

Lost worker vs. tourism expenditure in the Central Activities Zone (CAZ)

October 2020

Introduction

During the pandemic, the loss of expenditure in London's Central Activities Zone (CAZ) due to both workers staying at home and tourists being unable or choosing not to visit has had a major impact on the retail, leisure and hospitality sectors. This analysis seeks to investigate the relative importance of these two cohorts to the CAZ, by estimating the loss in consumer expenditure in 2020 compared to a no-Covid scenario.

The initial context for this work was in September 2020 when the Government was encouraging workers to return to the office, but quarantine restrictions remained in place for travellers from most international destinations outside of the UK's travel corridor list.

This context has since changed, with the CAZ now unlikely to see either tourists or workers return soon. However, the analysis remains relevant for planning for the future of the CAZ and for considering potential policy options when more workplaces and the tourism industry begin to open again.

To answer the research question, we estimate local expenditure from commuters to the CAZ in 2020, in a scenario with and without Covid-19. We compare this difference to the anticipated drop in inbound and domestic tourist expenditure in 2020, which we estimate by adjusting forecasts for London produced by VisitBritain.

Readers should note, this is not an estimate of the total economic impact of Covid-19 on the CAZ, it is solely focused on comparing the relative loss in consumer expenditure from these two cohorts. We do not estimate any externalities such as potential agglomeration benefits from workers sharing the same space or being in physical proximity of each other. Expenditure on transport is excluded, as we are primarily interested in the impact on the retail, leisure and hospitality sectors in the CAZ.

Summary

- Based on VisitBritain forecasts, we estimate a **£10.9bn loss in tourism expenditure in the CAZ** (£3.5bn domestic and £7.4bn inbound) relative to forecast expenditure in 2020 without Covid-19.
- Our modelling suggests a smaller **£1.9bn loss in expenditure from commuters to the CAZ** from workplaces being closed. £1.4bn of this expenditure is from commuters from London and £0.5bn is from commuters outside of London.

- **This suggests that restrictions on tourists being able to visit London are having a bigger impact on expenditure in the CAZ, and in turn on the businesses that rely on this expenditure, than workers staying at home.**
- While some domestic tourists may now be visiting other parts of the UK, benefiting those local economies, businesses in central London are suffering. The dramatic fall in international tourists to central London is a loss to London's economy and the whole of the UK, especially as London acts as a gateway for many tourists who then go on to visit other parts of the country¹.
- There is uncertainty in some of our assumptions. **The analysis should therefore be used with caution and appropriately caveated.** Caveats which are non-biased (i.e. it isn't clear whether they over- or underestimate the gap between lost tourism and commuter expenditure) are:
 - In line with VisitBritain forecasts, we assume no second wave of the virus. Any further social distancing restrictions would exacerbate any fall, meaning the loss in both worker and tourism expenditure for the rest of the year would be underestimated.
 - Data on tourism expenditure is of higher quality and is more comprehensive as it is collected through regular official surveys. For worker expenditure, we rely on estimates from third-party survey evidence which is hard to verify in terms of its quality and accuracy. For example, two of the surveys are based on UK workers rather than London workers. The surveys are also based on office workers, whereas we estimate lost expenditure for all workers in the CAZ.
 - Google Mobility Data has been used to estimate levels of homeworking when workplaces are closed. The data is relatively new, and its strengths and weaknesses are less well known than official data sources.
 - The assumed proportion of tourism expenditure on transport is based on analysis of money spent during domestic trips in the UK, rather than domestic and inbound trips in London.
- Other assumptions used in the analysis introduce an element of known bias but have been used due to lack of alternatives. In other words, we have good reason to believe they lead to either an over- or under- estimate of the loss in expenditure. These are as follows:
 - To adjust the London inbound tourism expenditure estimates to focus on the CAZ, we use local authority district level data on the GVA impact of inbound tourism as a proxy, assuming 92% of expenditure is within the CAZ. For domestic tourism expenditure, local authority district level data on domestic tourism expenditure has been used, assuming 60% of expenditure is within the CAZ. These assumptions are likely to be overestimates, as nine of the ten local authority districts only fall partially within the CAZ, yet we assume all expenditure in all ten can be attributed.
 - For office-related spend, we assume that all of it is made locally, but this is unlikely to be the case. For example, some items such as gifts for colleagues might be purchased online rather than at a local retailer. In addition, no allowances are made for days that workers would normally spend working from home, or away from the office, in the counterfactual no-Covid scenario. These assumptions are likely to overestimate the loss in expenditure in the CAZ.
- However, **we consider our estimate for the loss in worker expenditure to be a conservative one**, as other expenditure associated with workplaces being open is not currently included in the analysis due to a lack of data. This includes expenditure on non-office related items, e.g. personal services such as haircuts and gym memberships, ad hoc expenditure during lunch hours, or after-work activities that take place due to the concentration of workers. Also excluded due to a lack of data is

¹ See London and Partners, [Understanding the London+ Visitor](#), page 18. 15% of London visitors venture outside the capital to visit another UK location, with 1.6m estimated international visits to London and at least another UK location a year.

expenditure by businesses on company expense accounts (e.g. working lunches and staff away days). In comparison, the full range of items of expenditure made by tourists are included in VisitBritain's forecasts.

- The treatment of displaced spending in the analysis should also be noted:
 - In our estimate of lost worker expenditure, we exclude workers who live and work in the CAZ as we assume that they will substitute workplace-related expenditure for home working-related expenditure - meaning no net loss to the CAZ. This is likely to be an oversimplification as these workers might only substitute a proportion of their expenditure (meaning there would still be a net loss to the CAZ). However, estimating such levels of displacement is beyond the scope of this analysis.
 - We have been unable to adjust the tourism expenditure estimates for displacement as the data is not sufficiently broken down by geography. VisitBritain's estimate of domestic tourism expenditure includes intra-London trips, which is likely to include CAZ residents visiting elsewhere in the CAZ. This means a larger group of Londoners has been considered in the tourism expenditure estimates in comparison to worker expenditure.
- **Notwithstanding the caveats described above, the difference in lost expenditure is considerable at £9.0bn.** Workplace-related expenditure omitted from the analysis (e.g. on personal services or business expenses) would need to increase by £59 per worker per day (to £72 per day) for total lost expenditure to be on a par with that lost from tourism.
- It is worth noting that tourism expenditure and expenditure relating to workplaces being open are not fully independent. For example, in 2019 business trips made up approximately 18% of inbound trips to London² and 28% of domestic overnight stays³. Therefore, some tourism expenditure is dependent on workplaces being open.

Loss in tourism expenditure

The inputs for our estimates are the latest forecasts from VisitBritain for tourism expenditure in London in 2020⁴. There are separate models for inbound and domestic tourism:

- Inbound tourism forecasts are based on the International Passenger Survey⁵.
- Domestic tourism forecasts are based on overnight stay statistics from the Great Britain Tourism Survey (GBTS) and day trip statistics from the Great Britain Day Visits Survey (GBDVS)⁶. Intra-London trips are included, although it has not been possible to distinguish whether this includes trips within the CAZ.

To estimate the loss in tourism expenditure we have compared forecast 2020 expenditure against a counterfactual 'no Covid' scenario. The 'no Covid' counterfactual has been estimated by uplifting 2019

² VisitBritain, [Inbound nation, region & county data](#), 2019.

³ Based on there being 3.37m domestic overnight visits to London for business (Visit England, [Great Britain Domestic Overnight Trips Summary – Business trips – 2019](#)) and 12.16m total domestic overnight visits (Visit England, [Great Britain Domestic Overnight Trips Summary – All Trip Purposes – 2019](#)).

⁴ See London Datastore, [Tourism estimates for London in 2019 and forecasts for 2020](#), London Tourism Spend Forecast 2020.

⁵ See ONS, [International passenger survey methodology](#), 2016. Face-to-face interviews are used with passengers passing through ports and on route into and out of the UK. Passengers are asked for a breakdown of spending for their trip.

⁶ See VisitBritain, [About GBTS and GBDVS](#).

expenditure by 6.6%, as per VisitBritain’s pre-Covid forecasts for UK inbound tourism in 2020⁷. This results in a £22.7bn decrease from 2019 tourism for London (£9.6bn domestic and £13.1bn inbound).

These figures are for tourism expenditure in London and not specifically for the CAZ. To estimate the proportion of inbound tourism expenditure that can be attributed to the CAZ, we have used the estimated contribution of inbound tourism to local authority district (LAD) level GVA as a proxy⁸. The ten LADs that fall either wholly or partially within the CAZ made up 92% of the estimated GVA impact of inbound tourism in London in 2017⁹. We therefore remove 8% of inbound tourism expenditure to estimate the amount that can be attributed to the CAZ.

To estimate the proportion of domestic tourism expenditure that can be attributed to the CAZ, we have used LAD level data from the GBTS and GBDVS¹⁰. On average, between 2017 and 2019, the ten LADs that fall either wholly or partially within the CAZ made up 60% of the estimated domestic tourism expenditure in London. We therefore remove 40% of domestic tourism expenditure to estimate the amount that can be attributed to the CAZ.

This results in a £17.8bn decrease from 2019 tourism expenditure (£5.7bn domestic and £12.1bn inbound).

We have then removed 39% of tourism expenditure to exclude spend on transport. This is because our estimate of worker expenditure also does not include transport costs, as we are primarily interested on the impact on the retail, leisure and hospitality sectors in the CAZ. This assumption is based on analysis of money spent during domestic trips in the UK¹¹.

Overall this results in a **£10.9bn loss in tourism expenditure for the CAZ in 2020 (£3.5bn domestic and £7.4bn inbound)**.

Table 1: Estimated loss in tourism expenditure

Tourism type	London expenditure 2019, £bn (Actual)	London ‘No Covid’ forecast expenditure 2020, £bn (Counterfactual)	London ‘With Covid’ forecast expenditure 2020, £bn	London Loss, £bn (%)	CAZ Loss, £bn	CAZ Loss excluding transport, £bn
Domestic	17.5	18.7	9.1	9.6 (51%)	5.7	3.5
Inbound	15.7	16.7	3.6	13.1 (78%)	12.1	7.4
Total	33.2	35.4	12.7	22.7 (64%)	17.8	10.9

There are several caveats and assumptions to these estimates:

- **The proportion of tourism expenditure that we assume takes place in the CAZ (92% for inbound tourism and 60% for domestic tourism) is likely to be an overestimate**, as nine of the

⁷ See VisitBritain, [2020 tourism forecast](#).

⁸ London First, [Tourist Information: Mapping the local value of international visitors](#), 2019, page 8. The estimated GVA impact is for 2017.

⁹ The ten LADs relevant to the CAZ are Camden, Hackney, Islington, Kensington and Chelsea, Lambeth, Southwark, Tower Hamlets, Wandsworth, Westminster and City of London. The GVA impact within these LADs amounts to approximately £11,985m compared to £12,973m across all of London (92%). Note that this will overestimate the proportion of tourism spend that takes place in the CAZ, as nine of these LADs are only partially within the CAZ.

¹⁰ VisitBritain, [Destination-specific research](#), Local Authorities Spreadsheet, 2017 to 2019. The estimated expenditure in the ten LADs relevant to the CAZ amounts to approximately £9,617m compared to £16,136m across all of London (60%). Note that this will overestimate the proportion of tourism spend that takes place in the CAZ, as nine of these LADs are only partially within the CAZ.

¹¹ See Kantar, [The Great Britain Day Visitor 2019 Annual Report](#), 2019, page 70. We have added all expenditure items relating to transport (11% on road transport, 10% on bus and taxi fares, 8% on rail, tube or tram tickets, 4% on travel cards, 3% on season tickets and 3% on hiring a car or other vehicle).

ten local authority districts only fall partially within the CAZ, yet we assume all the expenditure in all ten can be attributed to the CAZ.

- **The assumed proportion of tourism expenditure on transport is based on analysis of domestic trips in the UK, rather than domestic and inbound trips in London.**
- The 'No Covid' counterfactual has been estimated using pre-Covid forecasts of the predicted growth in inbound tourism to the UK, rather than domestic and inbound tourism specifically to London.
- Both the domestic and inbound modelling assumes no second wave of the virus. By the end of 2020 tourism levels are assumed to continue to be much lower than pre-Covid levels.
- Figures include both business and leisure tourism expenditure.

We have separated expenditure by domestic and inbound tourism, as some expenditure from domestic tourists will be displaced i.e., they will visit their local area instead. In this case, not all their expenditure would be a net loss to the UK. Additionally, 72% of day trips were intra-London in 2019 (i.e. trips made by Londoners)¹², suggesting that there could be a high level of displaced expenditure to other parts of London.

If we only consider inbound tourism, the net loss is lower at £7.4bn. The net loss to London is probably somewhere between this value and the overall loss to the CAZ (£10.9bn). However, estimating the level of displacement is beyond the scope of this analysis which is interested solely on the impact on the CAZ.

Loss in worker expenditure

There are no official estimates of worker expenditure at, or near, their place of work. Therefore, we rely on various pieces of research (mainly third-party surveys) to construct our own estimate of worker expenditure within the CAZ.

We have included two categories of worker expenditure: spend on lunch and other office-related spend (including after-work drinks, clothing, technology, comfort items, gifts for colleagues, charity, equipment and stationery). Our central assumption is based on the following:

- We estimate that, on average, workers will spend £1,220 a year on lunch (£5.40 per day). To arrive at this estimate, we have combined the assumption that on average Londoners spend £7.11 on lunch¹³ and that 76% of workers buy lunch when at the office¹⁴.
- We assume that workers will spend £1,715 a year on other office-related spend (£7.60 per day). This assumption is based on a national poll by Nationwide¹⁵ and excludes spend on lunch.
- Combined, this equates to an assumed worker expenditure of £13 a day or £2,940 per year.

We have carried out an illustrative sensitivity test on this assumption, with a low assumption (25% lower than the central estimate) and high assumption (25% higher than the central estimate).

¹² See VisitBritain, [GBDVS Online Data Browser for Tourism Day Visits](#), Jan – Dec 2019.

¹³ TimeOut, [Londoners spend almost £2,500 a year on lunch](#), 2015. We have adjusted their estimate of £6.60 a day to 2019 prices using the [Consumer Price Index](#).

¹⁴ Mintel, [Brits out to lunch: 76% of Brits now buy lunch out for an everyday occasion, up from 64% in 2016](#), 2017.

¹⁵ Nationwide, [Brits spend £1,700 a year on office treats and meets](#), 2020.

Table 2: Assumed annual worker expenditure (daily expenditure is shown in brackets)

Expenditure	Low (-25%)	Central	High (+25%)
Other office-related spend	£1,290 (£5.70)	£1,715 (£7.60)	£2,140 (£9.50)
Lunch	£920 (£4.10)	£1,220 (£5.40)	£1,530 (£6.80)
Total	£2,210 (£9.80)	£2,940 (£13.00)	£3,670 (£16.30)

Note: totals have been rounded.

There are several caveats and assumptions to these estimates:

- **Some of the sources used for our central assumption (Mintel and Nationwide) are based on surveys for the UK rather than for London specifically.** This could over- or underestimate worker expenditure, for example if we expect a different proportion of workers in London to buy their lunch compared to the UK, or if we expect London workers to spend a different amount on average on other office-related spend.
- **Not all workplace-related expenditure would be made locally, meaning the loss of worker expenditure would be lower.** For example, some items such as gifts for colleagues might be purchased online rather than at a local retailer. In this case not all of this expenditure would be attributed to the CAZ.
- **There are other expenditure items which have been excluded due to a lack of data, meaning the loss of worker expenditure would be an underestimate. These include:**
 - Non-office related spend, such as employees choosing to use services close to their offices rather than at home (e.g. haircuts, gym memberships and non-office related shopping) and expenditure on retail and leisure after work or during lunch breaks.
 - Business spend as a result of employees being in the office, such as working lunches, away days and entertainment. For example, Savoy Stewart estimate that the average spend per employee for Christmas parties ranges from £8 to £37 per head in UK towns/cities (not including London)¹⁶.

To estimate the total worker expenditure lost in 2020 as a result of Covid-19, we have estimated total expenditure in two scenarios: with Covid-19 and a counterfactual without Covid-19. To do so we have made the following assumptions:

- **Number of workers**
 - From the ONS 2011 Census, there are an estimated 343,224 workers in the CAZ commuting from outside of London and 929,357 commuters from within London (excluding the CAZ)¹⁷.
 - **We have excluded workers who both live and work in the CAZ**, as we assume that they would substitute workplace-related expenditure for home working-related expenditure – still spending the equivalent amount in the CAZ – meaning there would be no net loss. This could underestimate lost

¹⁶ Savoy Stewart, [UK Businesses Average Christmas Party Spend](#), 2016.

¹⁷ We considered using projections specifically for the number of office workers within the CAZ in 2016, from the London Office Policy Review 2017. This uses BRES 2014 data. However, we decided that Census 2011 was more appropriate as it provides actual rather than forecast numbers. Census data also provides the origin of workers within the CAZ, allowing us to exclude workers who live inside the CAZ.

expenditure if these workers only substitute some of their spending (i.e. if they spend less locally when homeworking than when in their usual workplace).

- We have uplifted commuter numbers by 29%, based on 2017 GLA Economics employment projections¹⁸ which estimate that 2011 employment in the CAZ would increase by 29% to 2021¹⁹. **We assume that the commuting patterns of employees within the CAZ has not changed since 2011** (i.e. we assume the split of employees who live within the CAZ, commute from elsewhere in London and from elsewhere in the UK has not changed).
 - **We estimate expenditure for all workers, rather than just office workers.** This could over- or underestimate lost expenditure as our assumptions on worker spend are based on office workers only. However, we have included all workers as we would expect non-office workers to be affected by offices being closed e.g. employees in local restaurants which rely on office workers as customers. These workers would also spend in the local economy.
- **Number of working days per month**
 - We assume that weekends, bank holidays and annual leave are spent outside of the CAZ.
 - We have spread the statutory number of annual leave days across each month (28 days, resulting in 2.3 days per month). In practice some employees may take less than 28 days annual leave, while others may have a higher annual leave entitlement.
 - Due to a lack of data, **no allowances are made for days workers would normally spend working from home, or on business outside the CAZ, in the no-Covid scenario.** This assumption is therefore likely to overestimate the loss in worker expenditure.
 - This results in an assumption that a worker spends 226 working days in the CAZ per year.
 - **Percentage of employees no longer coming into their usual workplace**
 - We have used Google Mobility data²⁰ as an estimate of the percentage of workers working from home (who would otherwise come into their place of work) for each month since social distancing measures were introduced.
 - **It should be noted that this data is relatively new and its strengths and weaknesses are less well known than official data sources.** Estimates are based on usual journey patterns, rather than through confirmation from workers that they worked from home and would have otherwise gone into their place of work if social distancing restrictions weren't in place.
 - **We have assumed that the levels of homeworking seen in September continue throughout the rest of 2020.** This is in line with VisitBritain's forecasts, where they assume there is no second wave of the virus. Further to the recent Government announcement that people should work from home if possible, it remains to be seen whether these percentages will fall again. Clearly, any further social distancing restrictions would exacerbate any fall and mean the loss in worker expenditure for the rest of the year would be an underestimate. The same caveat applies to the tourism expenditure estimates.
 - The percentages applied in the model are shown below.

¹⁸ See London DataStore, [London Long Term Labour Market Projections](#), 2017, Borough projections 1971-2050.

¹⁹ Actual employment in the CAZ was 1,674m in 2011 compared to a 2021 projection of 2,162m. Note that a projection is not available for 2020, hence why we have used 2021.

²⁰ See London DataStore, [Coronavirus \(COVID-19\) Mobility Report](#), Home Working by month. Data has been used from March to September 2020. The data estimates changes in how many people are staying at home and going to places of work compared to normal, by comparing mobility data to the same period in 2019.

Table 3: Assumed percentage of workers who are coming into their workplace in comparison to a 'No Covid' counterfactual

J	F	M	A	M	J	J	A	S	O	N	D
100%	100%	71%	28%	38%	48%	53%	55%	54%	54%	54%	54%

Using the central assumption on daily expenditure, there is an estimated **£1.9bn loss in worker expenditure for the CAZ in 2020 (£1.4bn from London commuters and £0.5bn from rest of UK commuters).**

We have separated expenditure by London commuters and UK commuters, as some of the expenditure from London commuters will simply be displaced i.e., they will spend near their home in London instead. In this case, not all their expenditure would be a net loss to London. If we only consider UK commuters, the net loss is lower at £0.5bn. The net loss to London is probably somewhere between this value and the overall loss to the CAZ (£1.9bn). However, estimating the level of displacement is beyond the scope of this analysis which is interested solely on the impact on the CAZ.

Table 4: Estimated loss in worker expenditure (£bn)

Commuter group	Counterfactual (£bn)	Actual (£bn)	Loss (£bn)
London commuters	£3.5	£2.1	£1.4
UK commuters	£1.3	£0.8	£0.5
Total	£4.8	£2.9	£1.9

Sensitivity tests

We have carried out sensitivity tests on two assumptions: varying worker expenditure using the low, central and high assumptions and altering the assumption on the levels of homeworking seen for the rest of 2020 (by testing a more pessimistic scenario where we revert back to the homeworking levels seen in April).

The results are summarised below, with the total loss ranging from £1.5bn to £2.8bn.

Table 5: Sensitivity test results

	September homeworking levels (Central assumption)	April homeworking levels (Pessimistic assumption)
Low	£1.5	£1.8
Central	£1.9	£2.2
High	£2.4	£2.8

Conclusion

The estimated loss of worker expenditure (£1.9bn) in 2020 compared to a no-Covid scenario is significantly lower than the estimated loss of tourism expenditure (£10.9bn). This suggests that restrictions on tourists being able to visit London are having a bigger impact on expenditure, and in turn the businesses that rely on this expenditure, than workers staying at home.

As mentioned throughout this note, there are several important caveats which mean that the estimates should be treated with caution and appropriately caveated.

There are known biases which are likely to underestimate lost worker expenditure and overestimate lost tourism expenditure, **meaning the estimated difference in lost expenditure is likely to be an overestimate:**

- The proportion of tourism expenditure assumed to take place in the CAZ is likely to be an overestimate.
- Other expenditure associated with offices and workplaces being open is not currently included due to a lack of data. In comparison, a broader range of spend items are included in VisitBritain's forecasts.
- We exclude CAZ residents from lost worker expenditure, whereas they are likely to be included in VisitBritain's forecasts, meaning a larger group of Londoners has been considered.

Despite these caveats, **the estimated difference between the loss in tourism expenditure and worker expenditure in 2020 is significant at £9.0bn.** Workplace-related expenditure we have missed due to lack of data would need to increase by £59 per worker per day (to £72 per day) for total lost expenditure to be on a par with that lost from tourism.