits. It is important to establish ways to share benefits between the supply chain parties so such initiatives can be implemented without obstacle.

For example, many potential company initiatives require agreement and operational changes when goods are delivered. However, if a third-party freight transport company delivers on behalf of a supplier or wholesaler, then the transport company's customer is in fact the sender rather than the receiver of the goods. In this situation, communication between the transport company and the receiving premises tends to be limited or non-existent. This lack of a contractual arrangement between the transporters and receiver makes it difficult to discuss and reach agreement about changing arrangements such as delivery times and the need for checking and signing for deliveries.

The reality of this problem is backed up by a study in Edinburgh, which found that most retailers have no idea when their deliveries will arrive – even when their own company does the deliveries.[41]

University of Westminster research also showed that there is potential for both commercial and environmental improvements if distribution companies together with their supply chain partners could identify ways to either:

- reduce the distance travelled and driving times (through the use of IT, internal planning or supply chain cooperation)
- reduce collection and delivery times (through closer working relationships with senders and receivers).42

Planned London policy measures

London Freight Plan

TfL is currently coordinating the development of LFP, a London-wide freight plan. Work began in late 2004 and is ongoing. The LFP Working Group, made up of stakeholders from government, industry and interest groups, developed a strategic choices paper that was put forward for consultation with members of the London Sustainable Distribution Partnership in May 2005. This is the start of the debate on how the LFP is to be developed, and there will be further opportunity for stakeholders to contribute as development continues.

[41] Result from MSc study quoted by Mike Slinn, January 2005, MVA at BESTUFS II Workshop, London

[42] Allen et al, University of Westminster, January 2003, *Modelling policy measures and company initiatives for sustainable urban distribution – Final Technical Report*

The vision for the LFP is: 'The safe, reliable and efficient movement of freight and service trips to, from, within, and, where appropriate, through London to support London's economy, and in balance with the needs of other transport users, London's environment and Londoners' quality of life.'[43]

The LFP is designed to support the *The London Plan*[44] which runs through to 2016. However, the emphasis of the LFP is on nearer-term activity. Although it will be a non-statutory document, it will feed into any update of *The London Plan*, and any revision of the Mayor's Transport Strategy.

The LFP is clearly going to be significant in providing the framework and guidance to deal with the problems highlighted in this report.

The current objectives of the LFP are to:

- support London's growth in population and economic activity
- improve the efficiency of freight distribution and servicing within London
- balance the needs of freight transport and servicing with those of other transport users and other demands for London's resources
- improve air quality in London by reducing emissions of local air pollutants and CO2 caused by freight and servicing
- improve quality of life in London by minimising the impacts of noise and vibration on the public
- improve health and safety in London by reducing the number of deaths and injuries associated with freight movement and servicing
- improve quality of life in London by reducing negative impacts of freight and servicing on communities.[45]

The priorities are:

- reliability – enabling more reliable, efficient and secure delivery and servicing
- matching demand and capacity – influencing the time of day, frequency and length of trips and, where practicable, the mode used
- safety – minimising casualties involving road freight by education, communication and action
- the environment - minimising the impact of freight on the environment by influencing the number of trips, technologies and fuels used

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[43] TfL - London Freight Plan Strategic Choices Paper, June 2005
http://www.tfl.gov.uk/tfl/downloads/pdf/Freight-Plan-Strategic-Choices.pdf

[44] Greater London Authority, 2004, *The London Plan: The Mayor's spatial development strategy for Greater London*

[45] London Sustainable Distribution Partnership Freight Plan Working Group, 23 May 2005, *Strategic Choices for Freight in London – Pre-read for London Sustainable Distribution Partnership meeting*

- communications and organisation – creating structures and processes to disseminate best practice, and champion freight in London
- the planning process – making freight and servicing a key part of decisions on how to develop London.

The LFP Working Group is currently considering a wide range of policies for inclusion in the LFP. These are being prioritised and investigated further before the plan is finalised, which is expected in 2006. A full overview of these policies is available on the TfL website.[46] This report discusses some of these projects which are already underway and which have a strong relevance to the retail industry.

Improved provision of traffic information

TfL's development of the London Travel Information Systems includes the London Delivery Planning System. This will make available information on where and when legal loading can take place, enabling delivery operators to plan their activities to reduce the number of PCNs. The system will also use planned road works information and real-time traffic conditions to advise on the most efficient (quickest and most reliable) route. A separate element will identify routes that comply with Permit Condition 5 of the LLCS.

TfL is also looking to incorporate freight needs into their Journey Planner. In particular, they are developing a legal loading information system as an integrated feature of the Journey Planner.

Specifically on retail, TfL is seeking to produce an advice note including concepts of loading plans and delivery hot spots to better provide for the service and delivery needs of retailers.

Moovit parking system

Moovit is a driver communication system that allows drivers making deliveries to be contacted at all times when away from their vehicles. An electronic transmitter button on the passenger window of the delivery vehicle is linked to a radio receiver carried by the driver. When a parking attendant approaches the unattended vehicle, he or she can simply press the transmitter button to recall the driver. The key benefit is that, at present, attendants have no way of knowing whether a driver is carrying out a legitimate delivery if a vehicle is unattended. With the Moovit system, the attendant can recall the driver to the vehicle to demonstrate the legitimacy of their delivery. This system should allow for greater cooperation between parking attendants and delivery drivers, reducing the number of incorrectly issued PCNs.

Moovit was successfully piloted in Manchester during 2004 and subsequent trials have been taking place in London.

[46] TfL, Report Library. View: www.tfl.gov.uk/tfl/initiatives-projects/freight/report.shtml

LLCS trials

TfL will conduct a LLCS noise trial to assess if vehicles of 18 tonnes or more can travel off the ERN without a permit. The trial will acts as an incentive for best practice and driver training.

Other projects

TfL's freight team is currently working on other projects, including

- the development of freight transport plans
- the development of workplace travel plans
- the production of best practice guidance
- a driver training initiative that uses a driver training simulator and identifies PCN hotspots.

TfL are also considering the potential to provide loading facilities within bus priority lanes as part of their wider Network Development Planning for London improvements to the transport network.

The ALG meanwhile, will develop and publish a revised version of the Code of Practice on Parking Enforcement. This aims to produce greater consistency in parking enforcement across the London boroughs. They will also produce a revised Parking Attendants' Handbook.

Logistics operators will also benefit from wider transport policy measures that limit congestion on the roads. Congestion charging, along with all initiatives that encourage use of public transport, walking and cycling among the public, help to free road space and improve journey times for service and delivery vehicles. Ongoing policy on improved traffic management initiatives and road maintenance will again aid logistics operators.

Freight quality partnerships

One policy area that has developed in recent years with the help of boroughs and other stakeholders has been the setting up of freight quality partnerships with the first occurring in West London.

The West London Freight Quality Partnership (WLFQP)[47] provides members in West London with the opportunity to identify ways in which to improve the efficiency of the freight network, whilst reducing its environmental impact by taking a sustainable approach to moving goods.

WLFQP was launched on 3 April 2003. There are currently 20 members; membership is open to all parties who subscribe to the objectives and have an involvement in freight issues in West London. The WLFQP Steering Group includes representatives from West London boroughs, BAA, FTA, TfL and West London businesses and organisations.

[47] http://www.westlondonfqp.com/

WLFQP objectives are:

- To develop understanding of distribution issues and problems in the West London sub-region (the boroughs of Harrow, Brent, Hillingdon, Ealing, Hounslow, and Hammersmith & Fulham).
- To promote constructive sustainable solutions that reconcile delivery operators' need for access (particularly in urban centres and at Heathrow) with local economic, environmental and social concerns.
- To promote the role of working practices and structured risk management in freight delivery.

Three workshops were held during June 2003, which culminated in the development of an Action Plan. The Action Plan approved by the Steering Group includes several projects and supporting actions towards achieving WLFQP objectives. The projects are to:

- Provide an information system for deliveries (e.g. giving information on loading bays, parking restrictions, etc).
- Improve signage for drivers in Park Royal.
- Implement the local management of delivery bays in Ealing town centre.
- Provide overnight parking.
- Establish priority allocation of road space.

The supporting actions are to:

- Promote best practice through the WLFQP website.
- Maintain communication with WLFQP members and the wider freight community on West London freight issues.
- Advise borough planners on service standards in new developments.
- Assess opportunities for rail and water-based freight.

The WLFQP conducted research on delivery activity in Ealing's town centre.[48] Ealing's town centre suffers from severe traffic congestion and from difficulties in servicing local businesses, many which have no off-street areas for loading and unloading. The project's first stage was to identify hot spots and to assess opportunities for involvement. This involved a street inventory of waiting and loading restrictions and off-

[48] WLFQP found that 834 vehicles parked on-street over 12 hours in central Ealing – 129 were LGVs and 42 were HGVs. Overall, it found that 50 per cent of all parking was illegal and 65 per cent of deliveries were made illegally. It also found that 2.5 times more deliveries were made on a weekday than a Saturday and that there were very few overnight deliveries. The main service difficulties that retailers identified were due to road congestion (43 per cent of all businesses), insufficient off-street loading facilities (61 per cent), inconsiderate parking obstructing kerbsides (42 per cent) and the existing loading restrictions on kerbsides (60 per cent). Only a few retailers (14 per cent) said that they could handle deliveries out of hours, i.e. before 7 am or after 7 pm. However, 61 per cent of retailers were enthusiastic about the self-management of on-street delivery bays.

street areas, a questionnaire survey of local business and a review of town-centre CCTV footage.

The next stage is to identify physical improvements, such as inset loading bays, and to design a pilot project for a self-management scheme. The scheme will be based around on-street loading bays for sections of roadway fronted by retailers that agree to cooperate. Usage of these bays would be run through an automated phone system or SMS texting. Drivers would pre-book a bay for delivery to a business, and the system would be enforced using CCTV.

There are aims to set up a similar freight quality partnership for East London.

Local Implementation Plans (LIPs)

From 2005, London boroughs must each submit a LIP setting out how they propose to implement the Mayor's Transport Strategy in their area. The Strategy also requires increased monitoring of parking and loading data, with each borough producing a Parking and Enforcement Plan.

In its LIP, TfL's priority area for implementation is:

> 'Improving the working of parking and loading arrangements to provide fair, reasonable and effective enforcement of regulations, recognising the needs of business for service and delivery as well as other road users, thus contributing to easing congestion and improving access to town centres and regeneration area.'[49]

This means boroughs must achieve improvements in compliance with parking and loading regulations from a baseline to be agreed between boroughs and TfL. As an additional part of the LIP process, boroughs must conduct surveys of retailer satisfaction with the fairness of enforcement of parking and loading regulations.

[49] Tfl 2004 "Local Implementation Plans - Making Better Provision for Deliveries and Servicing"

Low Emission Zone

Another future policy, currently being considered, that will have implications for retailers and their logistics operators is the proposed creation of a Low Emission Zone (LEZ) for London.

The LEZ would cover all of the Greater London area excluding motorways. It would discourage the entry of older vehicles (with higher levels of pollution) from the London area, reducing reduce road transport emissions and improving air quality.

The background to the LEZ is the National Air Quality Strategy (NAQS), which included Government objectives for nine main air pollutants. The Government is addressing two of these pollutants at national and European levels, but responsibility for the remaining seven is devolved to a local level. The Mayor has a statutory duty to work to meet the national air quality objectives for the seven locally managed pollutants in Greater London. London is expected to meet the objectives for five of the seven pollutants, but on current trends it is unlikely to achieve its objectives for nitrogen dioxide and particulate matter.

AEA Technology plc[50]carried out a Feasibility Study between 2001 and 2003 to assess the options for introducing a LEZ. The study found that it would be most effective to target heavier, diesel vehicles, and potentially LGVs, because they typically emit more pollution per kilometre driven. There is no intention to target cars with the proposed LEZ.

From early 2008, the proposed LEZ would affect HGVs over 7.5 tonnes. From mid-2008, the proposed LEZ would affect MGVs from 3.5 to 7.5 tonnes, as well as buses and coaches.

Potentially, the LEZ could be extended to cover LGVs with diesel engines from 2010. TfL will analyse this option further before making a decision.

The LEZ would affect all vehicles of these types that entered the zone, wherever they are registered. Under this scheme, vehicles that do not meet the required emission standards would be charged for entry to the zone, while vehicles that meet set standards would not. In terms of retail logistics, the introduction of the LEZ would add additional costs to those hauliers whose vehicles would not meet the required specifications. They would either have to meet the one-off cost of updating the vehicle to the required standard or would have to pay the charge for each trip within Greater London.

More details on the LEZ are available on the TfL website.[51] TfL is currently planning consultation with the public and stakeholders for early 2006. Vehicle operators,

[50] The London Low Emission Zone Feasibility Study - AEA Technology plc, July 2003
[51] TfL, Low Emission Zone. View: www.tfl.gov.uk/tfl/low-emission-zone/default.asp

businesses and the general public will be able to express their views on the principle of the proposed LEZ and its likely key features.

Summary

When considering policy on urban freight, freight transport must be seen as an essential activity rather than a problem. Policymakers need to consider supply chain issues to ensure that measures that alter the pattern of activity are not detrimental to the economy.

TfL has set up a new freight team, which is currently putting the LFP in consultation with stakeholders. This will set the framework and guidance so that future transport policy addresses the issues highlighted in this report.

Among the initiatives currently being tested in London are improvements to traffic information availability and the setting up of freight quality partnerships. A LEZ for Greater London is also being considered.

9. Conclusion

Within London, freight usage has been characterised by a reduction in the number of HGVs (including MGVs) over the past two decades. However, the growth in the permitted weight of HGVs over this time has enabled the average payload per HGV trip to increase.

The other major change since the 1980s has been a very large increase in the number of LGV trips both within London and the UK. In London, the number of LGVs crossing the Outer London cordon doubled between 1980 and 2001. Smaller vehicles are, of course, better suited to many of London's roads than large vehicles. However, the main force behind this trend has been changes in stockholding patterns that have led to more frequent and smaller goods deliveries to urban premises.

Around 10 – 15 per cent of freight traffic is linked to the retail industry. London's density means that deliveries here differ significantly to those elsewhere in the UK. In particular, there is more-on-street delivery, a greater use of smaller vehicles and more delivery curfew restrictions. There is also a much greater chance of being issued with a PCN in London.

Policymakers dealing with urban freight should see it as an essential activity rather than a problem. They need to consider supply chain issues so that policy measures that alter the pattern of activity are not detrimental to the economy. Trends in the retail logistics industry include a move to shorter lead times, reduced stock levels and smaller, more frequent deliveries.

One frequent complaint from retailers and logistics operators concerns the restrictions applied to their delivery hours and routes through the LLCS and delivery curfews. The combined effect of these restrictions forces more deliveries into peak hours when congestion on the roads is at its worst. This adds to delivery costs and can also affect store operations (e.g. by not having fresh goods on the shelves before opening).

The widespread variability of delivery curfew timings may or may not be justified by local variations in circumstances. There would be clear benefits if an independent objective review were carried out, leading to new guidance on the use of conditions and section 106 agreements if appropriate.

Reducing the length of the restrictions, or easing or abolishing the LLCS, could reduce costs for retailers and logistics operators. However, the restrictions exist to protect London residents from excessive noise at night. Policymakers need to weigh up the positive economic benefits against the negative noise pollution effects when determining future policy.

In terms of parking, the inconsistency between boroughs' parking regulations is clearly a problem for logistics operators. There would certainly be benefits from more consistent application of parking regulations across different boroughs. There may also be scope

for greater guidance, by national or regional government, on the appropriate design and amount of infrastructure required by freight operators. For example, the number of loading bays required for different types of retail street.

Some efforts to improve the situation in relation to parking are currently being tested. These include improvements to traffic information availability and the setting up of freight quality partnerships.

In addition to these efforts, policymakers need to give more consideration to service vehicles. Because service trips do not generally involve loading and unloading, vehicles providing services to urban premises tend to receive less policy assistance in terms of on-street parking than delivery vehicles.

Congestion is clearly a significant problem in London and it creates major delays for delivery and service vehicles. While the problem is easy to identify, the solutions are not so simple. Given the very limited opportunities for new road building, congestion can only be reduced by improving the existing road system to increase capacity from the existing space, or by reducing traffic levels.

For delivery and service vehicles, policies that reduce the number of cars on London's roads would appear to be a satisfactory option. However, many retailers derive a share of their business from car-based shoppers and may not support such policies. Easing delivery hour restrictions so more deliveries can be made in the early morning or late evening seems a policy that would benefit both logistics operators and retailers, although it may not be popular with some London residents.

TfL is currently working with stakeholders to put together the LFP for completion in 2006. This will set the framework and guidance to ensure that future transport policy addresses the issues highlighted in this report. The Freight Plan Working Group has identified the following priorities:

- Reliability – enabling more reliable, efficient and secure delivery and service.
- Matching demand and capacity – Influencing the time of day, frequency and length of trips and, where practicable, the mode used.
- Safety – minimising casualties involving road freight by education, communication and action.
- The environment – minimising the impact of freight on the environment by influencing the number of trips, technologies and fuels used.
- Communications and organisation – creating structures and processes to disseminate best practice, and championing freight in London.
- The planning process – making freight and service a key part of decisions around how London is developed.

There is also TfL's plan to introduce a LEZ for Greater London in order to meet nitrogen dioxide and particulate matter emissions standards. The LEZ could be implemented by 2008. Retailers and logistics operators whose vehicles do not currently meet the

required standards would need to pay the financial costs of updating their vehicles or pay a charge for each trip into or within London.

Abbreviations

ALG	Association of London Government
ERN	Exempt Route Network
DfT	Department for Transport
LEZ	Low Emissions Zone
LFP	London Freight Plan
FTA	Freight Transport Association
HGV	Heavy Goods Vehicle
LGV	Light Goods Vehicle
MGV	Medium Goods Vehicle
PCN	penalty charge notice
TfL	Transport for London
TLRN	Transport for London Road Network

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Hindi

यदि आप इस दस्तावेज की प्रति अपनी भाषा में चाहते हैं, तो कृपया निम्नलिखित नंबर पर फोन करें अथवा नीचे दिये गये पते पर संपर्क करें

Vietnamese

Nếu bạn muốn có văn bản tài liệu này bằng ngôn ngữ của mình, hãy liên hệ theo số điện thoại hoặc địa chỉ dưới đây.

Bengali

আপনি যদি আপনার ভাষায় এই দলিলের প্রতিলিপি (কপি) চান, তা হলে নীচের ফোন্ নম্বরে বা ঠিকানায় অনুগ্রহ করে যোগাযোগ করুন।

Greek

Αν θέλετε να αποκτήσετε αντίγραφο του παρόντος εγγράφου στη δική σας γλώσσα, παρακαλείστε να επικοινωνήσετε τηλεφωνικά στον αριθμό αυτό ή ταχυδρομικά στην παρακάτω διεύθυνση.

Urdu

اگر آپ اِس دستاویز کی نقل اپنی زبان میں چاھتے ھیں، تو براہ کرم نیچے دئے گئے نمبر پر فون کریں یا دیئے گئے پتے پر رابطہ کریں

Turkish

Bu belgenin kendi dilinizde hazırlanmış bir nüshasını edinmek için, lütfen aşağıdaki telefon numarasını arayınız

Arabic

إذا أردت نسخة من هذه الوثيقة بلغتك، يرجى الاتصال برقم الهاتف أو مراسلة العنوان أدناه

Punjabi

ਜੇ ਤੁਹਾਨੂੰ ਇਸ ਦਸਤਾਵੇਜ਼ ਦੀ ਕਾਪੀ ਤੁਹਾਡੀ ਆਪਣੀ ਭਾਸ਼ਾ ਵਿਚ ਚਾਹੀਦੀ ਹੈ, ਤਾਂ ਹੇਠ ਲਿਖੇ ਨੰਬਰ 'ਤੇ ਫ਼ੋਨ ਕਰੋ ਜਾਂ ਹੇਠ ਲਿਖੇ ਪਤੇ 'ਤੇ ਰਾਬਤਾ ਕਰੋ:

Gujarati

જો તમને આ દસ્તાવેજની નકલ તમારી ભાષામાં જોઈતી હોય તો, કૃપા કરી આપેલ નંબર ઉપર ફોન કરો અથવા નીચેના સરનામે સંપર્ક સાધો.

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