

# Greater Manchester's Clean Air Plan to tackle Nitrogen Dioxide Exceedances at the Roadside

## Appendix A - Technical Note: Vehicle Sector Review – HGV Sector

APPROVED

June 2022

# 1. Introduction

## Background

- 1.1 After the initial OBC submission, a series of technical notes were published setting out the results of analysis and research carried out to better understand the vehicles in scope for the scheme.
- 1.2 For heavy goods vehicles (HGVs), this included, in particular, Technical Note 3: Analysis of the Freight Market, Technical Note 12: Evidence of the impact of a 2021 implementation of a CAZ C (without exemptions), and Technical Note 20: GM Specialist Goods Survey Results Summary<sup>1</sup>. Further notes were produced setting out the development of analytical tools for freight, with the latest published summary of that work provided in T4 Appendix A of the Modelling for Consultation<sup>2</sup>.
- 1.3 This evidence formed the basis of the development of the Option for Consultation. From March 2020, it became clear that the pandemic would affect the Greater Manchester Clean Air Plan (GM CAP); a programme of work was carried out in 2020/2021 to better understand the possible impacts of the Covid 19 pandemic on the GM CAP, published as the Impacts of Covid Report in June 2021<sup>3</sup>. This evidence, alongside feedback from the Consultation, was used to inform the revised GM CAP as approved by the ten GM local authorities in June/July 2021.
- 1.4 At that time, GM identified a number of possible risks to the GM CAP, which included concerns about the risk of vehicle price increases and the impact of any further lockdowns in the UK or countries in the supply chain.
- 1.5 This report draws a series of findings and conclusions to better understand the circumstances affecting HGV owners in Spring 2022 (based upon the previous' GM CAP implementation date) and the implications for the GM CAP and surrounding policy framework.
- 1.6 Since Spring 2022, there have been further dramatic changes to the economic context in the UK which are not explicitly addressed in this report but are set out in **Appendix E**. A range of factors associated with the impact from war in Ukraine, increased costs of energy and fuel, changes to Bank of England base rates and forecasts, global supply chain challenges, and the cost-of-living crisis have combined to create a context of increased financial hardship for businesses and families.

## Structure of Note

- 1.7 The remaining sections of the report are structured as follows:
  - **Section 2** provides a review of the in scope vehicles of the HGV sector in GM;
  - **Section 3** reviews the impacts of Covid-19 on the HGV sector, with a particular focus on the availability and indicative purchase prices of new and used HGVs. This chapter also considers the vulnerability impacts of Covid-19 on the sector; and

<sup>1</sup> All available at <https://cleanairgm.com/technical-documents/>

<sup>2</sup> [https://assets.ctfassets.net/tlpgbv1k6h2/3AKtd1g0fg5OwQFNzc5FIQ/2b42ae34e93d292a5ec2eb26f7f5e8fb/T4 - Appendix A Behavioural Response Cost Models and Demand Sifting Tool.pdf](https://assets.ctfassets.net/tlpgbv1k6h2/3AKtd1g0fg5OwQFNzc5FIQ/2b42ae34e93d292a5ec2eb26f7f5e8fb/T4_-_Appendix_A_Behavioural_Response_Cost_Models_and_Demand_Sifting_Tool.pdf)

<sup>3</sup> GM CAP- Impact of COVID Report. Available at: <https://cleanairgm.com/technical-documents/>

- **Section 4** provides a summary of the key findings, also presenting details of any risks or issues facing the sector in responding to GM CAP.

1.8 In addition, **Appendix A** provides a list of data used to inform the report and **Appendix B** reviews the recent changes in travel behaviour within GM through the pandemic up until January 2022.

## 2. Overview of the HGV sector in GM

### Overview of Vehicle Sector

- 2.1 In the UK, the term HGV is used for any lorry with a maximum gross weight of over 3.5 tonnes. Vehicles over 7.5 tonnes gross require a Heavy Goods Vehicle driver's license.
- 2.2 In 2020 GB registered HGVs carried over 1.27bn tonnes of goods and travelled 16.2bn vehicle kilometres.<sup>4</sup>
- 2.3 At the end of 2020 there were 485,900 HGVs operating in the UK, with 99.4% of those powered by diesel.<sup>5</sup> Vehicles have got larger and heavier, with the average Gross Vehicle Weight now 22.8 tonnes (up from 18.7 tonnes in 2000) and the percentage of vehicles over 41 tonnes (GVW) rising from 17.4% in 2010 to 24.2% in 2020.<sup>6</sup>
- 2.4 An Operator's Licence is required for businesses that use goods vehicles over 3,500kg. The number of goods vehicle operator licences currently issued in Great Britain declined to under 100,000 in 2009/10 falling further to 69,000 in 2019/20. During this period the average size of an operators' fleet increased from 3.8 vehicles to 5.2 vehicles per licence, meaning fewer individual licences covering more vehicles. This means fleets are getting larger, however the sector is still dominated by SMEs, including owner-drivers who drive and operate their own vehicle.<sup>7</sup>
- 2.5 In Greater Manchester it is estimated there are over 20,000 HGVs<sup>8</sup> registered in the area. Vehicles in the sector vary in size, from 7.5 tonne 4-wheeler box vehicles often deployed on shorter, local runs (such as deliveries to the end customer) to 44 tonne articulated vehicles often used for strategic 'trunking' movements (such as taking a container from a port in the South of England to a Distribution Centre in the Midlands or North of England).
- 2.6 The age profile of HGV fleets has not significantly varied since 2000, with between 25%-30% of the national HGV fleet newer than 3 years old.<sup>9</sup>
- 2.7 Vehicle lifespans vary; companies operating larger fleets, such as those in the food and retail sectors, typically replace vehicles more frequently and are therefore more

<sup>4</sup> Domestic Road Freight Statistics, United Kingdom 2020, Department for Transport

<sup>5</sup> Department for Transport Statistics, Table VEH0503 Licensed heavy goods vehicles at the end of the year by propulsion / fueltype, Great Britain from 1994; also United Kingdom from 2014

<sup>6</sup> Department for Transport Statistics, Table VEH0506 Licensed heavy goods vehicles at the end of the year by gross vehicle weight (tonnes), Great Britain from 1994; also United Kingdom from 2014

<sup>7</sup> Domestic Road Freight Statistics, United Kingdom 2020, Department for Transport

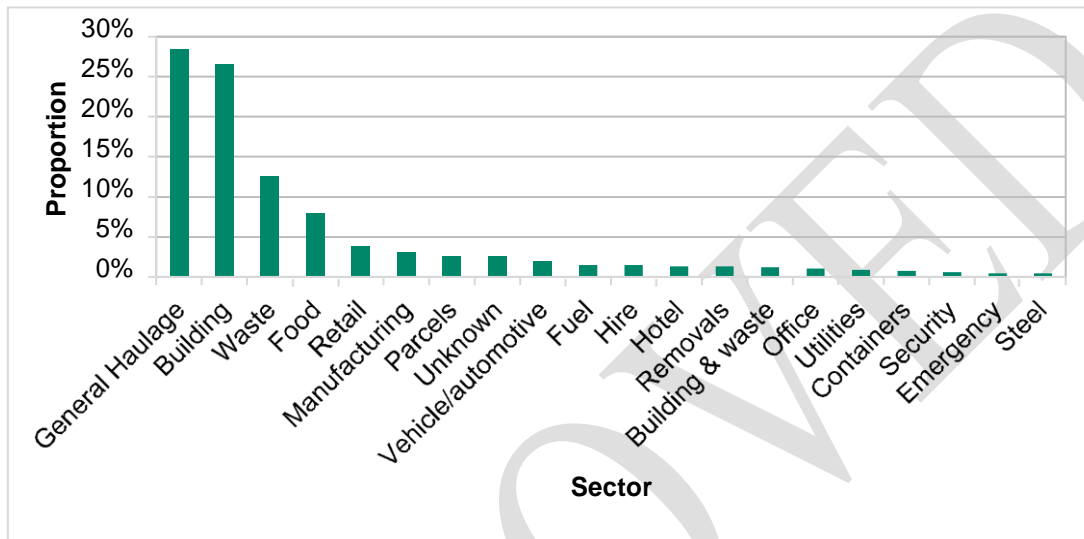
<sup>8</sup> Based on size of market served by HGV (population served). GM equates to 4.2% of UK population, allocation of circa 500,000 HGVs based in UK (Source: SMMT)

<sup>9</sup> Department for Transport Statistics, Table VEH0507 Licensed heavy goods vehicles at the end of the year by number of years since first registration, Great Britain from 1994; also United Kingdom from 2014

likely to have CAZ compliant vehicles at present, although some parts of those sectors have been badly affected by the pandemic in terms of extended periods of closure or constrained operations. Longer vehicle lifespans are associated with sectors such as waste and removals, the main factors are the margins on product being moved or the level of intensity that a vehicle is used.

- 2.8 The largest sector, General Haulage, makes up 29.1% of the GM market and includes over 2,000 vehicles affected by the GM CAP<sup>10</sup>. (See **Figure 2-1**).

**Figure 2-1 HGV Traffic Volumes in Greater Manchester, Feb '20**

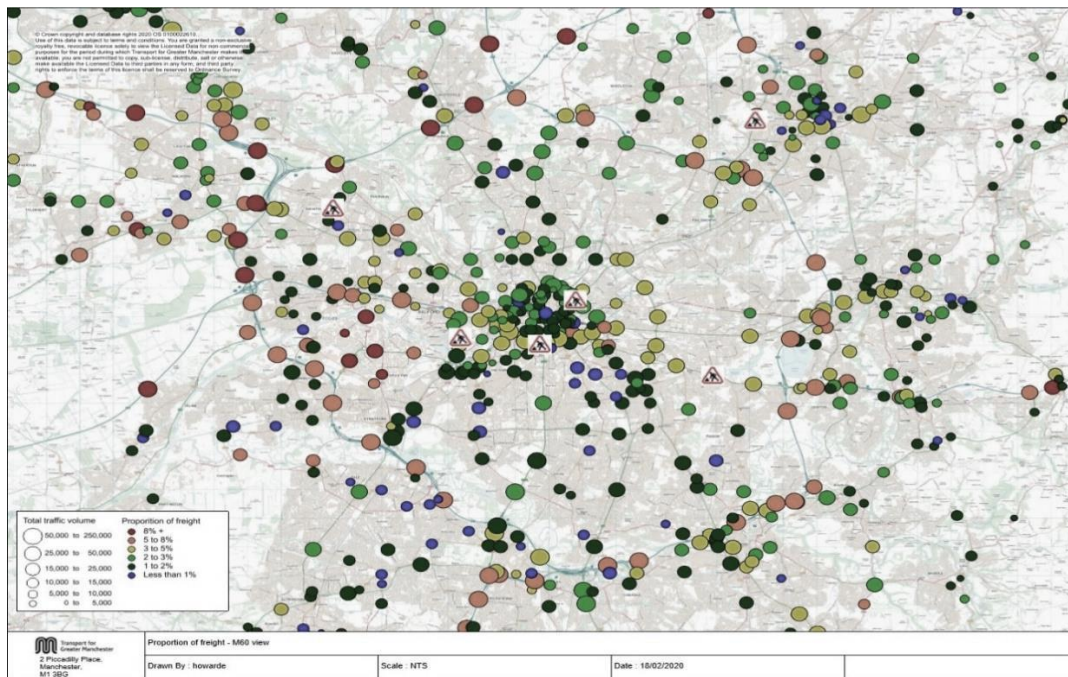


Source: AECOM Specialised Goods Vehicle Surveys, UK

- 2.9 **Figure 2-2** demonstrates the HGV pre-pandemic traffic proportions in Greater Manchester. The data used to populate the map was taken from traffic count information collected in mid-February 2020. This date was chosen as it would represent a typical “working” weekday in the first quarter of a year. The Strategic Road Network (SRN) generally has higher volumes of traffic overall and higher proportions of freight-related traffic. Key radial routes into the city often have relatively high volumes of freight vehicles, however form a lower proportion of overall traffic volumes, due in part to high volumes of commuter traffic.

<sup>10</sup> Source: AECOM Specialised Goods Vehicle Surveys, UK

Figure 2-2 HGV Traffic Volumes in Greater Manchester, Feb '20



Source: Draft TfGM Freight Strategy

## Review of in scope Vehicles

2.10 For context, the proportion of vehicle types in GM, relative to the regional and national averages, are provided in **Table 2-1** based on the latest available registration statistics from the DfT. There will be instances, particularly for commercial usage, where vehicles are licensed in one location but used in another, but this table provides an overview of the relative size of each fleet.

Table 2-1 Proportion of Vehicle Types Registered by Area, 2022

	Cars	Van	HGV	Bus & Coach	Other
GB	85.0%	11.3%	1.3%	0.4%	2.1%
England	85.1%	11.3%	1.3%	0.4%	1.9%
NW	85.7%	10.9%	1.5%	0.3%	1.6%
GM	85.6%	11.8%	1.6%	0.4%	0.7%

Source: Department for Transport, Statistical data set, All vehicles (VEH01), Last updated 13 January 2022

2.11 **Table 2-2** presents the number of HGVs serving Greater Manchester in 2019, split by compliant and non-compliant vehicles.



**Table 2-2 2019 HGV Volumes, 2019**

Modelled Response	GM Based	Non-GM Based	Total
Compliant	12,212	29,852	<b>42,064</b>
Non-Compliant	13,525	15,203	<b>28,728</b>
<b>Total</b>	<b>25,737</b>	<b>45,055</b>	<b>70,792</b>

Source: Air Quality Modelling Report: with impacts of Covid-19 and Post Consultation Package Measures

### Changes to HGVs Over Time

- 2.12 Projection of the 2019 HGV totals, as set out in **Table 2-2**, was undertaken to forecast the natural change in compliant vehicles into the future, without any interventions applied (Do Minimum – No GM CAP). This was undertaken to understand the market's proportion of natural upgrades. Natural upgrades, without the impact of the pandemic, have been incorporated into the key forecast years (2022, 2023 and 2025) through retention of a constant age profile with the number of non-compliant vehicles reducing over time, summarised in **Table 2-3**.
- 2.13 This shows that natural vehicle upgrades grow the proportion of compliant vehicles serving GM from 42,064 (59%) in 2019 to 54,213 (77%) by 2022. This results in an 8.5% annual change in the split between compliant and non-compliant HGVs serving the GM market.

**Table 2-3 Forecast Do Minimum (without CAP) Compliant HGVs**

Year	Modelled Response	GM Based	Non-GM Based	Total
2022	Compliant	18,410	35,803	54,213
	Non-Compliant	7,327	9,252	16,579
	<b>Total</b>	<b>25,737</b>	<b>45,055</b>	<b>70,792</b>
2023	Compliant	19,749	37,523	57,272
	Non-Compliant	5,988	7,532	13,520
	<b>Total</b>	<b>25,737</b>	<b>45,055</b>	<b>70,792</b>
2025	Compliant	22,002	40,785	62,787
	Non-Compliant	3,735	4,270	8,005
	<b>Total</b>	<b>25,737</b>	<b>45,055</b>	<b>70,792</b>

Source: Air Quality Modelling Report: with impacts of Covid-19 and Post Consultation Package Measures

Note: All years indicate the beginning of the year

## Review of Fleet Profile

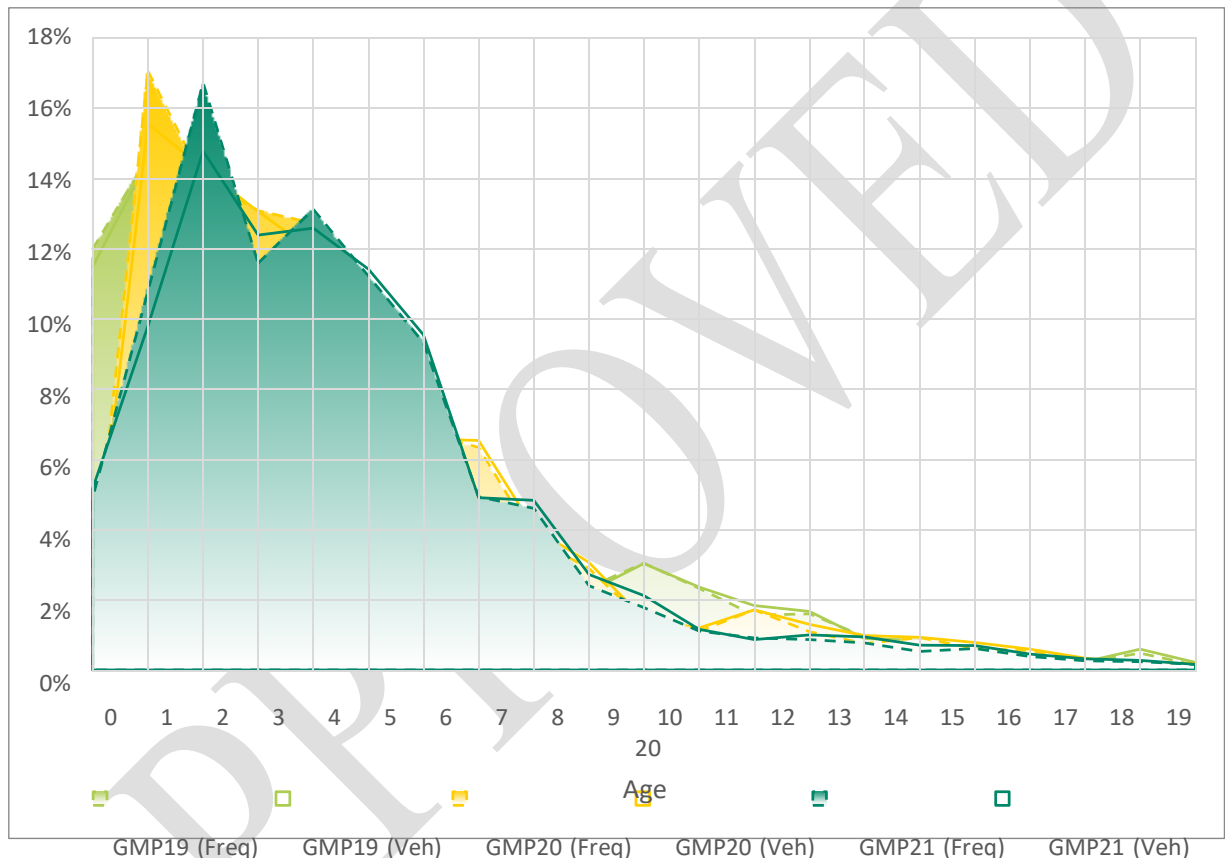
### ANPR

- 2.14 Three sets of ANPR data were used, based on available data, these comprise the following time periods:
- GMP19 - January 2019 (pre Covid-19 pandemic);
  - GMP20 - September 2020; and
  - GMP21 - November 2021.

2.15 **Figure 2-3** presents the vehicle age profile of HGV in each survey. The proportion of newly purchased HGVs (i.e. less than 1 year-old) captured by ANPR cameras decreased from near 12% to 2% from 2019 to 2020<sup>11</sup> and recovered to close to 6% by the end of the 2021. These figures are likely to be slightly overestimated due to differences in the sample size (10 months' worth of 'new vehicles' captured in the January 2019 survey compared to 6 and 8 months captured in the September 2020 and November 2021 surveys).

2.16 The analysis, as shown in **Figure 2-3** suggests that the average age of HGVs increased by 0.5 years from the beginning of 2019 to the end of 2021.

**Figure 2-3 HGV fleet age distribution**



Source: GMP ANPR Data analysis

**Table 2-4 Average HGV Age**

Data set	GMP19	GMP20	GMP21
<b>Frequency</b>			
Average Age	4.6	5.0	5.0
Most common age group	2	1	2
<b>Unique Vehicles</b>			
Average Age	4.8	5.2	5.3
Most common age group	1	1	2

Source: GMP ANPR Data analysis

<sup>11</sup> Acknowledging that 2020 is missing at least 3 months of data since the survey was taken in September.

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**SMMT**

- 2.17 The latest figures from SMMT as this document was reviewed shows that HGV registrations are on the rise, but still not at the same levels from the years prior to the pandemic. Sales of new HGVs had been brought forward into 2019 by many hauliers. Given the relatively low divergence of HGV registrations over the 2019-2021 period, it is not possible to distinguish how Covid-19 has impacted on the longer-term pattern of HGV investment cycles.
- 2.18 In July 2019, Specialised Goods Vehicle Counts (SGVC) were undertaken across 3 sites in Salford and Manchester on key approaches to the city centre. This exercise was repeated in October 2020, which demonstrated that compliance rates had improved. This may be due to a general natural trend in improvements to the fleet over time. Although it may also reflect changing travel behaviour due to the restrictions in place at the time, which could have impacted on the types of HGVs accessing these parts of the Regional Centre at this time.
- 2.19 **Table 2-5** shows the results of these surveys, which shows that a significant proportion of non-compliant vehicles are from the building/construction sector.

**Table 2-5 Specialised Goods Vehicle Count Results (2019 & 2020)**

Location	No of HGVS observed (2019)	Compliance (2019)	Compliance (2020)	Non-Compliance by sector (2019)
Bridge Street, Manchester	271	58%	75%	22% Building 22% Waste 17% Food
Regent Road, Salford	1,071	66%	71%	29% Building 20% General Haulage
A6 (immediately South of Mancunian Way)	612	60%	n/a	27% Building 13% General Haulage

Source: AECOM SGVC Survey, note the A6 site was not resurveyed in 2020

### 3. Review of Covid-19 impacts on the HGV vehicle sector

#### Overview

- 3.1 The HGV sector has been reviewed to consider pre-pandemic background characteristics, Covid-19 related impacts on the industries affected by the sector, and review of the expected vulnerabilities when responding to GM CAP.

#### Pre-Pandemic – Sector related trends

- 3.2 Unlike the van sector, which has seen significant growth in the number of vehicles in recent years, the HGV market pre-pandemic has remained largely constant over the last 20 years, with a 2% reduction in vehicle numbers overall since 2000.<sup>12</sup>
- 3.3 However, HGV registrations do fluctuate as shown in **Figure 3-1** and **Since 2000**, although total HGV numbers have been relatively stable there is some evidence of downsizing from HGVs to LCVs to accommodate more agile supply chains.
- 3.4 Figure 3-2 showing the impact that the financial downturn experienced in 2009 had on the number of HGVs being registered and subsequent 'bounce-back' as the economy recovered.

**Figure 3-1 Number of HGV Registered Per Year in the UK**

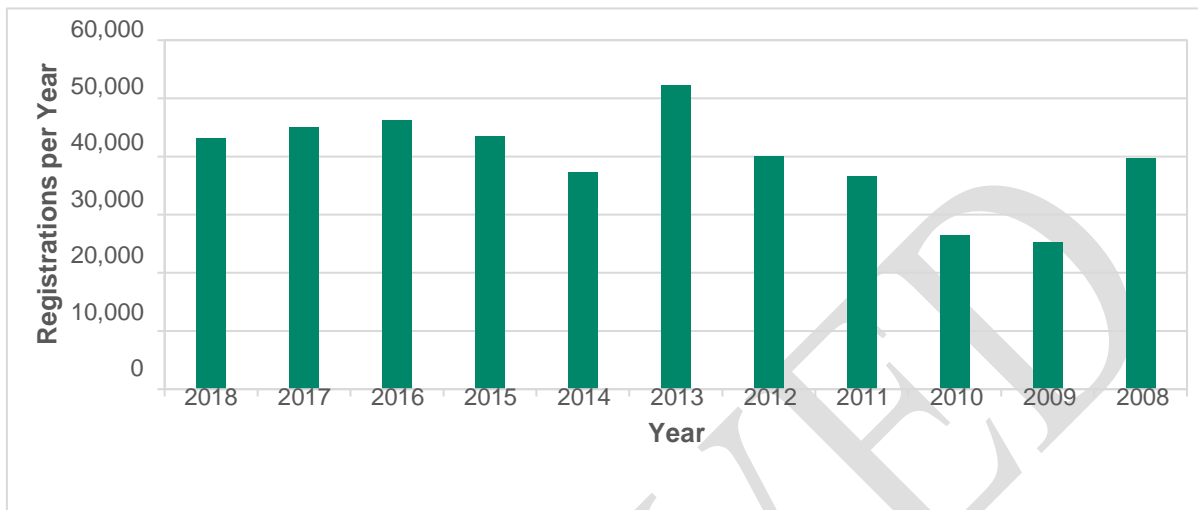
Year	No. of HGVs (000's)	% of HGVs	Euro Standard
2018	43.1	8.2%	Euro 6
2017	45	8.5%	
2016	46.2	8.8%	
2015	43.5	8.2%	
2014	37.3	7.1%	
2013	52.2	9.9%	Euro 5
2012	40.1	7.6%	
2011	36.6	6.9%	
2010	26.5	5.0%	
2009	25.3	4.8%	
2008	39.7	7.5%	Euro 4
2007	32.8	6.2%	
2006	31.5	6.0%	
2005	27.8	5.3%	

Source: <https://www.smmmt.co.uk/vehicle-data/heavy-goods-vehicle-registrations/>

<sup>12</sup> Source: SMMT

- 3.5 Since 2000, although total HGV numbers have been relatively stable there is some evidence of downsizing from HGVs to LCVs to accommodate more agile supply chains.<sup>13</sup>

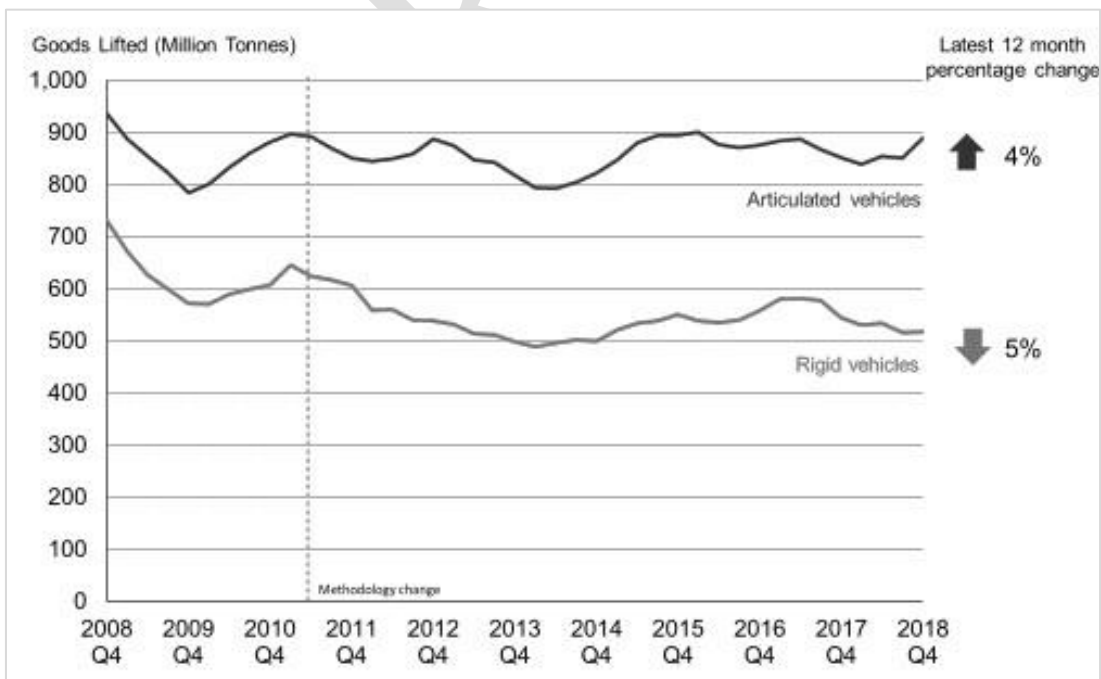
**Figure 3-2 HGV Registrations over 10 years**



Source: <https://www.smmmt.co.uk/vehicle-data/heavy-goods-vehicle-registrations/>

- 3.6 There has been a move towards greater uptake of larger HGVs able to transport heavier consignments. HGVs deployed in the UK range from a gross vehicle weight of 3.5 tonnes to 44 tonnes, with articulated vehicles - which tend to be longer, larger, heavier vehicles - carrying more freight (see **Figure 3-3**). In 2018, articulated vehicles carried 889 million tonnes (63%) of freight, whereas rigid vehicles only carried 517 million tonnes (37%) of freight.<sup>14</sup>

**Figure 3-3 Goods lifted by GB-registered HGVs, by type of vehicle**



Source: Domestic Road Freight Statistics, United Kingdom: 2018, Department of Transport

- 3.7 In 2018 the 5 most common commodity divisions (representing 64% of all goods) lifted by GB-registered HGVs in the UK were food products (20%), Metal ore and

<sup>13</sup> Source: SMMT

<sup>14</sup> Domestic Road Freight Statistics, United Kingdom: 2018, Department of Transport

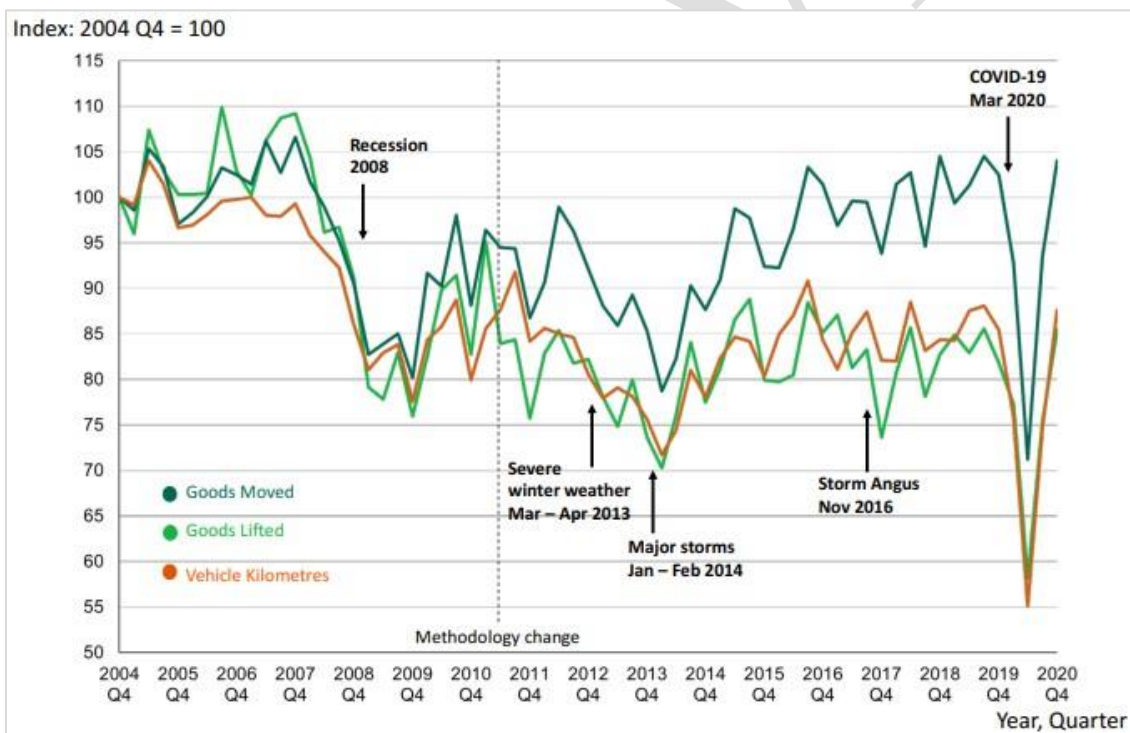
other mining and quarrying (13%), Waste related products (11%), Groupage (10%) and Glass, cement and other non-metallic mineral products (10%).<sup>15</sup>

## Covid-19 Effects on the HGV sector

### Overview

- 3.8 The pandemic caused disruption at all levels of the vehicle sales market, particularly in 2020, where production lines were halted and lockdown rules affected the global supply chain. Skills shortages have been noticed in almost every field, but have been particularly noticeable amongst HGV drivers, leading to government initiatives to bring more people into the field. This driver shortage has had an impact on the demand of HGV vehicles.<sup>16</sup>
- 3.9 As with all other modes of transport, the HGV sector was significantly impacted in the aftermath of the March 2020 Covid-19 restrictions as large sections of the economy were shut down. However, by 2020 Q4 domestic road freight had returned to pre-pandemic levels (see **Figure 3-4**).

**Figure 3-4 Impact of coronavirus (Covid-19) on quarterly data trends**



Source: Domestic Road Freight Statistics, United Kingdom: 2020, Department of Transport

- 3.10 According to the Transport Exchange Group,<sup>17</sup> the cost of road haulage in January 2022 was up by 15% compared to January 2021 as a result of issues in the wider economy amid recent inflation.

<sup>15</sup> Domestic Road Freight Statistics, United Kingdom: 2018, Department of Transport

<sup>16</sup> Business Live <https://www.business-live.co.uk/ports-logistics/hgv-crisis-set-worsen-amid-22146925>

<sup>17</sup> Transport Exchange Group, February 2022 <https://transportexchange.co.uk/road-transport-price-index/january-22/>

## Review of Covid-19 impacts on vehicle sales market

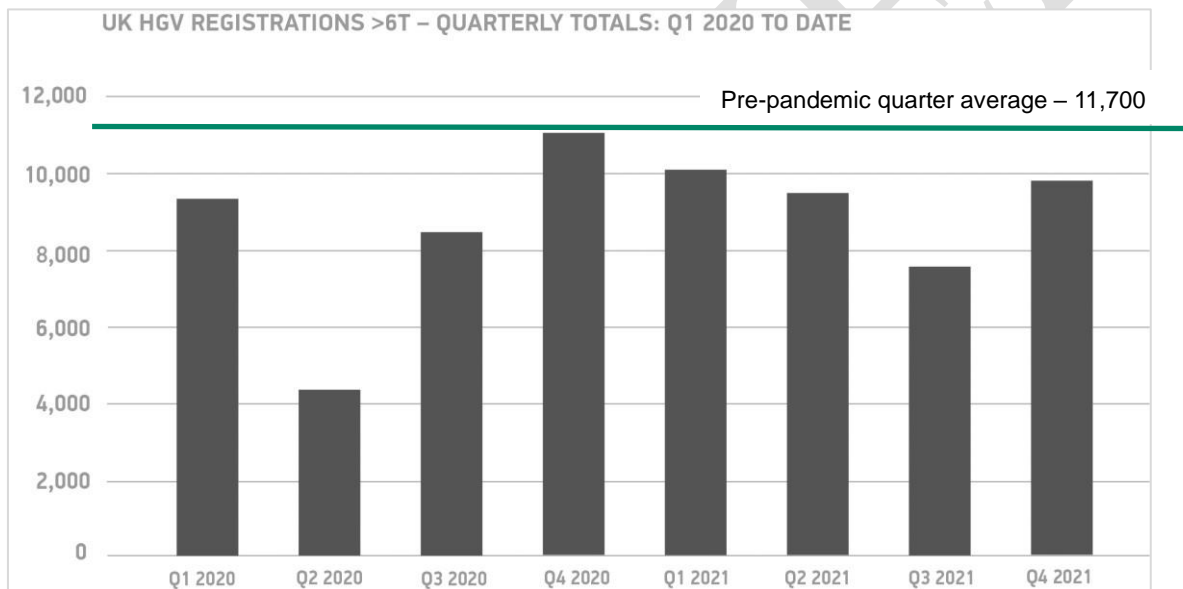
### Overview

3.11 The key changes in the HGV sales market during the pandemic are discussed below.

### Vehicle Registrations

3.12 Data produced by SMMT shows that despite an initial decrease in HGV registrations, particularly noticeable in quarter two of 2020, HGV registrations are on the rise, but still not at the same levels from the years prior to the pandemic. For example, in the year and a half prior to the pandemic (Q4 2018 – Q1 2020), average registrations per month were around 11,700 per quarter, compared to an average of around 8,500 per quarter since pandemic (Q2 2020 – Q3 2021). In this time, no quarter has reached the same levels as the pre-pandemic quarter average. **Figure 3-5** shows the UK HGV registrations by quarter since Q4 2017.

**Figure 3-5 UK HGV Registrations Q1 2020 – Q4 2021**

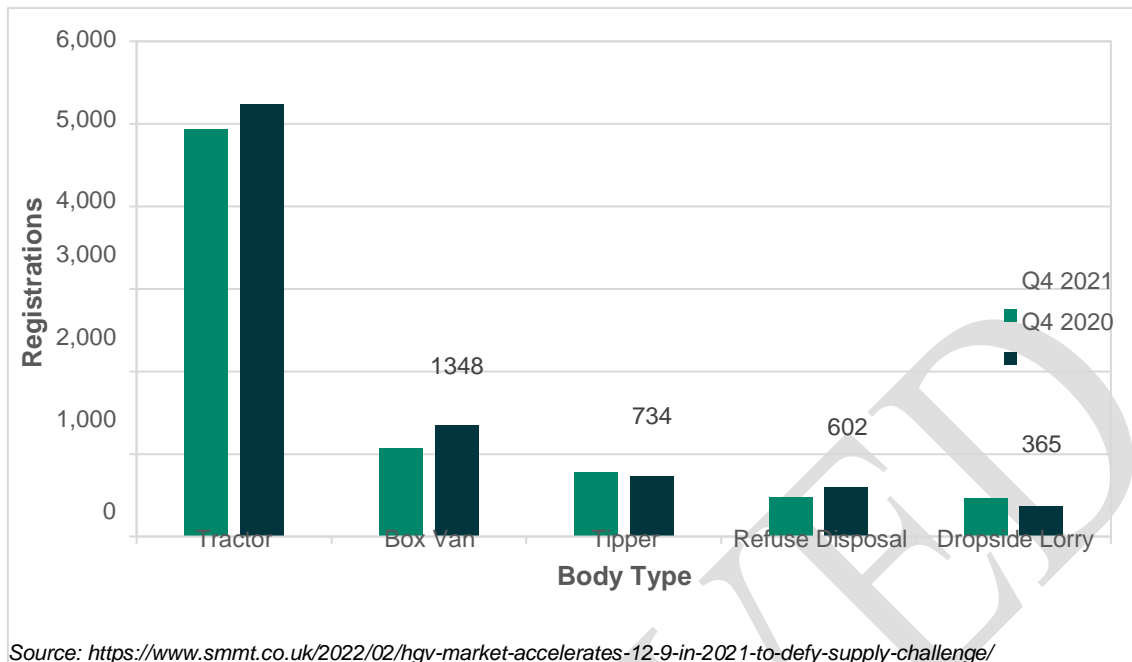


Source: SMMT

- 3.13 Some 37,163 units were registered last year, 57.1% of which were rigids, while 42.9% were articulated trucks, in line with market splits seen in previous years, though both segments grew with 2,239 more rigids (+11.8%) and 2,006 more artic's (+14.4%) registered than 2020.<sup>18</sup>
- 3.14 As construction began to recover during the year, tipper demand rose by 32.5% to 3,808 units. Tractor units were the most popular type of HGV, with 15,679 units (+16.0%) representing a market share of 42.1%, while refuse trucks increased by 2.0% to 2,067 units between 2020 and 2021, despite a drop in Q4 2021 on the previous years.<sup>19</sup>

<sup>18</sup> <https://www.smmt.co.uk/2022/02/hgv-market-accelerates-12-9-in-2021-to-defy-supply-challenge/>

<sup>19</sup> <https://www.smmt.co.uk/2022/02/hgv-market-accelerates-12-9-in-2021-to-defy-supply-challenge/>

**Figure 3-6 Top 5 Body Types****Vehicle Availability**

- 3.15 To enhance understanding of HGV availability in the current market, three major vehicle manufacturers and dealerships were consulted. The three companies chosen represent around 60% of the new truck market in 2021. Their responses provide an insight into the availability of new and used HGVs.

**Commercial Dealership (1) Manchester – 11<sup>th</sup> February 2022**

*Consultation with a dealership in Greater Manchester outlined the significant issues of vehicle supply and availability of new HGVs. Lead times for certain models were approximately 8 months, 10 months, and 11 months respectively, timescales which do not include postproduction fit outs. The branch broke its sales record in 2021, however were required to close to new orders in December 2021 due to supply issues. Vehicles have been held back due in part to the semiconductor shortage, with key components such as window modulators missing. The manufacturer has also increased prices over the last year.*

*The used HGV sector is experiencing similar issues with availability, with all HGV types scarce, but curtainsider rigids and tractor units were identified as being particularly difficult to source. Prices were also reported to be high, with the same vehicles fetching the same price second-hand two years on from the initial sale.*

*Feedback suggests that the company do not expect the situation to be resolved in 2022 at the earliest.*



**Commercial Dealership (2), Manchester – 17<sup>th</sup> February 2022**

*. Lead times for new HGVs were reported to be significant, with an approximate 12 month wait for a new diesel vehicle once ordered. Certain electric models were said to be available in around 14 weeks for the chassis. But there is industry reticence to invest in HGV EVs at the moment.*

*Trucks were reported to be semi-built, waiting for components (primarily semiconductors). The lack of semiconductors was described as still an issue to all Auto OEMs. The wait for tractor units was longer than rigid HGVs, due to their relative lack of complexity (rigid wait times being 6-9 months). Prices of new vehicles have risen gradually across the year mainly due to increases in the cost of energy, rubber and steel. 85% of the unladen weight of a typical truck weighing 8500kg is metal and producing steel is very energy intensive.*

*The availability of used HGVs is also limited, with dealers extending leases whilst new vehicles are being manufactured. This is creating a shortfall in the market and it was reported that vehicles up to 4 years old are fetching higher prices at auction than their original brand new price. The GM CAP is already playing a role in shifting demand, with Euro V vehicles often being sold abroad.*

*The respondent felt that the market was 2 years away from returning to 'normal' levels and as manufacturers are unable to construct vehicles at the high level that they are being ordered, the waiting list is currently growing.*

**Commercial Dealership (3) – 14<sup>th</sup> February 2022**

*Consultation with the dealership suggested that the future supply of new HGVs was uncertain and whilst there were a small number of vehicles available to sell, the delivery of further trucks from the manufacturer was uncertain.*

*It was stated as 'likely' that any orders placed now could not be fulfilled until 2023 and that the issues of new vehicle availability was having an impact on the used HGV sector, with owners holding on to their vehicles for longer and dealerships were unable to fulfil large fleet renewal orders.*

### New Vehicle Prices

- 3.16 Prices of new HGVs did not significantly change in years immediately before the pandemic. In 2018, the cost of an 18-tonne rigid vehicle was £66.7k, in 2019 and 2020 the price was £67.9k, showing only a 1.8% price increase over 2 years. A similar increase of 1.7% can be seen in 44-tonne artic vehicles (£83.2k rising to £84.6k).<sup>20</sup>
- 3.17 However, consultation with manufacturers and dealers, shown in the boxes above, has demonstrated that the prices of new vehicles has increased in 2021 and 2022 as scarcity and cost of parts and materials has risen.<sup>21</sup>

### Second-hand Vehicle Prices

- 3.18 In contrast, the second-hand market has seen price increases much larger than that of new vehicles. In the article *Continuing strong demand predicted to lead to a record year for used HGV prices*<sup>22</sup>, Commercial Fleet notes positive feedback from dealers, suggesting strong retail appetite and conditions and notes that the 58% increase in average selling price of all heavy goods vehicles is record breaking. The article notes that Cox Automotive states that a significant contributing factor to this is the high demand for Euro 6 HGVs, with a 42% year on year increase in price on these vehicles from 2020 to 2021. Manheim expect the price difference between Euro 5 and Euro 6 to continue to grow from the current value of £9,000.
- 3.19 Second-hand dealers are reflecting the demand for vehicles to be Clean Air Zone (based on national criteria as applied in local zones across the country) and Ultra Low Emission Zone compliant as a selling point by advertising this on their websites.

## Review of Vulnerability in responding to GM CAP

- 3.20 Covid-19 has had an impact on the HGV sector. The national lockdowns and Covid-19 restrictions have resulted in a reduced availability of new HGVs to the markets. This has increased the market purchase price of new vehicles and at the same time reduced the availability of newer second-hand vehicles to the market. This has in turn pushed the price of available second-hand HGVs to a level close to that of new vehicles. Most second-hand vehicles coming to the market already have buyers lined up.
- 3.21 There has been a drop in demand for Euro V vehicles, probably due to the GM CAP, with high proportions of Euro V HGVs coming to the markets being sold abroad.
- 3.22 This section reviews the original vulnerability assessment of the HGV sector undertaken in 2019 and assesses how the Covid-19 pandemic has impacted vulnerability to the GM CAP.

<sup>20</sup> Motor Transport, MTR\_141220\_028-030.indd (motortransport.co.uk)

<sup>21</sup> <https://www.commercialfleet.org/fleet-management/best-practices/used-values-soar-as-van-and-truck-shortages-continue>

<sup>22</sup> <https://www.coxautoinc.eu/content-hub/fuel/continuing-strong-demand-predicted-to-lead-to-a-record-year-for-used-hgv-prices/>  
Continuing strong demand predicted to lead to a record year for used HGV prices (September 2021)

Market Segment	Pre Covid-19 – Responding to GM CAP	Covid-19 Impact	Impact on Responding to GM CAP (Post Covid-19)
HGV	<p><b>Medium impact</b></p> <p>Significant cost to upgrade if existing vehicles are non-compliant.</p> <p>Period for leased vehicles average 4 years, high proportion of these would already be compliant.</p> <p>Likely less impact to larger haulage companies and higher impact on smaller companies as fleet more likely second-hand or not be renewed as quickly.</p> <p>GM CAP having an influence on the second-hand sales market with high proportion of Euro V class HGVs being sold abroad.</p>	<p><b>High impact</b> likely.</p> <p>A reduction in HGV movements initially during the first national lockdown had recovered to pre-pandemic levels by Q4 2020.</p> <p>Cost of road haulage has increased 15% from Jan 2021 to Jan 2022, due to current economic climate, partially due to Covid-19 pandemic.</p> <p>Driver shortages sector wide.</p> <p>HGV demand for new vehicles exceeds supply resulting in up to 12 months lead times. Caused by supply chain issues and part shortages.</p> <p>Lack of new vehicle supply has resulted in second-hand HGV prices significantly increasing, as there is reduced vehicle rotation.</p>	<p><b>Medium impact</b></p> <p>New HGVs experiencing increased lead times, resulting in second-hand vehicle being used for increased length of time.</p> <p>Lack of second-hand vehicles is resulting in prices of second-hand HGVs exceeding cost of new HGVs in some cases.</p>

## 4. Conclusion

### Summary

4.1 This note has sought to address the following key considerations:

- A review of the current position of the HGV fleet;
- Report on the impact of Covid-19 in terms of changes to travel behaviour within GM, including changing transport trends and economic trends as a result of the Covid-19 pandemic;
- Specific Covid-19 pandemic impacts on this vehicle type (HGVs); and
- Comment on the extent to which those changes may be considered material to the success of the GM CAP given the vulnerability of the vehicle type (HGVs) to meet GM CAP compliance.

4.2 HGVs account for around 1.5% of the total vehicle fleet in GM.

4.3 Based on 2019 data, it is estimated there were approximately 71,000 HGVs serving GM, with 60% of those being compliant.

4.4 Vehicle fleets are tending to get larger, however the sector is still dominated by SMEs, including owner-drivers who drive and operate their own vehicle.

4.5 The age profile of HGV fleets has not significantly varied since 2000, with between 25%-30% of the national HGV fleet newer than 3 years old.

4.6 Vehicle lifespans vary; companies operating larger fleets, such as those in the food and retail sectors, typically replacing vehicles more frequently whilst longer vehicle lifespans are associated with sectors such as waste and removals, the main factors are the margins on product being moved or the level of intensity that a vehicle is used. The largest sector, General Haulage, makes up 29.1% of the GM market and includes over 2,000 vehicles affected by the GM CAP.

4.7 Whilst there was a significant impact in 2020, the overall volume and usage of HGVs has generally returned to pre-pandemic levels.

4.8 The HGV sector is experiencing significant issues in relation to demand and supply of new vehicles. HGV production has been hampered by the shortages in components, particularly semiconductors. This shortage has impacted on the ability of manufacturers to meet the increased demand as the economy grows and the requirement to 'catchup' with lower production in Q2 2020. The issue is so significant that some major manufacturers are not taking new orders for this year.

4.9 Significant price increases have been observed, particularly in the second-hand compliant market. For new vehicles, the more significant issue is availability and lead times as noted above.

4.10 Whilst the situation is fluid, responses from vehicle manufacturers and dealerships suggest that the issue will not be resolved until 2023. This means that higher prices for new and used vehicles and a lack of availability of HGVs are likely to continue throughout 2022.

# Appendix A – List of Documents

This Appendix provides a list of documents and data sources used to inform this report.

Document Title	Date	Description	Relevance to GM CAP
<b>Chapter 1</b>			
Mayor of Greater Manchester writes to Government reiterating call for non-charging Clean Air Zone	May 2022	Announcement, provide background on current status of GM CAP <a href="https://www.greatermanchester-ca.gov.uk/news/mayor-of-greater-manchester-writes-to-government-reiterating-call-for-non-charging-clean-air-zone">https://www.greatermanchester-ca.gov.uk/news/mayor-of-greater-manchester-writes-to-government-reiterating-call-for-non-charging-clean-air-zone</a>	Current Status of GM CAP
GM CAP Technical Documents (various)	Various	All available at Technical Documents Clean Air Greater Manchester (cleanairgm.com) <a href="https://cleanairgm.com/technical-documents/">https://cleanairgm.com/technical-documents/</a>	Published Technical Reports for GM CAP
<b>Chapter 2</b>			
Domestic Road Freight Statistics	2020	HGV industry statistics - Department for Transport	Understand UK HGVs industry statistics
Table VEH0503 Licensed heavy goods vehicles at the end of the year by propulsion	May 2021	Department for Transport Statistics - Licensed heavy goods vehicles at the end of the year by propulsion	Understand UK HGVs Statistics
Table VEH0506 Licensed heavy goods vehicles at the end of the year by gross vehicle weight (tonnes)	May 2021	Department for Transport Statistics - Licensed heavy goods vehicles at the end of the year by gross vehicle weight (tonnes)	Understand UK HGVs Statistics
HGV data (SMMT)	various	Based on size of market served by HGV (population served). GM equates to 4.2% of UK population, allocation of circa 500,000 HGVs based in UK	To understand the HGV market in the GM
Table VEH0507 Licensed heavy goods vehicles at the end of the year by number of years since first registration,	May 2021	The age profile of HGV fleets has not significantly varied since 2000, with between 25%-30% of the national HGV fleet newer than 3 years old	Understand UK HGVs Statistics
AECOM Specialised Goods Vehicle Surveys	Various	Specialised Goods Vehicle Count Results	Provides background details of the HGV sector 2019 & 2020
All vehicles (VEH01)	Jan 2022	Data on all licensed and registered vehicles, produced by Department for Transport.	Provided the proportion of Vehicle Types Registered by Area, 2022

Air Quality Modelling Report: with impacts of Covid-19 and Post Consultation Package Measures	2021	<a href="https://cleanairgm.com/technical-documents/">https://cleanairgm.com/technical-documents/</a>	GM CAP Technical Report
GMP ANPR Data analysis	Various	Data on average HGV age	Understand GM HGVs average age
<b>Chapter 3</b>			
HGV SMMT report	2019	HGV market pre-pandemic has remained largely constant over the last 20 years, with a 2% reduction in vehicle numbers overall since 2000	Understand pre-pandemic HGV market
HGV Registrations - SMMT	2019	HGV Registrations over 10 years <a href="https://www.smmt.co.uk/vehicle-data/average-vehicle-registrations/">https://www.smmt.co.uk/vehicle-data/average-vehicle-registrations/</a>	To understand the UK HGV registration trend
Domestic Road Freight Statistics - DfT	2018	Goods lifted by GB-registered HGVs.	To understand the UK HGV types and commodity divisions
HGV crisis set to worsen amid mass exodus of drivers over conditions	Nov 2021	This driver shortage has had an impact on the demand of HGV vehicles <a href="https://www.business-live.co.uk/ports-logistics/hgv-crisis-set-worsen-amid-22146995">https://www.business-live.co.uk/ports-logistics/hgv-crisis-set-worsen-amid-22146995</a>	Impact of driver shortage on the demand of HGV market
January '22 Highest ever price-per-mile for January: TEG Road Transport Price Index up 15% on last January	Jan 2022	the cost of road haulage in January 2022 was up by 15% compared to January 2021 as a result of issues in the wider economy amid recent inflation. <a href="https://transportexchange.co.uk/road-transport-price-index-january-22/">https://transportexchange.co.uk/road-transport-price-index-january-22/</a>	Cost of road haulage as a result of inflation
HGV market accelerates 12.9% in 2021 to defy supply challenge - SMMT	Feb 2022	Provide recent HGV registrations post-covid. <a href="https://www.smmt.co.uk/2022/02/hgv-market-accelerates-12-9-in-2021-to-defy-supply-challenge/">https://www.smmt.co.uk/2022/02/hgv-market-accelerates-12-9-in-2021-to-defy-supply-challenge/</a>	Information on post-covid HGV market
Annual cost tables history - MotorTransport	Dec 2020	Prices of new HGVs did not significantly change in years immediately before the pandemic. In 2018, the cost of an 18-tonne rigid vehicle was £66.7k, in 2019 and 2020 the price was £67.9k, showing only a 1.8% price increase over 2 years. <a href="https://motortransport.co.uk/annual-cost-tables-history/">https://motortransport.co.uk/annual-cost-tables-history/</a>	Information about prices of new HGVs
Used values soar as van and truck shortages continue	July 2021	The prices of new vehicles has increased in 2021 and 2022 as scarcity and cost of parts and materials has risen <a href="https://www.commercialeet.org/management/best-practices/used-values-soar-as-van-and-truck-shortages-continue">https://www.commercialeet.org/management/best-practices/used-values-soar-as-van-and-truck-shortages-continue</a>	Information on increased price of vehicles
Continuing strong demand predicted to lead to a record year for used HGV prices	Sept 2021	The second-hand HGV market has seen price increases much larger than that of new vehicles. <a href="https://www.coxautoinc.eu/content-hub/fue/continuing-strong-demand-predicted-to-lead-to-a-record-year-for-used-hgv-prices">https://www.coxautoinc.eu/content-hub/fue/continuing-strong-demand-predicted-to-lead-to-a-record-year-for-used-hgv-prices</a>	Provide information on second-hand HGV market
<b>Chapter 4</b>			
		(No new Sources in Chapter 4)	



<b>Appendix A</b>			
		(No new Sources in Appendix A)	
<b>Appendix B</b>			
Coronavirus (Covid-19) UK Government Dashboard	Oct 2020	<a href="https://coronavirus.data.gov.uk/">https://coronavirus.data.gov.uk/</a>	Background of Covid Timeline
"Greater Manchester's Covid-19 Management Plan: how we control outbreaks"	2022	<a href="https://greatermanchester.co.uk/coronavirus/Covid-19-management">https://greatermanchester.co.uk/coronavirus/Covid-19-management</a>	Background of Covid Timeline
"Prime Minister announces new local COVID Alert Levels"	Oct 2020	<a href="https://www.gov.uk/government/news/prime-announces-new-local-covid-alert-levels">https://www.gov.uk/government/news/prime-announces-new-local-covid-alert-levels</a>	Background of Covid Timeline
TfGM's C2 Database	various	Traffic flow data was extracted and analysed from TfGM's C2 Database <a href="https://tfgm2.drakewell.co.uk/multidemo.asp">https://tfgm2.drakewell.co.uk/multidemo.asp</a>	Information on local traffic impacts
"Budget 2021: Fuel duty rise axed as petrol prices hit record highs"	Oct 2021	Fuel Prices Increase: <a href="https://www.standard.co.uk/news/politics/budget-2021-fuel-duty-rise-axed-petrol-prices-record-highs">https://www.standard.co.uk/news/politics/budget-2021-fuel-duty-rise-axed-petrol-prices-record-highs</a>	Information on Economic Related Impacts
"GDP monthly estimate, UK: December 2021"	Dec 2021	GDP information <a href="https://www.ons.gov.uk/economy/grossdomesticproduct/gdp/bulletins/gdpmonthlyestimates/december2021">https://www.ons.gov.uk/economy/grossdomesticproduct/gdp/bulletins/gdpmonthlyestimates/december2021</a>	Information on Economic Related Impacts
"Average weekly earnings in Great Britain: February 2022"	Dec 2021	Growth in average total pay (including bonuses) of 4.3% and growth in regular pay (excluding bonuses) of 3.7% among employees was seen in October to December 2021 <a href="https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandunemployment/series/b">https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandunemployment/series/b</a>	Information on Economic Related Impacts
"UK economy latest"	Dec 2022	Information on Goods import and exports <a href="https://www.ons.gov.uk/economy/economicoutputandproductivity/output/articles/uk-economy-latest/2022-12-01">https://www.ons.gov.uk/economy/economicoutputandproductivity/output/articles/uk-economy-latest/2022-12-01</a>	Information on Economic Related Impacts
"Cities Outlook 2022"	Jan 2022	Change in pub and restaurant sales in City Centres and Suburbs. Weekday footfall in Birmingham, Manchester and London <a href="https://www.centreforcities.org/wp-content/uploads/2022/01/Cities-Outlook-2022">https://www.centreforcities.org/wp-content/uploads/2022/01/Cities-Outlook-2022</a>	Information on Economic Related Impacts

# Appendix B – Review of COVID Impacts

## Overview

- B.1 Travel behaviour and the economy have been impacted by the Covid-19 pandemic and have resulted in changes in the way that people travel and the way businesses operate. In this chapter we will assess some of the key data findings found throughout the period to better understand the levels of impact on transport and travel generally.

## COVID Timeline

- B.2 In January 2020, Covid-19 first appeared in the UK. By 30th November 2020, there were an estimated total of 1.6 million people testing positive to the virus in the UK with 58,24523 cases resulting in deaths.<sup>24</sup>
- B.3 As stated within the GMCA Covid-19 Management Plan Executive Summary, GM had more than 16,000 confirmed cases and nearly 2,800 people died during the first four months of the Covid-19 pandemic.<sup>25</sup>
- B.4 In Summer 2020, North West England was one of the worst affected areas by the pandemic with GM placed under additional restrictions on 31st July 2020. Throughout 2020, GM continued to experience a disproportionate impact to the rest of the UK from these additional restrictions, such as the three-tier system for lockdowns across England. This three-tiered system was first announced by the Government in October 2020 to '*simplify and standardise local rules*'.<sup>26</sup>
- B.5 On 5th November 2020, the Government imposed a second national lockdown with restrictions on continued business activity in England. These restrictions were in place between 5th November and 2nd December 2020, followed by a return to 3 Tier system restrictions.
- B.6 On 19th December 2020 the Government introduced an additional 4th Tier, with lockdown measures beginning in London and the South East, after having identified the Alpha (Kent) variant, coming into effect on 21st December 2020 until a third nationwide lockdown was re-introduced on 6th January 2021.
- B.7 March 2021 saw Step 1 of the Government's roadmap being introduced, with schools reopening and outdoor gatherings being allowed with the proviso of staying local. April 2021 saw Step 2 of the roadmap allowing limited indoor contact, businesses such as hairdressers to reopen and outdoor hospitality. Step 3 came into effect in May 2021, allowing indoor meetings limited to 6 people and 10,000 people for large sport stadiums. Step 4, on 19th July 2021, saw the remaining venues such as nightclubs reopen, and the removal of most other restrictions.
- B.8 With the discovery of the Omicron variant, Plan B measures (face coverings indoors and use of Covid Passes at specific settings such as nightclubs), which

<sup>23</sup> UK deaths is based on deaths within 28 days of a positive test and does not include excessive deaths.

<sup>24</sup> Coronavirus (COVID-19) UK Government Dashboard <https://coronavirus.data.gov.uk/> (accessed 01/10/20)

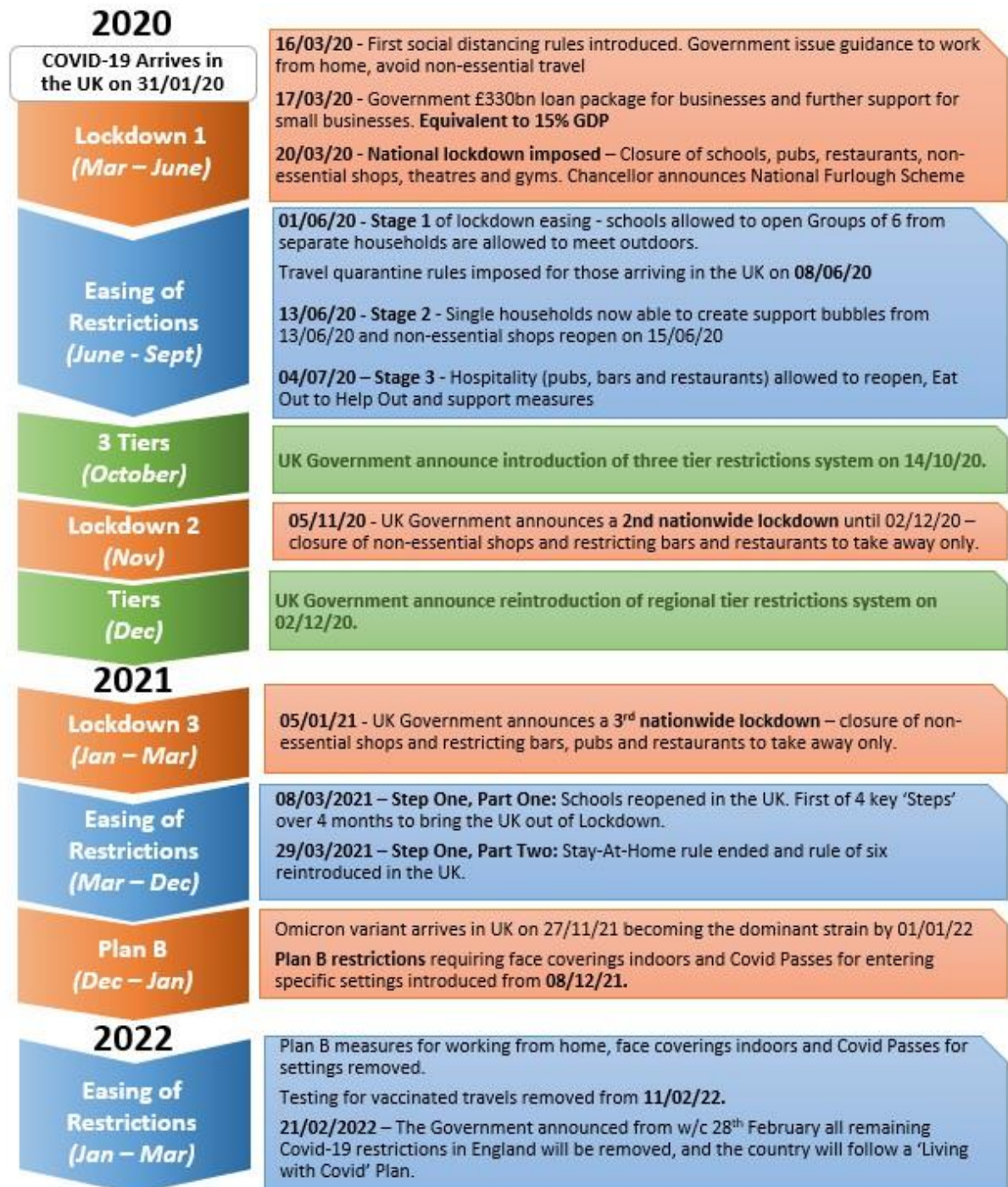
<sup>25</sup> COVID-19 Management Plan – Executive Summary (GMCA) <https://greatermanchester-ca.gov.uk/coronavirus/COVID-19-management-plan/>

<sup>26</sup> Prime Minister announces new local Covid Alert Levels - <https://www.gov.uk/government/news/prime-minister-announces-new-local-covid-alert-levels>

also recommended working from home where possible, were implemented from 8th December 2021 to 27th January 2022.

- B.9 A summary of the key Covid-19 events and Government responses has been captured in **Figure B-1**.

**Figure B-1 Covid-19 Timeline January 2020 to March 2022**



- B.10 The Covid-19 pandemic has had a transformative global impact to health, businesses, the economy, and way we live and interact with one another.
- B.11 At the time of the production of this note in March 2022, the UK appears to be exiting the pandemic. Case numbers are stabilising, death and in-patient numbers

remain low, reflecting the positive impact of a successful vaccine programme rollout.

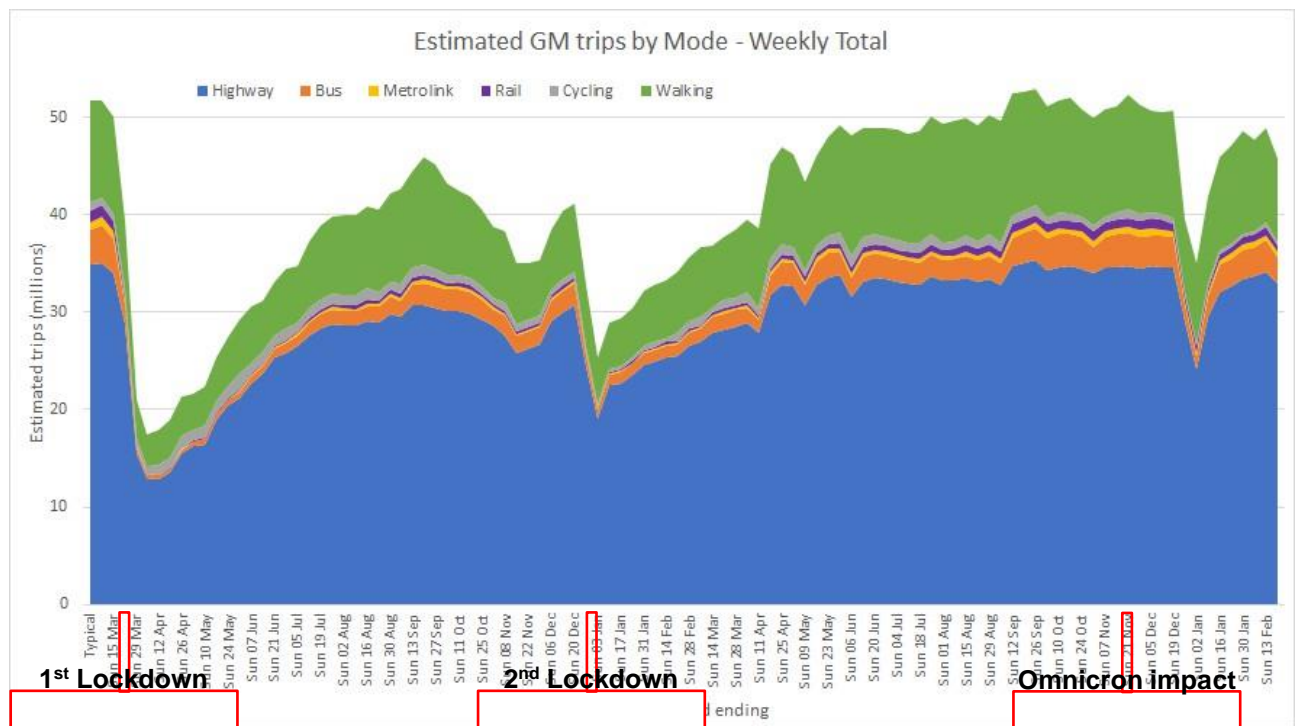
- B.12 However, emerging evidence gathered over the course of 2020 and 2021 has shown that there have been substantial changes to the economy, travel patterns and our behaviours. These changes have been driven by Government policy in the short term, however some of the behaviours adopted during Government lockdowns may continue as restrictions ease. In addition to this, economic impacts following the recent easing of restrictions have resulted in impacts which can be seen locally, nationally and globally within the economy.

## Covid-19 Impacts on Travel Behaviour

- B.13 Detailed analysis has been undertaken on the impacts of Covid-19 on travel demand within GM to compare 'pre-pandemic' and 'during pandemic' travel levels within GM.
- B.14 As shown in **Figure B-1**, there are a number of Government interventions which have had an impact on traffic levels (for all modes of transport). These include:
- Government guidance issued on 16<sup>th</sup> March 2020 to work from home 'where possible';
  - Closure of all UK schools to children, apart from those who have key worker guardians on 20<sup>th</sup> March 2020;
  - Closure of the hospitality and leisure sector on the 20<sup>th</sup> March 2020 including pubs, bars, restaurants, gyms, theatres etc.;
  - Re-opening of schools to all children in September 2020 alongside the UK Government encouraging workers to return to the office;
  - Implementation and extension of the Government Tiered restrictions;
  - Return to lockdown conditions on 5<sup>th</sup> November 2020, 2<sup>nd</sup> December 2020 and 6<sup>th</sup> January 2021; and
  - Hotel quarantine for travelers from high-risk countries.
- B.15 Since the beginning of the pandemic, travel patterns across the UK have significantly changed, driven by changing Government guidelines and the perception of transmission risks on certain forms of transport. An overview of the changing trends of travel behaviour by mode in Greater Manchester is provided in **Figure B-2 to Figure B-6**; the data has been provided by TfGM. Three key dates have been flagged in each figure: the first and second national lockdowns plus the emergence of the Omicron variant.

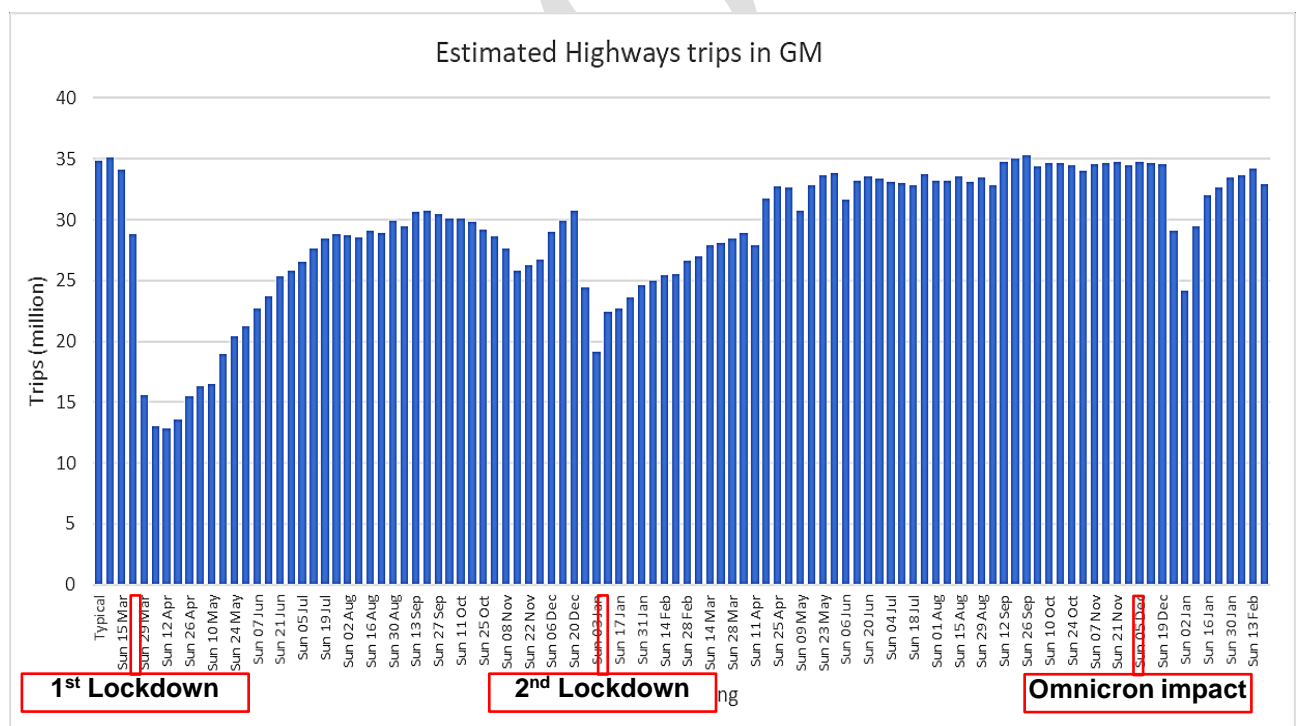


**Figure B-2 Overview of travel behaviour – All Modes**



Source: TfGM

**Figure B-3 Overview of travel behaviour – Highway**



Source: TfGM

Figure B-4 Overview of travel behaviour – Bus

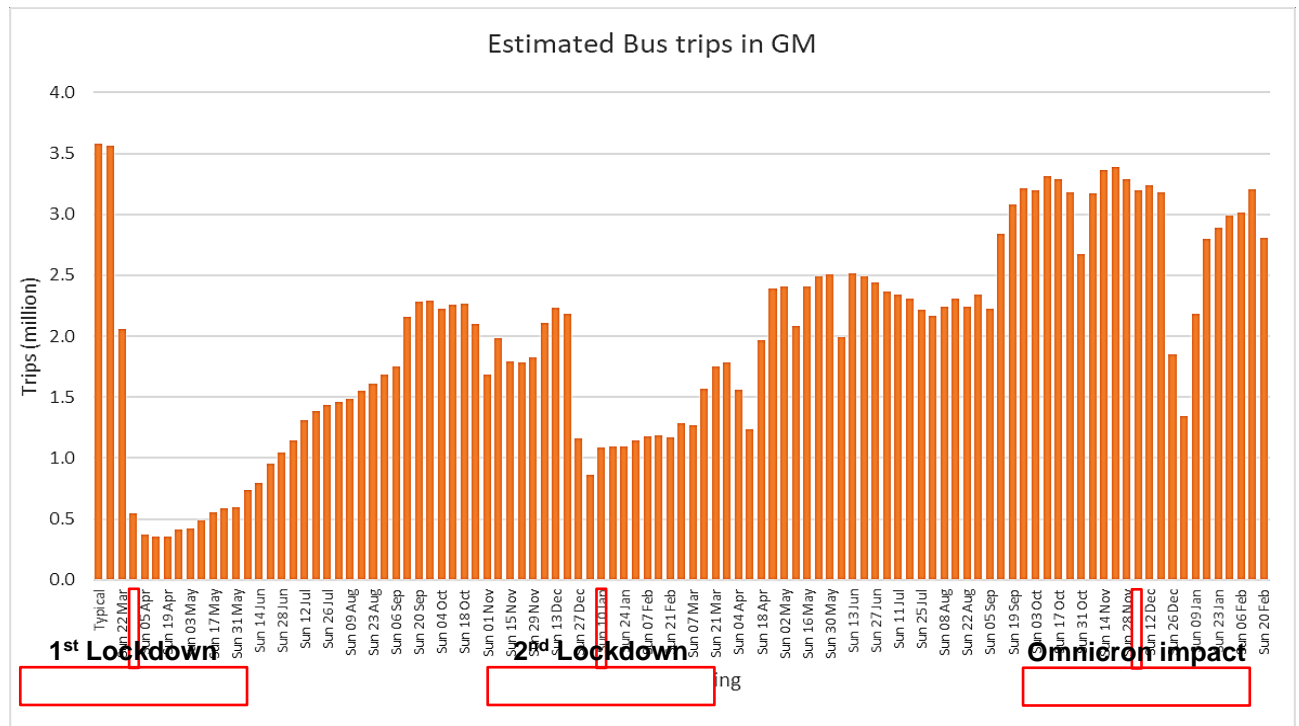
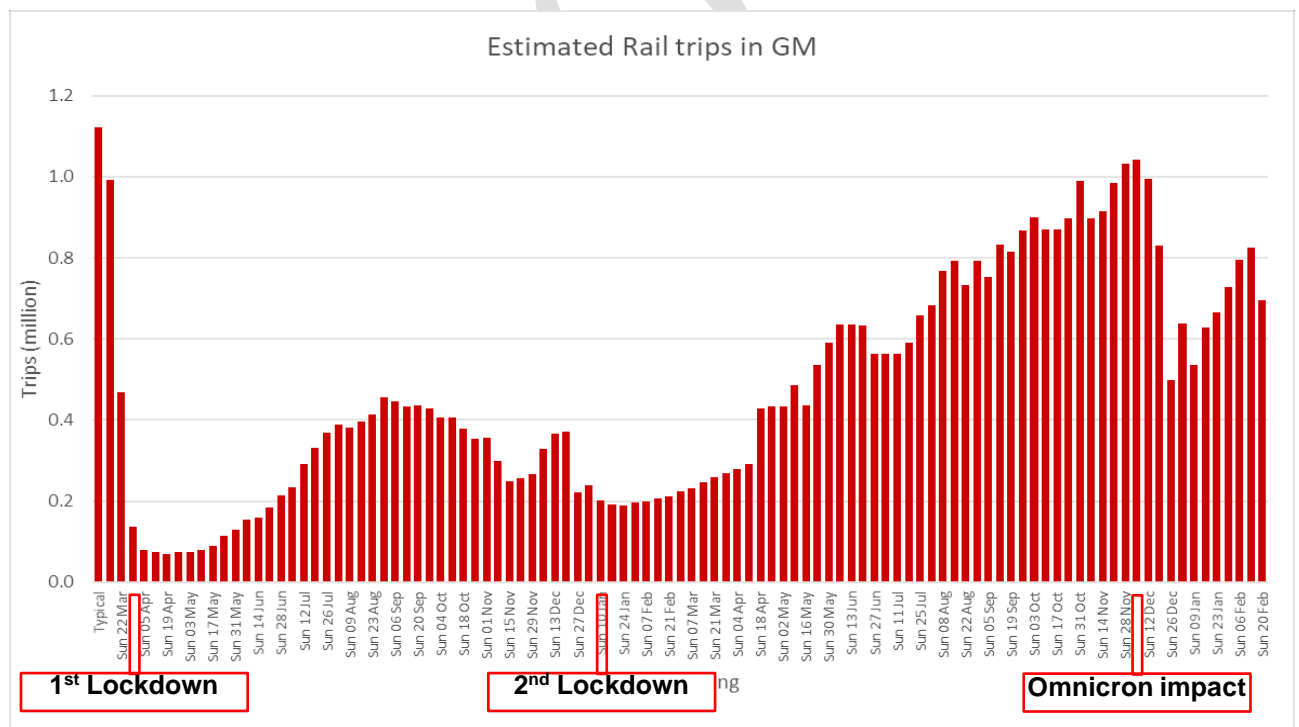
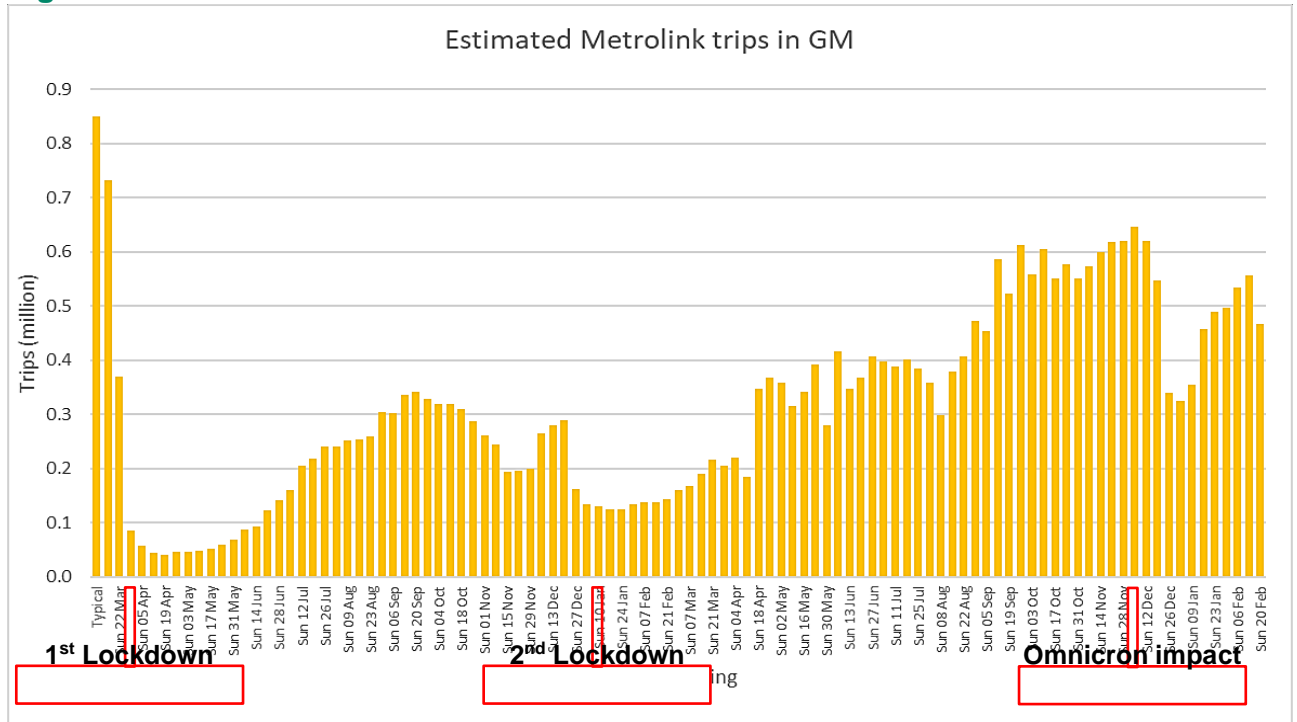


Figure B-5 Overview of travel behaviour – Rail





**Figure B-6 Overview of travel behaviour – Metrolink**



Source: TfGM

- B.16 These figures illustrate that the impact of the pandemic has been pronounced and the extent to which pre-pandemic travel volumes have returned varies by mode. In summary, at the aggregate level across GM:
- Highway trips are close to pre-pandemic levels (approximately 95% of 'typical'); and
  - Public transport trip levels are between 60% and 75% of pre-pandemic / typical levels with bus performing more strongly than rail / Metrolink.

## Local Traffic Impacts

- B.17 Further analysis was undertaken regarding traffic flows on the local highway network, in order to understand the changing highway demand levels at various points through the pandemic. This has provided an insight into how the Covid-19 related travel guidance and changing behaviours because of the pandemic have impacted travel across GM.
- B.18 This analysis has considered changing travel levels at a range of locations across Greater Manchester, to understand how traffic flows have changed on the following:
- Roads near to the Regional Centre;
  - Key radial routes;
  - Roads adjacent to local centres within GM; and
  - Roads accessing centres of employment.
- B.19 The analysis has considered several points in time, comparing:
- September 2019 (before the pandemic);

- September 2020 (during the pandemic);
- November 2021 (during pandemic – pre Omicron); and
- January 2022 (most recent, though impacted by Omicron variant).

B.20 Traffic flow data was extracted and analysed from TfGM's C2 Database<sup>27</sup>. These have been reviewed and presented for the 2-way hourly link volumes, by hour, at the following locations:

- Manchester Rd (A56) / 15m South of Ashlor St, Bury (ATC);
- Princess Rd (A5103) / 100m North of Bonsall St, Hulme, Manchester (ATC);
- Washway Rd (A56) / 40m North of Hunston Rd, Sale, Trafford (ATC);
- Bury New Rd (A56) / 90m North of Kingswood Rd, Prestwich, Bury (ATC); and
- Centenary Way (A576) / 160m North of Guinness Rd, Trafford Park, Trafford (ATC)

B.21 Using these specific locations around Greater Manchester the traffic behaviours at each location type can be assessed.

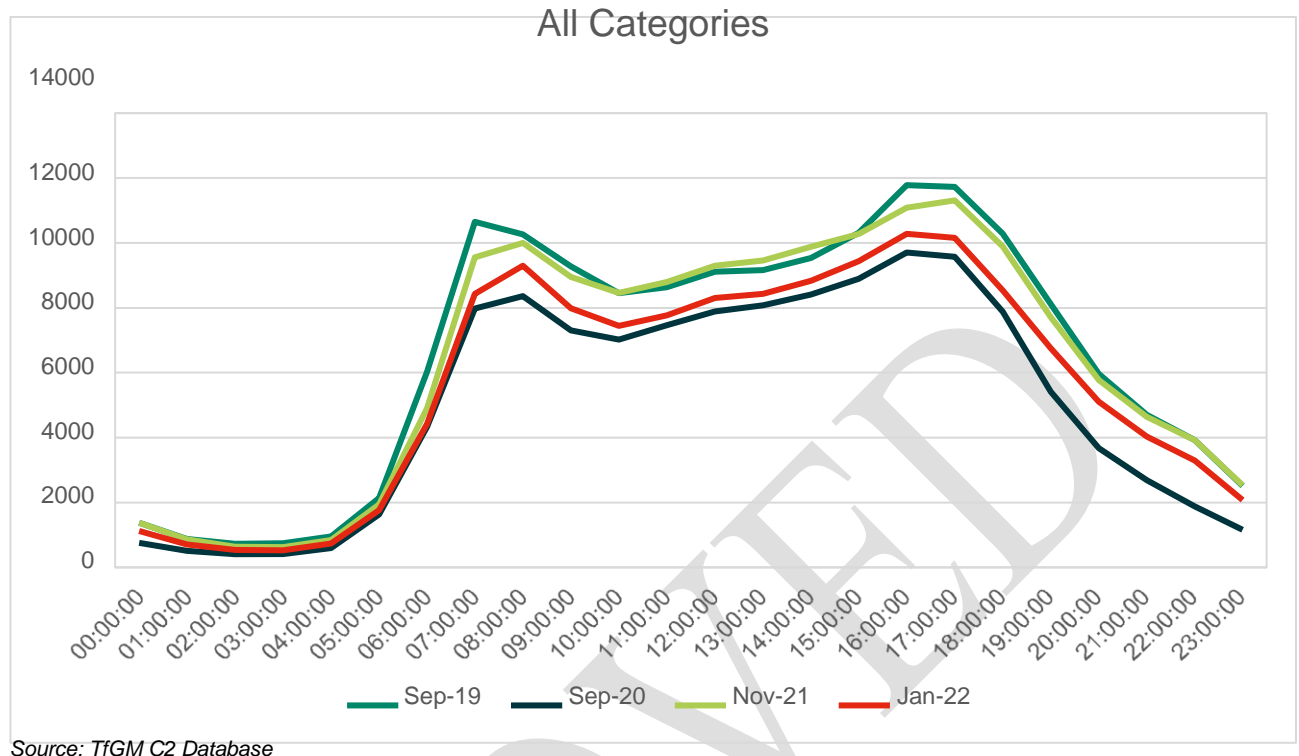
### **General Traffic Conditions**

B.22 Averaging the sites identified above (see **Figure B-7**) suggests there has been a change in travel behaviour throughout the pandemic, noting the following key observations:

- The AM and PM peak periods have remained, although there is a dampening down effect on the peaks, with less variation between peak flows and interpeak flows, as the interpeak has continued to perform strongly.
- During late 2021, highway demand was almost back at pre-pandemic levels, there was then a noticeable drop again in demand as a result of the Omicron variant in December 2021.
- There has been some recovery during the peak periods, though they have not yet returned to pre pandemic levels.
- It is also noted that the earlier part of the AM peak is less strong than pre pandemic levels, with the AM peak now occurring 08:00 to 09:00, rather than 07:00 to 08:00 based on the sample of data sites.
- It also appears that the evening traffic (after 19:00) in 2022 is recovering at a slightly faster rate than the daytime traffic flows. This returned to pre-pandemic levels in November 2021 however, there has been a slight drop again in 2022, although it has been less impacted than other times of day. During the 2020 restrictions, the evening economy was significantly restricted by the Covid-19 restrictions in place at the time.

<sup>27</sup> <https://tfgmc2.drakewell.com/multinodemap.asp>

**Figure B-7 Change in traffic flow levels by time of day (all areas)**

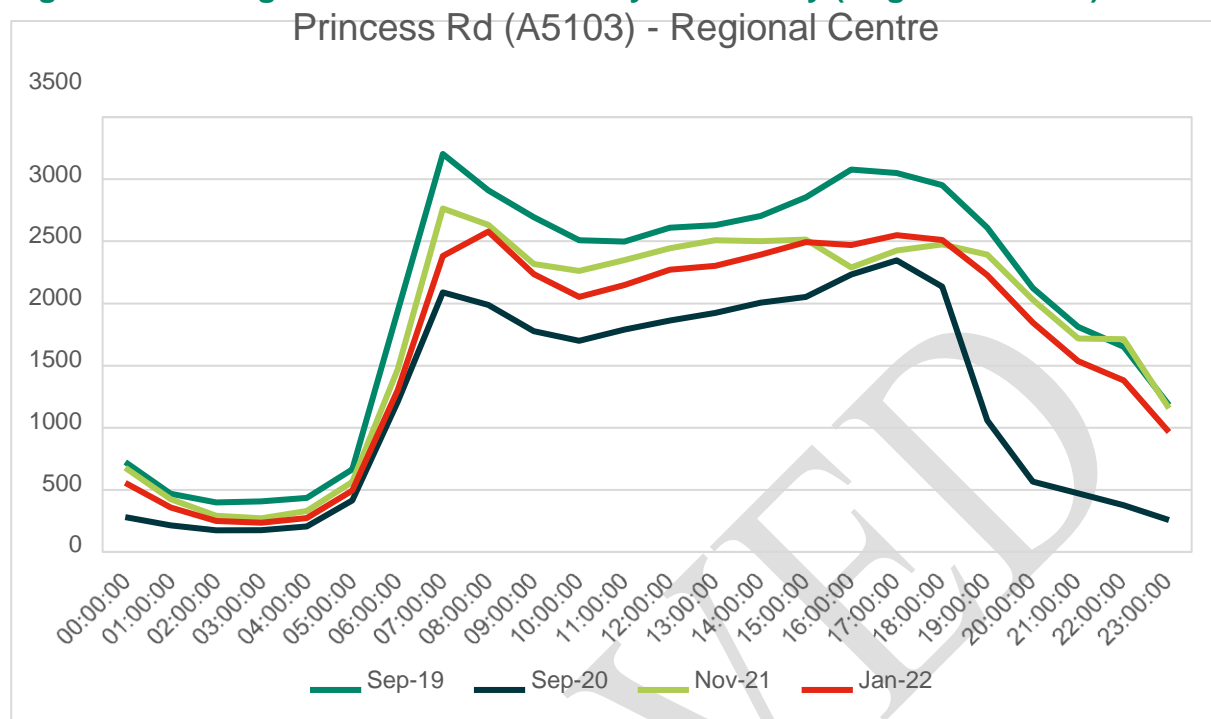


### Roads adjacent to the Regional Centre

**B.23** Traffic flows adjacent to the Regional Centre have been significantly impacted throughout the pandemic (see **Figure B-8**). The following key trends have been identified:

- From the data assessed, the pandemic (and associated restrictions) appears to have had the greatest impact on regional centre flows, with the largest decrease in 2020 and the slowest recovery;
- The recovery of traffic flows in the peaks is still subdued, though traffic flows during the Omicron variant have been higher than in Autumn 2020, unlike what is seen at local centres;
- In 2020, Covid-19 restrictions had a considerable impact on demand for travel relating to the Regional Centre, with heavy restrictions placed on sectors such as leisure, tourism, and the night time economy. By November 2021, the easing of COVID restrictions resulted in a return of travel demand to the Regional Centre, showing considerable recovery at particular times of day, reaching close to 2019 levels. The 2022 travel demand to Mar-22 also showed a strong return of traffic during the evening periods, though the Omicron variant is likely to be keeping these slightly below pre-pandemic levels at present.
- The early part of the AM peak is now much weaker than prior to the pandemic, and the PM peak is less pronounced. In November 2021, traffic flows were slightly reduced from pre pandemic levels, with the PM peak most strongly impacted. In January 2022, the PM peak appears to be starting to recover, with a slightly later AM peak.

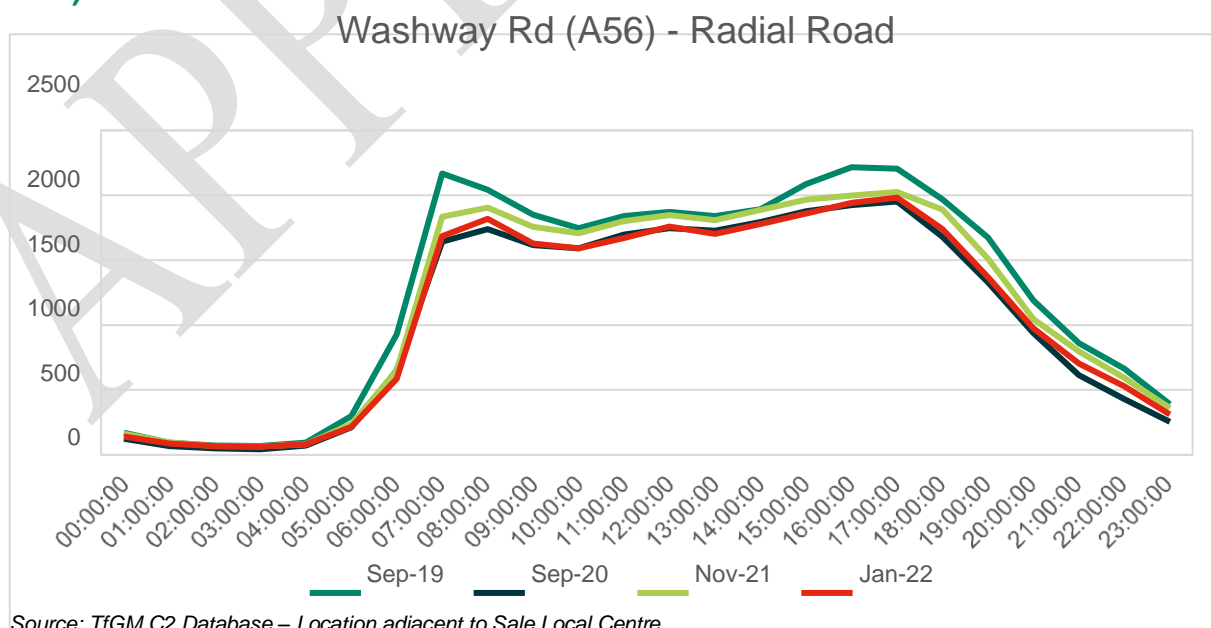
**Figure B-8 Change in traffic flow levels by time of day (Regional Centre)**



## Radial Roads

- B.24 On Washway Road in Sale (see **Figure B-9**), its proximity close to the M60, and as a key radial route, has resulted in a high level of traffic demand at various points throughout the pandemic. The site is also close to the Local Centre of Sale. Demand has remained strong at the various points assessed although, as with most other locations, the peak periods are showing slightly lower demand in 2022.

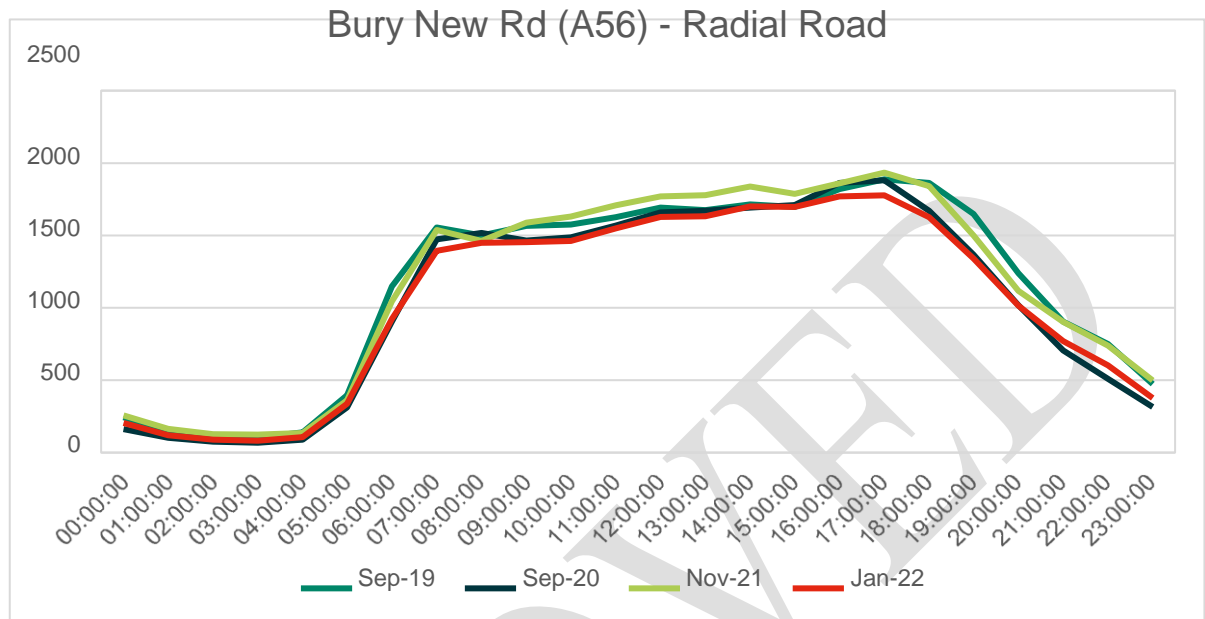
**Figure B-9 Change in traffic flow levels by time of day (Radial Roads Outside M60)**



- B.25 Another key radial route north of the Regional Centre is Bury New Road (see **Figure B-10**). This site is also a key radial, though also serves local centres, such as at Prestwich. This location has shown a strong recovery of travel behaviour with travel at certain times of day exceeding pre-pandemic levels, especially during the

interpeak, both in autumn 2020, autumn 2021 and currently in 2022. The evening period has, however, shown a slower recovery.

**Figure B-10 Change in traffic flow levels by time of day (Radial Roads Inside M60)**

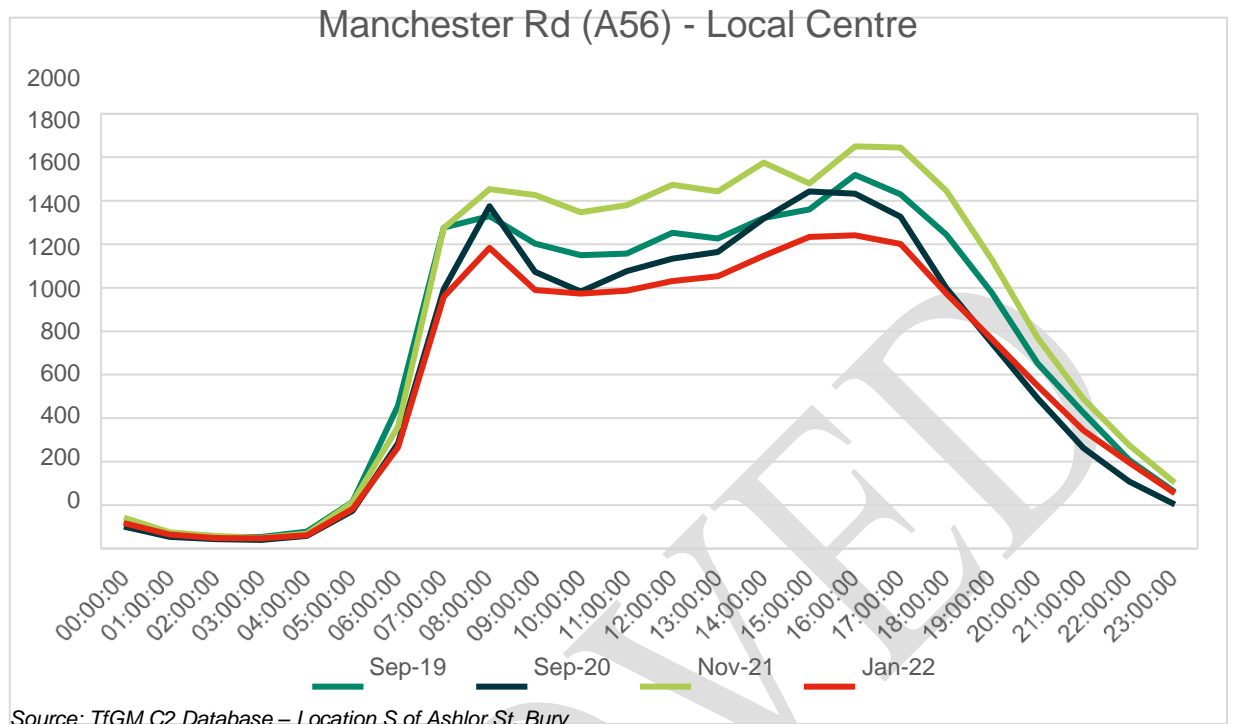


Source: TfGM C2 Database – Location N of Kingswood Rd, Prestwich (Near to M60 J17)

## Local Centres

- B.26 Throughout the pandemic, as the UK Government eased travel guidance, travel demand in the vicinity of local centres, have bounced back strongly. **Figure B-11**, shows the A56 Manchester Road near Bury, which experienced a strong bounce back effect in Autumn 2020, when travel restrictions were eased. **Figure B-11** shows the later part of the AM peak and the early part of the PM peak exceeding pre pandemic levels, plus a strong interpeak and was likely an impact of more localised travel.
- B.27 By the end of 2021, demand had exceeded 2019 pre-pandemic levels by a clear margin, however this demand fell significantly in January 2022. The recent 2022 data shows the impacts of restrictions associated with the Omicron variant which has suppressed traffic flows once again.

**Figure B-11 Change in traffic flow levels by time of day (adjacent to Local Centres)**

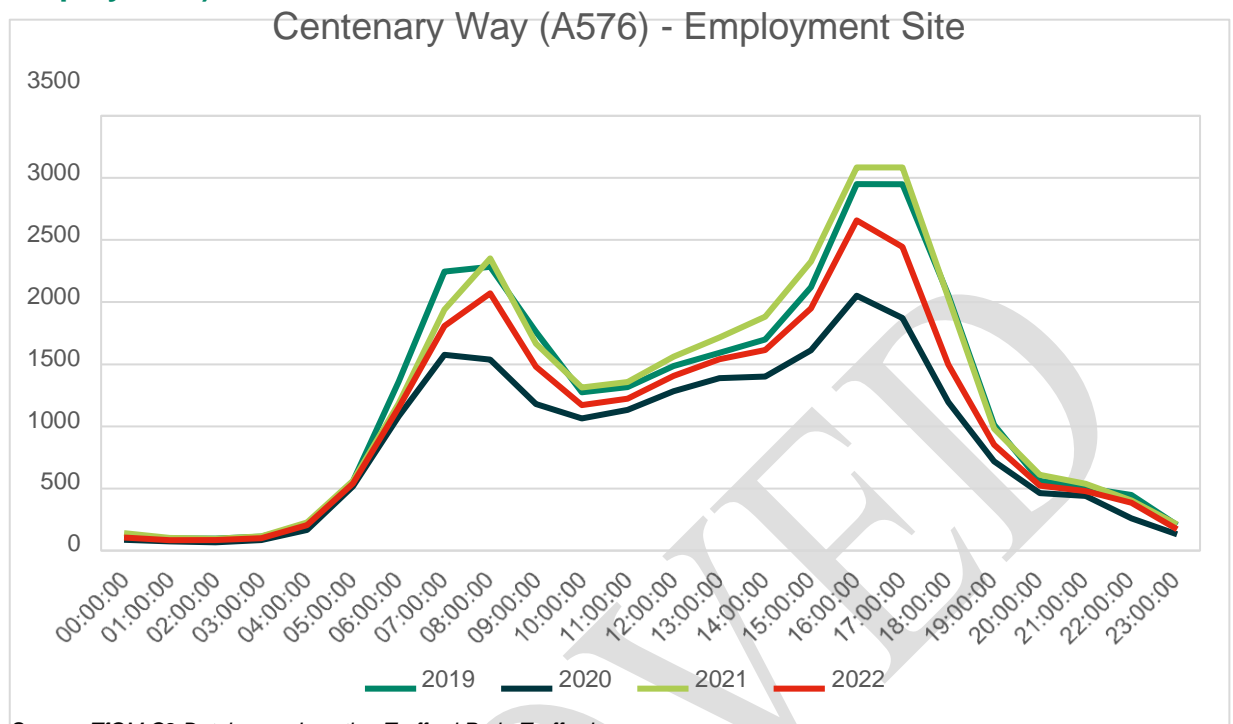


### Centres of Employment (Trafford Park)

- B.28 Trafford Park is a major site of employment within Greater Manchester, with traffic flows accessing this employment area changing significantly during the pandemic.
- B.29 During the limited easing of travel restrictions in Autumn 2020, traffic flows to/from Trafford Park remained low, with limited return of higher peak time travel flows. This was possibly due to the higher levels of working from home at the time. The more recent data from November 2021 shows flows higher than pre-pandemic levels. January 2022, though impacted by the Omicron variant, shows a recovery of peak hour travel demand, close to pre pandemic levels, although the early part of the AM peak and the later part of the PM peak show a slightly weaker recovery. Interpeak travel is also similar to pre pandemic levels (See **Figure B-12**).



**Figure B-12 Change in traffic flow levels by time of day (Centres of Employment)**



### Summary

- B.30 The review of local traffic flows at various locations across GM has shown considerable variations in changing travel behaviour by location, when compared to pre-pandemic levels. This is likely to be impacted by changing travel habits, although the recent Omicron variant is likely to be impacting some travel behaviour in the 2022 data, as shown in **Figure B7**, general traffic levels in Autumn 2021 showed overall recovery in traffic flows above pre-pandemic levels.
- B.31 The change in travel behaviour by location since September 2019 is summarised in **Table B-1**.
- B.32 Considering the position in November 2021, when travel patterns were least affected, it is notable that Local Centre traffic flows were higher than previously whilst the Regional Centre flows were still much reduced. For radial routes and employment centres, overall (daily) levels were back to pre-pandemic but with some variation during the day; the morning peak being less pronounced but the interpeak higher.

**Table B-1 Traffic flow changes by location type from September 2019 to January 2022**

Location Type	Period	Change relative to Sep-19 (Index=100)			
		Sep-19	Sep-20	Nov-21	Jan-22
Regional Centre	AM	100	67	88	81
	IP	100	73	95	88
	PM	100	41	92	85
	Eve	100	26	95	85
	Daily	100	61	88	83
Radial inside M60	AM	100	98	98	93
	IP	100	98	105	96
	PM	100	101	102	96
	Eve	100	80	94	83
	Daily	100	92	101	91
Local Centres	AM	100	103	108	90
	IP	100	96	115	88
	PM	100	94	113	86
	Eve	100	74	110	87
	Daily	100	90	111	86
Employment Centre	AM	100	69	95	86
	IP	100	83	108	94
	PM	100	61	102	79
	Eve	100	74	99	91
	Daily	100	74	102	88

Source: TfGM C2 Database

## Economic Related Impacts

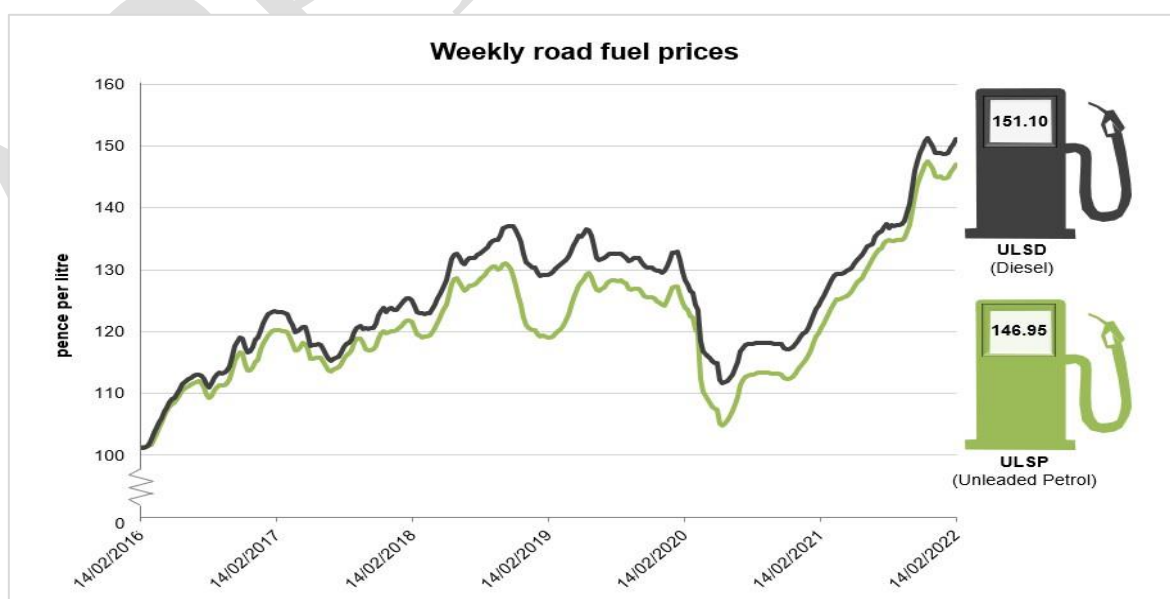
### Introduction

- B.33 Changes in the economic situation are also likely to have had an influence on travel behaviour. The section below presents the trends for a range of factors impacting the economy, several of which are likely to impact the way people travel and businesses operate.

### Fuel Prices

- B.34 There are six companies (four oil companies and two supermarkets) that feed into the weekly fuel price survey prepared by the government. These companies cover around 65% of the market. The change in fuel price is displayed in **Figure B-13**.
- B.35 The price of road fuel is volatile over shorter time periods, with prices regularly rising and falling. The key trends from during the pandemic are:
- At the start of 2020 prices appear to have been on the decline. There was then a significant fall in both Diesel and Unleaded Petrol in early 2020, corresponding with the first national lockdown.
  - During the second part of 2020, prices appear to be stable, with prices beginning to rise steadily throughout 2021 in line with global oil market prices.
  - There is a steep rise in prices towards the end of 2021, reaching record highs. This corresponds with a sudden rise in post-pandemic energy demand. This has triggered a tax freeze on petrol and diesel for the twelfth year in a row<sup>28</sup>.
  - In September 2021 long queues and forecourt closures were witnessed, caused by panic buying throughout the country, sparking a fuel shortage in Britain.

**Figure B-13 Weekly Road Fuel Prices**



Source: [gov.uk](https://gov.uk)

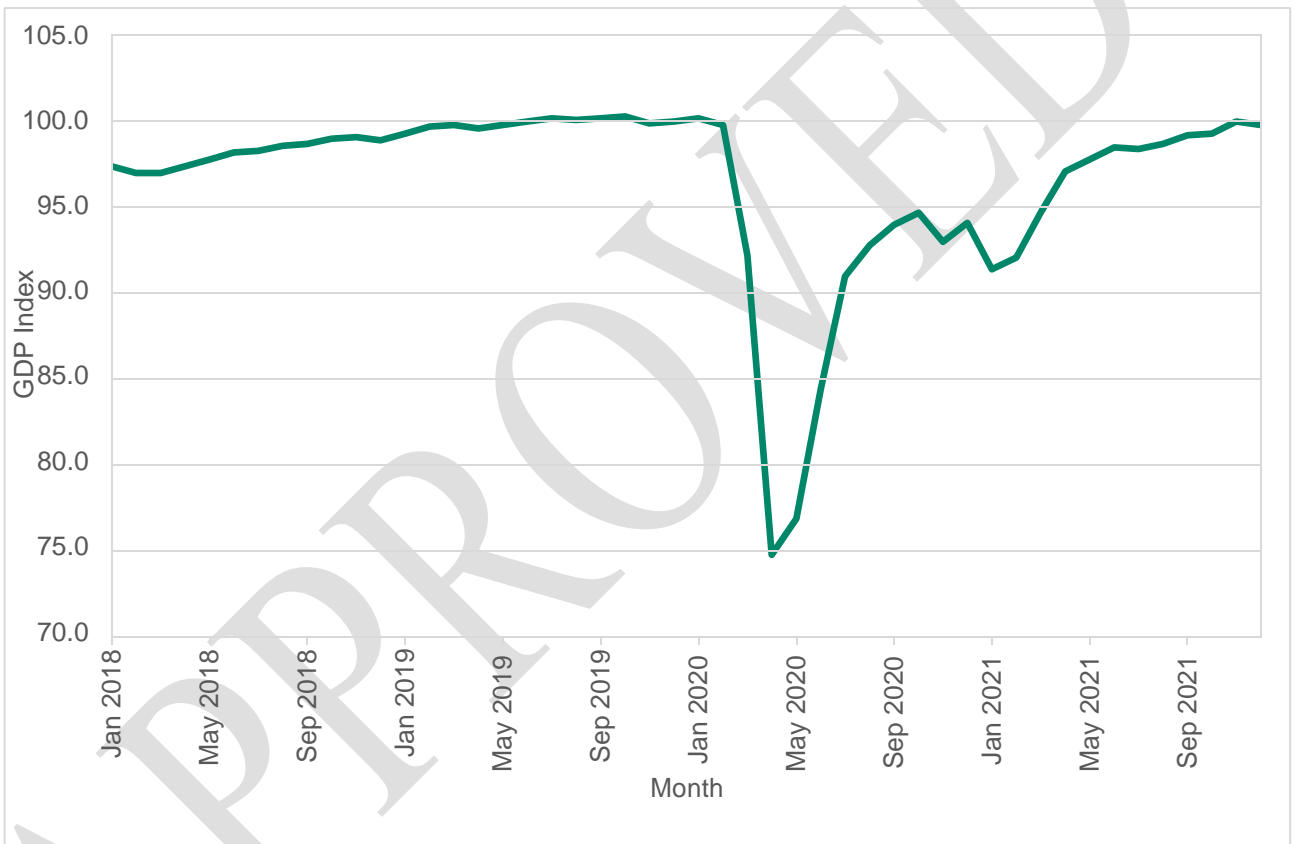
<sup>28</sup> <https://www.standard.co.uk/news/politics/budget-2021-fuel-duty-rise-axed-petrol-prices-record-highs-b962832.html>

- B.36 It was already likely that the price of fuel would remain unsteady for some time as a consequence of the impact of the pandemic and recent events in Ukraine have brought additional uncertainty to that market.

## GDP

- B.37 From bulletins on the ONS data website<sup>29</sup> the end of 2021 saw a drop in GDP by 0.2%, to equal the pre pandemic level of February 2020. In December 2021 services and construction are both above pre-pandemic levels, while production remained below. Consumer facing services fell within December, driven by a fall in retail, 8.4% below pre-coronavirus levels, contributing to the GDP fall in December 2021 (see **Figure B-14**).

**Figure B-14 GDP in the UK (Index, 2019 = 100)**



Source: [ons.gov.uk/economy](https://ons.gov.uk/economy)<sup>30</sup>

- B.38 Growth in average total pay (including bonuses) of 4.3% and growth in regular pay (excluding bonuses) of 3.7% among employees was seen in October to December 2021<sup>31</sup>. In real terms (adjusted for inflation), total and regular pay fell for the year by 0.1% and 0.8% respectively.

## Imports and Exports

- B.39 **Figure B-15** shows the trends in UK goods imports and exports throughout 2019, 2020, and 2021. After an initial decrease in imports at the beginning of the pandemic, this appears to have recovered. There was another significant decrease at the end of 2020, however imported goods are on the increase back to

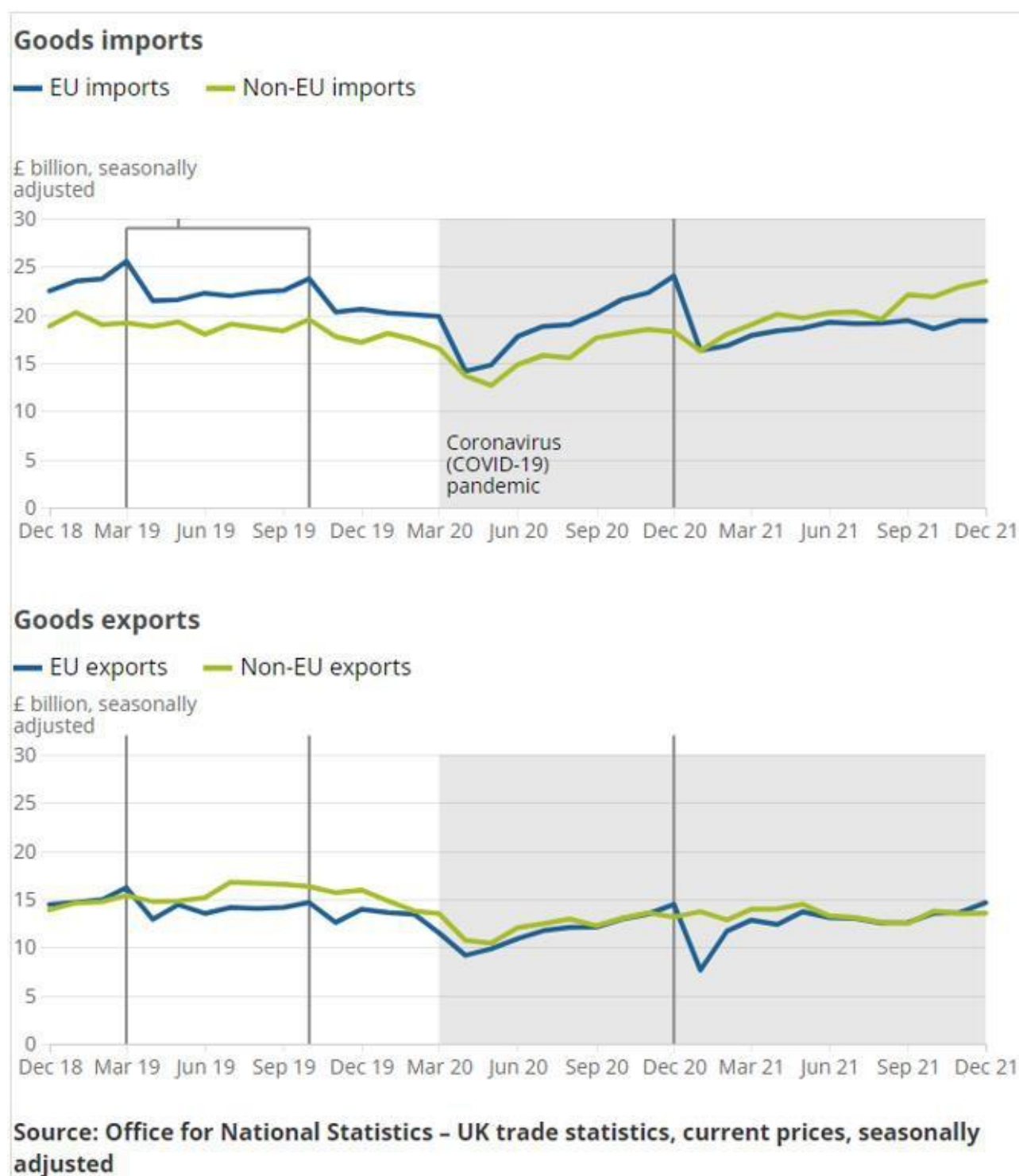
<sup>29</sup> <https://www.ons.gov.uk/economy/grossdomesticproductgdp/bulletins/gdpmonthlyestimateuk/december2021>

<sup>30</sup> <https://www.ons.gov.uk/economy/grossdomesticproductgdp/bulletins/gdpmonthlyestimateuk/december2021>

<sup>31</sup> <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/bulletins/averageweeklyearningsingreatbritain/february2022>

pre-pandemic levels. There was less impact on exports, with these remaining steady throughout.

**Figure B-15 Import and Exports**



Source: [ons.gov.uk/economy](https://ons.gov.uk/economy)<sup>32</sup>

## Centre for Cities – Cities Outlook

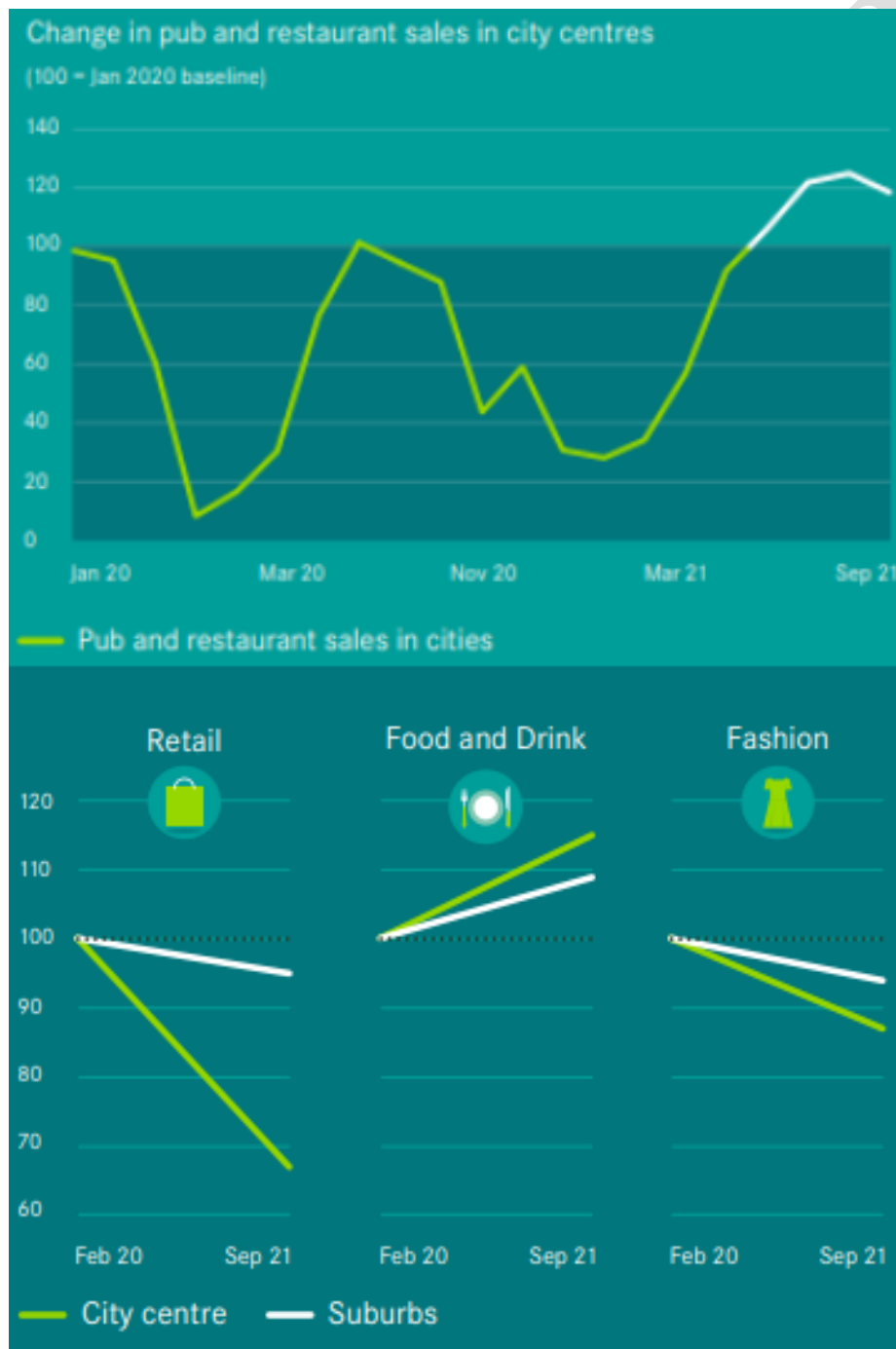
- B.40 Centre for Cities produced the Cities Outlook 2022 report looking in-depth at the state of UK high streets, to get a sense of the short-term impact of the pandemic on Britain's town and city centres, and the long-term consequences and implications this has for the Government's levelling up agenda. This report showed

<sup>32</sup> <https://www.ons.gov.uk/economy/economicoutputandproductivity/output/articles/ukeconomylatest/2021-01-25#output>

that there was a quick and considerable shift away from high streets to online shopping during the pandemic. However, in most cities the shift stalled, or slightly fell again once shops reopened.

- B.41 The Cities Outlook report also studies the impacts on pubs and restaurants, stating that the fashion sector was hit harder than pubs and restaurants. **Figure B-16** shows the trend in sales throughout 2020 and 2021. There are clear decreases in sales corresponding to the national lockdowns but in all instances, these soon recover when the sector reopens. This is also reflected in the suburbs, with retail and fashion experiencing a slight decline from Feb 2020 to September 2021 but food and drink on a steady incline.

**Figure B-16 Change in pub and restaurant sales in City Centres and Suburbs**





Source: [ons.gov.uk/economy](https://ons.gov.uk/economy)<sup>33</sup>

- B.42 Due to the work from home regulations and, for many, working from home becoming a regular part of the working week, it is feared the reduced footfall in cities will have a lasting effect on retail, hospitality, and transport sectors. **Figure B-17** show the weekday footfall in London, Manchester and Birmingham. Although not yet back to pre-pandemic levels, there is a steady climb in footfall in the major cities with Manchester appearing to recover more quickly than Birmingham, and London taking considerably longer.
- B.43 The more significant impact on London may be related to the impact of Covid-19 on international tourism.

**Figure B-17 Weekday footfall**



Source: [ons.gov.uk/economy](https://ons.gov.uk/economy)

<sup>33</sup> <https://www.centreforcities.org/>