

## **Terms of reference and conduct of the inquiry**

### **Terms of reference**

1. On 30 April 2013, the OFT sent the following reference to the CC:
  1. In exercise of its duty under section 22(1) of the Enterprise Act 2002 ('the Act') to make a reference to the Competition Commission ('the CC') in relation to a completed merger the Office of Fair Trading ('the OFT') believes that it is or may be the case that –
    - a. a relevant merger situation has been created in that:
      - i. enterprises carried on by or under the control of Cineworld Group plc have ceased to be distinct from enterprises carried on by or under the control of City Screen Limited; and
      - ii. the condition specified in section 23(4) of the Act is satisfied; and
    - b. the creation of that situation has resulted, or may be expected to result in a substantial lessening of competition within any market or markets in the UK for goods or services, including the supply of film services.
  2. Therefore, in exercise of its duty under section 22 of the Act, the OFT hereby refers to the CC, for investigation and report within a period ending on 14 October 2013, on the following questions in accordance with section 35 of the Act—
    - a. whether a relevant merger situation has been created; and
    - b. if so, whether the creation of that situation has resulted, or may be expected to result, in a substantial lessening of competition within any market or markets in the UK for goods and services.

*(signed)* Jackie Holland  
Senior Director, Office of Fair Trading  
30 April 2013

## Interim measures

2. On 1 May 2013, we adopted the initial undertakings accepted by the OFT from Cineworld on 24 December 2012. The notice of adoption of undertakings is published on the CC [website](#).

## Conduct of the inquiry

3. An [invitation to comment](#) on the inquiry was posted on the CC website on 1 May 2013. We also published [biographies](#) of the members of the Inquiry Group conducting the inquiry. The [administrative timetable](#) for the inquiry was published on the CC website on 14 May 2013.
4. We invited a wide range of interested parties to comment on the acquisition. These included Arts Alliance investors; customers of the parties and other cinema exhibitors. Evidence was also obtained through oral hearings with third parties, through telephone contacts and through further written requests. [Non-sensitive versions of submissions](#) and [summaries of hearings](#) can be found on our website.
5. On 20 May 2013, members of the Inquiry Group, accompanied by staff, visited Cineworld and Picturehouse cinemas in Cambridge and Bury St Edmunds to see the operation of the businesses.
6. An [issues statement](#) was posted on our website on 29 May 2013, setting out the areas of concern on which the inquiry would focus.
7. We commissioned GfK NOP Social Research to carry out a survey of customers of both Cineworld and Picturehouse to assist us in understanding the choices made by cinema goers in each of the areas where the parties overlapped, and how these

might be affected by the merger of Cineworld and Picturehouse. The [results of the survey](#) were published on the CC website on 19 July 2013.

8. We received written evidence from Cineworld and Picturehouse and held hearings with both parties on 18 July 2013. A non-sensitive version of [the parties' main submission](#)<sup>1</sup> can be found on the CC website.
9. In the course of our inquiry, we sent to Cineworld, Picturehouse and other parties some working papers and extracts from those papers for comment.
10. A non-confidential version of the provisional findings report has been placed on the CC website.
11. We would like to thank all those who have assisted in our inquiry so far.

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<sup>1</sup> [Parties' initial submission](#).

## Financial background

### Cineworld

1. Table 1 summarizes Cineworld's financial performance over the last five years.

Revenue has increased 20 per cent during this period.

TABLE 1 Cineworld financial performance 2008–2012

	2008	2009*	2010	2011	2012†
Box office (£m)	197.5	230.9	235.8	242.1	252.6
Retail (£m)	77.0	84.4	81.6	81.6	82.8
Other income (£m)	<u>24.4</u>	<u>18.1</u>	<u>25.4</u>	<u>24.3</u>	<u>23.3</u>
Total revenue (£m)	298.9	333.4	342.8	348.0	358.7
EBITDA (£m)	53.0	55.7	59.0	63.3	67.1
EBITDA (%)	17.7	16.7	17.2	18.2	18.7
Operating profit (£m)	38.1	39.6	37.1	42.6	44.2
Profit after tax (£m)	20.2	20.4	21.0	23.9	27.7
Cash generated from operations (£m)	50.0	54.6	50.7	55.3	67.0
Net assets (£m)	136.9	144.5	152.0	160.3	188.6

Source: Cineworld financial statements 2008–2012.

\*53-week period ended 31 December 2009 (all other periods are 52 weeks).

†Picturehouse consolidated from 6 December 2012.

2. Average food and drink 'spend per person' (ie the total sales of food and drink divided by the number of tickets sold) was £[£] in 2012.<sup>1</sup> Popcorn and soft drinks form the core retail products.<sup>2</sup>
3. The largest single element of other income is screen advertising revenue of £[£] million generated by Cineworld's joint venture screen advertising business, Digital Cinema Media Limited (see paragraph 12).<sup>3</sup>

### Picturehouse

4. Table 2 summarizes Picturehouse's financial performance over the last five years. Picturehouse has experienced revenue growth of [£] per cent during this period.

<sup>1</sup> Cineworld response to putback, 10 July 2013.

<sup>2</sup> Cineworld Group plc Annual Report and Accounts 2012.

<sup>3</sup> *ibid.*

TABLE 2 **Picturehouse financial performance 2008–2012**

	2008	2009	2010	2011	2012
Group turnover (£m)*	14.3	15.4	15.9	18.2	[REDACTED]
EBITDA (£m)	1.1	2.0	2.4	2.5	[REDACTED]
EBITDA (%)	7.4	13.2	15.2	13.5	[REDACTED]
Operating profit (£m)	0.7	0.9	1.4	1.1	[REDACTED]
Profit after tax and minority interest (£m)	0.0	0.8	1.4	1.5	[REDACTED]
Cashflow from operating activities (£m)	1.5	1.2	1.5	2.3	[REDACTED]
Net assets (£m)	4.5	4.2	6.8	10.6	[REDACTED]

Source: Picturehouse financial statements 2008–2012.

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\*Excludes City Screen Limited's share of joint venture. If included, the turnover figure for 2011 was £24.3 million.

5. Average food and drink 'spend per person' was £[REDACTED] in 2012.<sup>4</sup> Food and drink is specifically tailored to the local market and may include alcoholic beverages and cooked food.<sup>5</sup>

6. Screen advertising revenue was £[REDACTED] in 2012.

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<sup>4</sup> Joint initial submission, 22 May 2013.

<sup>5</sup> Cineworld Group plc Annual Report and Accounts, 2012.

## Price-concentration analysis

### Introduction and summary

1. Theory of harm 1 states that by removing a cinema competitor in various local areas the merger may lead to a deterioration of price, quality, range or service in those local areas. This appendix presents the results of the price-concentration analysis (PCA) for the provision of cinema exhibition services in Great Britain.<sup>1</sup> The aim of the analysis was to determine the extent to which local competition from rival cinema operators constrains cinema pricing, all else equal.
2. The analysis primarily relied on monthly pricing data provided by Cineworld for the period May 2007 to April 2013.
3. We found some evidence that Cineworld's prices (excluding London) were negatively associated with the number of nearby competitors, ie within a 20-minute drive-time. On average, the size of the increase in prices estimated for a decrease by one fascia was [X] per cent. This effect appeared to be driven primarily by the larger competitors. We did not find evidence that price competition was more intense in local areas where Picturehouse is present.
4. The results did not hold when London was introduced to the analysis. A plausible interpretation is that our framework could not capture the idiosyncrasies of London, eg the cluster of cinemas in the West End which draw customers from across London. We tried to mitigate the issue by using instrumental variables, but with limited success. Our results therefore cannot be used to make inferences on the impact of nearby competitors in London. However, the results including London do

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<sup>1</sup> We dropped cinemas based in the Republic of Ireland, Northern Ireland, Guernsey, Jersey and the Isle of Man due to incomplete data for these regions.

not invalidate our main results (excluding London). We believed that our main framework was appropriately identifying the relationship between prices and concentration outside London.

5. Due to the differences between the two cinema chains, we do not believe that we can use our main results (those based on Cineworld cinemas) to draw any conclusions on the effect of competing fascias on Picturehouse's prices. We ran a similar analysis using data from the Picturehouse cinemas. We found some indicative evidence that Picturehouse's prices (excluding London) were also negatively associated with the number of nearby competitors.
6. The results of this analysis have been taken account of together with other evidence as appropriate in our competitive assessment.

## **Theory and methodology**

### ***Theory***

7. Theory of Harm 1 is that the removal of a competing fascia (Picturehouse) in various local areas may reduce competition and lead to higher prices.<sup>2</sup> If this were the case, we might have expected to find evidence that cinemas are charging higher prices, all else being equal, in local areas where there are fewer competing cinema groups.

### ***Methodology***

8. We used standard econometric regression techniques (ordinary least squares (OLS)). The basic model estimated was of the following form:

$$\text{Adult prices}_{i,t} = \beta_1 + \text{Concentration}_{i,t} * \beta_2 + \text{Controls}_{i,t} * \beta_3 + \varepsilon_{i,t}$$

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<sup>2</sup> In setting out the theory, we use the term price as shorthand for the competitive offering as a whole. Any actual loss of competition may lead to other changes in the offering—for example, reduction in quality or service.

9. We regressed average adult ticket prices for Cineworld on variables indicating the availability of local cinema alternatives and other control variables which may influence the price customers pay. In the following paragraphs we set out the dependent and explanatory variables used in our econometric specification, including the control variables.

### *Dependent variable*

10. We used average adult ticket price<sup>3</sup> as our dependent variable. From the survey, around [X] of respondents listed ticket prices as one of the important factors influencing their choice of cinema.<sup>4</sup> Cineworld also provided average prices for other ticket categories.<sup>5</sup> However, adult tickets made up the largest admissions category accounting for an average of [X] per cent of Cineworld's cinema admissions and [X] per cent of Cineworld's cinema revenue in our sample.<sup>6</sup> We note that cinema revenues also depend on sales of food, drink etc; however, only around a quarter of respondents to the survey said that the price of meals and drinks at the cinema was an important factor in their choice of cinema.<sup>7</sup>
11. Ticket prices as provided by the parties were averaged over a range of time of day and content, eg peak/off-peak, normal content/alternative content, 2D/3D. These averaged prices gave a good idea of the level of prices cinemas were able to charge but fluctuations in averages might have in some cases been influenced by the programming at cinemas, rather than the pricing pressures they faced from local competition.<sup>8</sup>

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<sup>3</sup> Not including Cineworld Unlimited subscribers.

<sup>4</sup> [X] per cent of Cineworld respondents, [X] per cent of Picturehouse respondents.

<sup>5</sup> Child, family, OAP/UB40, student, UNLIMITED and other.

<sup>6</sup> Average of quarterly cinema observations.

<sup>7</sup> GfK NOP Consumer & Retail (2013) 'A research report prepared for The Competition Commission', Figure 17. [X] per cent of Cineworld respondents, [X] per cent of Picturehouse respondents.

<sup>8</sup> As a sensitivity we also ran the regressions using Cineworld's headline prices. For cinemas within a 20-minute drive-time the coefficient was still negative but insignificant.



## Customers' alternatives

12. In order to test the breadth of the relevant local market, the numbers of customer alternatives were calculated using drive-time isochrones around the cinemas. We looked at the number of competing groups with cinemas within these isochrones, rather than the number of cinemas themselves, since the merger effect would be a reduction in cinema fascias, not a reduction in cinema numbers in a local area.<sup>9</sup>
13. We evaluated the appropriate drive-time isochrone to use as part of the analysis. We started with a 20-minute drive-time isochrone in line with previous studies<sup>10</sup> and Cineworld's practice in choosing locations for new developments. We then also considered 10- and 30-minute drive-time isochrones.<sup>11</sup>
14. Our concentration on drive-time rather than travel time by other transportation methods was supported by our survey, with car being the most frequently used transportation method for both cinema groups outside London (average [X] per cent; [X] per cent Cineworld, [X] per cent Picturehouse). There were significant differences between the transportation methods used for cinema attendance inside and outside London, with less than a [X] ([X] per cent) of respondents travelling by car in London and rail/tube and bus being used much more frequently in London than outside London. Hence, isochrones based on drive-times are less likely to reflect accurately customers' choice sets in London.
15. We also considered whether there might be a significant number of customers travelling to the cinema straight from work, rather than from home, which would

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<sup>9</sup> As a sensitivity we looked at the impact of the number of cinemas, in place of the number of fascias. For cinemas within a 20-minute drive-time, the coefficient was negative but insignificant.

<sup>10</sup> For example: *Vue Entertainment Holdings (UK) Ltd and A3 Cinema Limited: a report on the completed acquisition of A3 Cinema Limited by Vue Entertainment Holdings (UK) Ltd*, 2006, [Appendix D: Market definition](#); Beckert, Walter & Mazzarotto, Nicola (2006), *Price-Concentration Analysis in Merger Cases With Differentiated Products*; OFT (2008), *Anticipated acquisition by CineWorld Group plc, through its subsidiary Cine-UK Limited, of the Cinema Business operating at the Hollywood Green Leisure Park, Wood Green*.

<sup>11</sup> The CC survey showed that [X] per cent of Cineworld respondents and [X] per cent of Picturehouse respondents travelled less than 10 minutes to get to the cinema. The comparable figures for less than 20 minutes travel were [X] and [X] per cent respectively, and for less than 30 minutes travel were 84 and 82 per cent respectively.

require a consideration of the number of people working but not living in the locality of cinemas. However, the survey found that most respondents travelled from home when going to the cinema ([X] per cent Cineworld, [X] per cent Picturehouse).

### *Control variables*

16. We used a number of control variables to help control for local characteristics and variations affecting cinemas over time. Both parties consider local demographics when choosing locations for new developments. For instance, [X]. Cineworld internal documents showed consideration [X].
17. As controls for local demographics we used the local unemployment rate, average hourly wage and proportion of the local population aged under 35. We also included dummies for regions at the NUTS2 level, which allowed us to control for a variety of differences in local conditions such as demand and cost differences in different parts of the country.<sup>12</sup> We also included dummies for year and quarter, to control for trends over time and seasonal fluctuations.

### **Data**

18. In the following paragraphs we describe the data used in our analysis.

### ***Pricing data***

19. The parties provided us with monthly average ticket prices at each of their cinemas for different customer groups. Picturehouse's prices were provided net of VAT, which we converted to gross prices to align with Cineworld's data. Quarterly averages were calculated by weighting monthly average prices by monthly ticket sales.

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<sup>12</sup> As a sensitivity, we also ran the regressions with regional controls at the NUTS1 level. For fascias within a 20-minute drive-time, the coefficient remains negative but loses its significance.

## ***Market concentration data***

20. We obtained an initial list of cinema names, owners, postcodes, number of screens and number of seats from the website [www.ukcinemas.org.uk](http://www.ukcinemas.org.uk). This was supplemented with information from Picturehouse, Cineworld and third parties, as well as information collected from third party websites and the websites [www.cinema-theatre.org.uk](http://www.cinema-theatre.org.uk) and [cinematreasures.org](http://cinematreasures.org).
21. There is a wide spectrum of what can constitute a cinema. The spectrum runs between purpose-built permanent cinemas with films showing seven days a week to multipurpose buildings with permanent projection equipment where film exhibition is one of a number of uses of the space<sup>13</sup> to locations where films are shown on an ad hoc basis with no permanent projection equipment.<sup>14</sup> In Great Britain, we identified 670 cinemas whilst Rentrak identifies 850 cinemas as currently in operation, of which 676 recorded revenues in June 2013.
22. We calculated drive-times between each cinema pair based on their postcodes using road speed estimates provided by Higher Mapping Solutions.<sup>15</sup> We cross-checked a sample of these times with their corresponding Google drive-times.
23. In addition, we used Rentrak data on cinema ticket revenues to determine the dates when each cinema was operating, based on the months in which each cinema was recorded as having revenues greater than zero.

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<sup>13</sup> For example, theatres, town halls.

<sup>14</sup> For example, Secret Cinema in London, Reels on Wheels.

<sup>15</sup> [www.highermappingsolutions.com](http://www.highermappingsolutions.com).

### ***Control variables***

24. Local demographics were determined by the unitary district each cinema was located in. Values were available on an annual basis from the Office for National Statistics (ONS), accessed via NOMIS. We used the following data sources:
- (a) annual survey of hours and earnings—workplace analysis, median hourly pay—gross for full-time workers, by local authority: district/unitary; available to 2012;
  - (b) annual population survey, unemployment rate—aged 16 to 64, by local authority: district/unitary; available to 2012; and
  - (c) mid-year population estimates, disaggregated by age category, by local authority: district/unitary; available to 2011.
25. The annual demographic figures were converted to monthly figures using linear interpolation. These monthly figures were then averaged over quarters, based on the months in which cinemas operated, to obtain quarterly values.

### ***Sample used for the econometric analysis***

26. After manipulating and cleaning the data (as described in [Annex 2](#)), we obtained a sample of 1,783 cinema-quarter observations for Cineworld, relating to 77 different Cineworld cinemas. Of these observations, 321 related to the 14 Cineworld cinemas in London.

### **Results**

27. In the following results tables we show the value of the coefficient,  $\beta$ , of the relevant market concentration index (eg fascia counts). Since the dependent variable in our regression equations is in logs,  $100 \times \beta$  indicates the association of the concentration index and the price in percentage terms.

## Results by drive-time

28. When excluding London cinemas from our sample, we found that Cineworld average adult ticket prices were negatively and significantly associated with the fascia counts between 0 and 20 minutes. Coefficients on fascia counts from 0 to 10 minutes, or 0 to 30 minutes, were not found to be statistically significant.<sup>16</sup> Hereafter, we focus on a 20-minute drive-time which is in line with other evidence.

TABLE 1 Regression results—Cineworld average adult prices by drive-time (excluding London)

Market concentration index	Coefficient
Fascia counts (all cinemas)—0–10 minutes	[ $\times$ ]
Fascia counts (all cinemas)—0–20 minutes	[ $\times$ ]**
Fascia counts (all cinemas)—0–30 minutes	[ $\times$ ]

Source: CC analysis.

Note: Significance at [ $\times$ ]. See Table 12 for full regression results.

29. The statistically significant [ $\times$ ] coefficient for fascia counts (all cinemas)—0 to 20 minutes, can be interpreted as predicting that one fewer fascia within a 20-minute drive-time corresponds to an increase in Cineworld prices by [ $\times$ ] per cent.

## Results by cinema size

30. We constructed fascia counts based on small (one to two screens), medium (three to four screens) and large (five or more screens) rival cinemas.<sup>17</sup>

TABLE 2 Regression results—Cineworld average adult prices by cinema sizes (excluding London)

Market concentration index	Coefficient
Fascia counts (all cinemas)—0–20 minutes	[ $\times$ ]**
Fascia counts (medium and large cinemas)—0–20 minutes	[ $\times$ ]*
Fascia counts (large cinemas only)—0–20 minutes	[ $\times$ ]**

Source: CC analysis.

Note: Significance at [ $\times$ ]. See Table 13 for full regression results.

31. It appears that the fascia count of larger cinemas has a greater impact on Cineworld's non-London prices than the fascia count of smaller cinemas. In

<sup>16</sup> One plausible reason why we did not find a significant effect of fascia counts from 0 to 10 minutes is that cinemas may change their prices in view of competition outside the 10-minute drive-time. In that case the price variation is not appropriately accounted for by the fascia counts within the 10-minute drive-time.

<sup>17</sup> Picturehouse, under our classification, operates 2 large cinemas, 11 medium cinemas and 7 small cinemas.

particular, we estimated that in local areas where Cineworld faced one fewer large fascia, Cineworld’s adult prices were on average [3%] per cent higher. The effect was lower when fascia counts were defined using medium and large, and all rival cinemas.

**Results—Picturehouse presence**

32. We found that the presence of a Picturehouse cinema within 20 minutes of a Cineworld cinema did not appear to have a different effect from that of other competitors on Cineworld’s prices. Both the coefficient on the dummy for the presence of Picturehouse and the coefficient on the interaction of this dummy with the fascia count were not found to be statistically significant. One limitation of this analysis was the small number of Cineworld cinemas that had a Picturehouse cinema within a 20-minute drive-time in our sample, ie 9 out of 64 Cineworld cinemas.

TABLE 3    **Regression result—Cineworld average adult prices and Picturehouse’s presence (excluding London)**

<i>Variable</i>	<i>Coefficient</i>
Fascia counts (all cinemas)—0–20 minutes	[3%]**
Dummy for presence of Picturehouse	[3%]
Fascia counts * Dummy for Picturehouse	[3%]

Source: CC analysis.

Note: Significance at [5%]. See Table 14 for full regression results.

**Interpretation of the results**

33. The PCA results provide an indication of the average effect of different numbers of competing fascias across all the local areas analysed. Therefore, they can be used to conclude on the general tendencies for the effect of a reduction in fascia numbers, but cannot predict exactly how a change would affect a particular individual area.

## ***Methodological issues and robustness***

### ***Lack of variation in concentration over time***

34. The econometric specifications available to us were restricted by the lack of changes in market structure over time, with only small numbers of cinemas entering and exiting any local market over our time period (see Tables 11A to C). Hence we had to look at differences both between cinemas and over time to obtain sufficient variation in the variables of interest. In addition, the limited variation did not allow us to test directly the effect of different competitors on Cineworld's prices.

### ***Endogeneity***

35. When including London cinemas in our sample we obtained positive and significant coefficients for fascia counts.

TABLE 4 **Regression results—Cineworld average adult prices by drive-time (including London)**

<i>Market concentration index</i>	<i>Coefficient</i>
Fascia counts (all cinemas)—0–10 minutes	[<img alt="t-statistic symbol" data-bbox="418 461 438 471>]**
Fascia counts (all cinemas)—0–20 minutes	[<img alt="t-statistic symbol" data-bbox="418 473 438 483>]**
Fascia counts (all cinemas)—0–30 minutes	[<img alt="t-statistic symbol" data-bbox="418 485 438 495>]**

Source: CC analysis.

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Note: Significance at [<img alt="t-statistic symbol" data-bbox="258 538 278 548"]]. See Table 12 for full regression results.

36. This counterintuitive result can arise when using price variation across different locations and standard regression analysis (OLS) to identify the effect of competition. For example, unobserved demand characteristics, eg high demand in some London areas like the West End, will attract a substantial number of cinemas. The cinemas in these high-demand areas will also be able to charge higher prices. Therefore, we believe that the relationship between prices and fascia counts might not be a 'causal' one but 'spurious', ie fascia counts and prices depend on a third unobserved factor. We believe that this issue is acute for London, where our local controls do not capture the heterogeneity of its local areas.

37. The above problem of endogeneity can be addressed by either including enough controls for local cost and demand characteristics (not feasible in our study for London areas) and/or by the instrumental variables (IVs) methodology.
38. We therefore used IVs in an attempt to address the issue of endogeneity. IVs should be correlated with the fascia counts, and should not be correlated with the unobserved characteristics that affect cinema prices. The best available instruments to us were local population and local population density (district/unitary level). High population and population density should be positively correlated with market entry, as they should affect market size for cinemas (condition (a)). At the same time, individual consumers' choices should not depend on population and hence, all else being equal (including market concentration), they should not affect cinemas' pricing decisions (condition (b)).

TABLE 5 Correlation between instrumental variables and 20-minute fascia counts

<i>Correlations</i>	<i>Fascia counts</i>	<i>Log (population density)</i>	<i>Log (population)</i>
Fascia counts (all cinemas)—0–20 minutes	1		
Log of population density	0.67	1	
Log of population	0.31	0.34	1

Source: CC analysis.

39. The results from running the IV procedure are shown below. The sign of coefficient on the fascia number for the 'all cinemas' sample changes from positive to negative. This is consistent with the endogeneity hypothesis that there are unobserved demand characteristics that we could control for with standard regression analysis (OLS), ie our standard estimates may be biased upwards.

TABLE 6 Regression results—Cineworld average adult prices—IV

<i>Market concentration index</i>	<i>All cinemas</i>		<i>Excluding London</i>	
	<i>OLS</i>	<i>IV</i>	<i>OLS</i>	<i>IV</i>
Fascia counts (all cinemas)—0–20 minutes	[<math>\infty</math>]**	[<math>\infty</math>]	[<math>\infty</math>]**	[<math>\infty</math>]

Source: CC analysis.

Note: Significance at [<math>\infty</math>]. See Table 15 for full regression results.



40. However, when excluding London the coefficient lost its significance. This may have been a consequence of the instruments not being strongly correlated with the fascia counts, ie ‘weak’ instruments. Indeed, areas outside London may have similar district population and population densities to London, but a significantly lower number of cinemas. Weak instruments can be ill-behaved resulting in invalid coefficients and very large standard errors. We therefore believed that the instruments used did not allow robust inferences on the sign and extent of the bias of the results including London.
41. The parties said that, given that the CC did not obtain sensible results for the Cineworld cinemas in London and the differences between the local competitive conditions in London compared with other parts of the country, the CC’s PCA findings could not be applied to Cineworld’s prices in London.
42. The parties also said that the IV results could not be used to conclude that our estimates were likely to be biased upwards due to endogeneity, since although applying IV to the sample including London decreased the fascia coefficient, applying IV to the sample excluding London increased it—so the two findings were not consistent.
43. The limitations discussed above would not invalidate the inferences we make from the OLS results excluding London, which we do not believe suffer from a significant endogeneity bias.

#### *Impact of Picturehouse’s presence on Cineworld’s prices*

44. The parties noted that we said that the presence of a Picturehouse did not have a significantly different impact from the average impacts reported, yet we also commented that testing for the impact of individual competitors on Cineworld’s prices

was difficult due to limited variation in the data. The parties took this to suggest that our finding on the impact of Picturehouse was not reliable and therefore these results were consistent with Picturehouse having no impact.

45. Our specification implies that, all else being equal (eg the total number of competitors, local demand characteristics, etc), Cineworld cinemas in areas where Picturehouse is present do not face significantly different competitive constraints compared with areas where Picturehouse is not present. This is not the same as Picturehouse having no impact. At the same time we take into account the limitation mentioned in paragraph 32 in the weight we put to this particular piece of analysis.
46. The parties also asserted that the effect of Picturehouse would be much lower than the effects estimated by the CC for the average cinema because (a) they felt that multiplex cinemas would be much closer competitors to Cineworld than independent/ art-house cinemas in the product space, and (b) Picturehouse cinemas were much smaller than the average cinema. Hence the parties said that, based on our results, it was not possible to reject the hypothesis that Picturehouse had zero impact on Cineworld's prices, or otherwise that the upper bound of the impact on price was very small.
47. We ran an additional regression with the number of small, medium and large cinemas separated out. Under this specification the coefficient on the number of large cinemas was significant and negative, whilst the coefficients on the number of small and medium cinemas were negative but insignificant.

TABLE 7 **Regression results—Cineworld average adult prices by cinema sizes (excluding London)**

<i>Market concentration index</i>	<i>Coefficient</i>		
	<i>Small cinemas</i>	<i>Medium cinemas</i>	<i>Large cinemas</i>
Fascia counts (small, medium and large cinemas separately)	[ $\times$ ]	[ $\times$ ]	[ $\times$ ]**

Source: CC analysis.

Note: Significance at [ $\times$ ]. See Table 8 for full regression results.

48. The parties conducted a regression separating out the number of ‘multiplex’ fascias from the number of ‘independent/art-house’ fascias present locally—using Picturehouse’s classification of cinema groups into the two categories. Under this specification, they found a negative significant coefficient for the number of ‘multiplex’ fascias and a positive but insignificant coefficient for the number of ‘independent/art-house’ fascias. They concluded that their results were consistent with Picturehouse having no impact on Cineworld’s prices.

#### *Impact of local competition on Picturehouse prices*

49. The parties asserted that, due to the differences between Cineworld and Picturehouse, the impact of local concentration on prices might not be symmetric across Cineworld and Picturehouse and therefore the PCA findings could not be applied to Picturehouse’s prices.
50. Due to the fact that Picturehouse owns fewer cinemas than Cineworld, the sample size for Picturehouse cinemas is much smaller than Cineworld cinemas, with 305 observations available for cinemas outside of London compared with Cineworld’s 1,458. Hence, any regressions done on just this smaller sample are likely to be less accurate. A regression run on both Cineworld and Picturehouse’s prices together would not have been appropriate, due to, for example, the different progressions in the two groups’ prices over time, which would require too many of the variables in the

regressions to be able to take on different values for the two groups; moving towards effectively running two separate regressions.

51. Due to these issues, we ran only a few exploratory regressions for Picturehouse's prices. In these regressions, NUTS1 rather than NUTS2 regional control dummies were used, due to having an insufficient number of Picturehouse cinemas falling into each of the individual NUTS2 codes, effectively moving most of the way towards a fixed effects model. The specification was therefore less able to account for more disaggregated local differences than the specification used for Cineworld prices.
52. Performing the regression on just Picturehouse's prices (excluding London) using NUTS1 codes gave negative significant coefficients for both 10- and 20-minute fascia counts.

TABLE 8 **Regression results—average adult prices by drive-time (excluding London)—NUTS1 codes**

<i>Market concentration index</i>	<i>Coefficient</i>
Fascia counts (all cinemas)—0–10 minutes	[<math>\beta</math>]***
Fascia counts (all cinemas)—0–20 minutes	[<math>\beta</math>]*
Fascia counts (all cinemas)—0–30 minutes	[<math>\beta</math>]
Number of observations	[<math>\beta</math>]

Source: CC analysis.

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Note: Significance at [ $\beta$ ].

### *Part-time cinemas*

53. To test the sensitivity of our results to the cinemas included we ran a regression with fascia counts calculated excluding the 38 cinemas recorded as operating part-time or also as a theatre by the website [www.ukcinemas.org.uk](http://www.ukcinemas.org.uk). This made no difference to our results. In addition, part-time cinemas will typically only have one screen, so would already be excluded from our results for medium/large and large cinemas only.

## Econometric specification

1. We estimated the equation below with OLS:

$$\text{Adult Prices}_{i,t} = \beta_1 + \text{Concentration}_{i,t} * \beta_2 + L_{i,t} * \beta_3 + D_t * \beta_4 + \varepsilon_{i,t} \quad (\text{A})$$

where  $Y_{i,t}$  is the log of adult average cinema prices,  $MS_{i,t}$  is the number of competitors within a set drive-time,<sup>18</sup>  $L_{i,t}$  is a number of controls for the local economy (eg regional dummies at the NUTS2 level, unemployment, local earnings at the district/unitary level) and  $D_t$  is a set of year and quarter dummies to capture yearly trends and seasonal effects. Subscript  $i$  refers to a cinema and subscript  $t$  to time.

2. Where stated, we also estimated the above using instrumental variables. In particular, we used a two-stage feasible instrumental variable GMM estimator.

## Descriptive statistics

TABLE 1 Descriptive statistics—key characteristics—all cinemas

Variable	Mean	Standard deviation	Minimum value	Maximum value	Observations
Average screen numbers	10.2	3.5	3	20	1,783
Average seat numbers	2,093	821	687	4,968	1,783
Average admissions—adults	[X]	[X]	[X]	[X]	[X]
Average admissions—seniors	[X]	[X]	[X]	[X]	[X]
Average admissions—students	[X]	[X]	[X]	[X]	[X]
Average adult price (£)	[X]	[X]	[X]	[X]	[X]

Source: CC analysis.

TABLE 2 Descriptive statistics—key characteristics—excluding London

Variable	Mean	Standard deviation	Minimum value	Maximum value	Observations
Average screen numbers	10.5	3.3	5	20	1,462
Average seat numbers	2,154	812	819	4,968	1,462
Average admissions—adults	[X]	[X]	[X]	[X]	[X]
Average admissions—seniors	[X]	[X]	[X]	[X]	[X]
Average admissions—students	[X]	[X]	[X]	[X]	[X]
Average adult price (£)	[X]	[X]	[X]	[X]	[X]

Source: CC analysis.

<sup>18</sup> We also ran a regression with the number of competitors grouped piecewise to allow for different effects given the total number of competitors, but did not find a significant result under this specification.

TABLE 3 Descriptive statistics—key characteristics—London

Variable	Mean	Standard deviation	Minimum value	Maximum value	Observations
Average screen numbers	9	3.9	3	15	321
Average seat numbers	1,817	808	687	3,392	321
Average admissions—adults	[⌂]	[⌂]	[⌂]	[⌂]	[⌂]
Average admissions—seniors	[⌂]	[⌂]	[⌂]	[⌂]	[⌂]
Average admissions—students	[⌂]	[⌂]	[⌂]	[⌂]	[⌂]
Average adult price (£)	[⌂]	[⌂]	[⌂]	[⌂]	[⌂]

Source: CC analysis.

TABLE 4 Descriptive statistics—regression variables—all Cineworld cinemas

Variable	Mean	Standard deviation	Minimum value	Maximum value	Observations
Average adult price (£)	[⌂]	[⌂]	[⌂]	[⌂]	[⌂]
Fascia counts within 10-min drive-time—all cinemas	1.4	2.1	0	22	1,783
Fascia counts within 20-min drive-time—all cinemas	4.2	4.8	0	22	1,783
Fascia counts within 20-min drive-time—excluding small cinemas	2.6	2.7	0	13	1,783
Average hourly wage rate (£)	12.73	2.04	8.88	23.13	1,783
Ratio of young to total population (%)	0.29	0.06	0.19	0.53	1,783
Local unemployment rate (%)	8	2.8	1.2	17.9	1,779

Source: CC analysis.

TABLE 5 Descriptive statistics—regression variables—Cineworld cinemas excluding London

Variable	Mean	Standard deviation	Minimum value	Maximum value	Observations
Average adult price (£)	[⌂]	[⌂]	[⌂]	[⌂]	[⌂]
Fascia counts within 10-min drive-time—all cinemas	0.8	1.2	0	6	1,462
Fascia counts within 20-min drive-time—all cinemas	2.5	2.0	0	10	1,462
Fascia counts within 20-min drive-time—excluding small cinemas	1.8	1.6	0	6	1,462
Average hourly wage rate (£)	12.11	1.24	8.88	16.47	1,462
Ratio of young to total population (%)	0.28	0.05	0.19	0.46	1,462
Local unemployment rate (%)	7.9	2.9	1.2	17.9	1,458

Source: CC analysis.

TABLE 6 Descriptive statistics—regression variables—London Cineworld cinemas

Variable	Mean	Standard deviation	Minimum value	Maximum value	Observations
Average adult price (£)	[⌂]	[⌂]	[⌂]	[⌂]	[⌂]
Fascia counts within 10-min drive-time—all cinemas	3.9	3.0	0	10	321
Fascia counts within 20-min drive-time—all cinemas	11.7	6.2	2	22	321
Fascia counts within 20-min drive-time—excluding small cinemas	6.4	3.5	2	13	321
Average hourly wage rate (£)	15.57	2.53	11.77	23.13	321
Ratio of young to total population (%)	0.35	0.06	0.25	0.53	321
Local unemployment rate (%)	8.2	2.0	4.1	14.6	321

Source: CC analysis.

TABLE 7 Descriptive statistics—regression variables—Picturehouse cinemas excluding London

Variable	Mean	Standard deviation	Minimum value	Maximum value	Observations
Average adult price (£)	[ <del>£</del> ]	[ <del>£</del> ]	[ <del>£</del> ]	[ <del>£</del> ]	[ <del>£</del> ]
Fascia counts within 10-min drive-time—all cinemas	1.8	1.2	0	5	305
Fascia counts within 20-min drive-time—all cinemas	2.9	1.4	1	6	305
Fascia counts within 20-min drive-time—excluding small cinemas	2	1.6	0	5	305
Average hourly wage rate (£)	12.92	1.07	10.52	16.4	305
Ratio of young to total population (%)	0.32	0.07	0.18	0.46	305
Local unemployment rate (%)	6.1	2.3	1.5	12.8	305

Source: CC analysis.

TABLE 8 Descriptive statistics—variation between cinemas and over time—all Cineworld cinemas

Variable	Mean	Standard deviation	Minimum value	Maximum value	Observations
Adult prices (£)	[ <del>£</del> ]	[ <del>£</del> ]	[ <del>£</del> ]	[ <del>£</del> ]	[ <del>£</del> ]
Overall	[ <del>£</del> ]	[ <del>£</del> ]	[ <del>£</del> ]	[ <del>£</del> ]	[ <del>£</del> ]
Between	[ <del>£</del> ]	[ <del>£</del> ]	[ <del>£</del> ]	[ <del>£</del> ]	[ <del>£</del> ]
Within	[ <del>£</del> ]	[ <del>£</del> ]	[ <del>£</del> ]	[ <del>£</del> ]	[ <del>£</del> ]
Fascia counts within 20-min drive-time—all	4.2	4.8	0.0	22.0	N = 1,783
Between	4.8	0.0	21.1	n = 77	T-bar = 23.2
Within	0.4	2.0	5.8	T-bar = 23.2	
Fascia counts within 20-min drive-time—excluding small cinemas	2.6	2.7	0.0	13.0	N = 1,783
Between	2.7	0.0	12.8	n = 77	T-bar = 23.2
Within	0.3	0.7	3.5	T-bar = 23.2	

Source: CC analysis.

TABLE 9 Descriptive statistics—variation between cinemas and over time—Cineworld cinemas excluding London

Variable	Mean	Standard deviation	Minimum value	Maximum value	Observations
Adult prices (£)	[ <del>£</del> ]	[ <del>£</del> ]	[ <del>£</del> ]	[ <del>£</del> ]	[ <del>£</del> ]
Overall	[ <del>£</del> ]	[ <del>£</del> ]	[ <del>£</del> ]	[ <del>£</del> ]	[ <del>£</del> ]
Between	[ <del>£</del> ]	[ <del>£</del> ]	[ <del>£</del> ]	[ <del>£</del> ]	[ <del>£</del> ]
Within	[ <del>£</del> ]	[ <del>£</del> ]	[ <del>£</del> ]	[ <del>£</del> ]	[ <del>£</del> ]
Fascia counts within 20-min drive-time—all	2.5	2.0	0.0	10.0	N = 1,462
Between	2.0	0.0	8.7	n = 63	T-bar = 23.2
Within	0.3	0.7	3.8	T-bar = 23.2	
Fascia counts within 20-min drive-time—excluding small cinemas	1.8	1.6	0.0	6.0	N = 1,462
Between	1.6	0.0	5.9	n = 63	T-bar = 23.2
Within	0.2	-0.1	2.5	T-bar = 23.2	

Source: CC analysis.

TABLE 10 Descriptive statistics—variation between cinemas and over time—London Cineworld cinemas

Variable	Mean	Standard deviation	Minimum value	Maximum value	Observations
Adult prices (£)	[ <del>£</del> ]	[ <del>£</del> ]	[ <del>£</del> ]	[ <del>£</del> ]	[ <del>£</del> ]
Overall	[ <del>£</del> ]	[ <del>£</del> ]	[ <del>£</del> ]	[ <del>£</del> ]	[ <del>£</del> ]
Between	[ <del>£</del> ]	[ <del>£</del> ]	[ <del>£</del> ]	[ <del>£</del> ]	[ <del>£</del> ]
Within	[ <del>£</del> ]	[ <del>£</del> ]	[ <del>£</del> ]	[ <del>£</del> ]	[ <del>£</del> ]
Fascia counts within 20-min drive-time—all	11.7	6.2	2.0	22.0	N = 321
Between	6.3	2.4	21.1	n = 14	T-bar = 22.9
Within	0.6	9.6	13.3	T-bar = 22.9	
Fascia counts within 20-min drive-time—excluding small cinemas	6.4	3.5	2.0	13.0	N = 321
Between	3.5	2.0	12.8	n = 14	T-bar = 22.9
Within	0.4	5.0	7.3	T-bar = 22.9	

Source: CC analysis.

## Regression results

TABLE 11 OLS estimation of Cineworld cinemas' prices—by drive-time and including or excluding London

*Dependent variable*

Average adult ticket price

<i>Independent variables</i>	<i>Excluding London cinemas</i>			<i>All cinemas</i>		
	<i>10-min drive-time</i>	<i>20-min drive-time</i>	<i>30-min drive-time</i>	<i>10-min drive-time</i>	<i>20-min drive-time</i>	<i>30-min drive-time</i>
Number of fascias within 10-min drive-time	[X]			[X]		
Number of fascias within 20-min drive-time		[X]			[X]	
Number of fascias within 30-min drive-time			[X]			[X]
Log of percentage of local population under the age of 35	[X]	[X]	[X]	[X]	[X]	[X]
Log of percentage local unemployment	[X]	[X]	[X]	[X]	[X]	[X]
Log of average local hourly wage rate	[X]	[X]	[X]	[X]	[X]	[X]
Dummy NUTS2 region (reference: UKC1):						
UKC2	[X]	[X]	[X]	[X]	[X]	[X]
UKD2	[X]	[X]	[X]	[X]	[X]	[X]
UKD3	[X]	[X]	[X]	[X]	[X]	[X]
UKD5	[X]	[X]	[X]	[X]	[X]	[X]
UKE1	[X]	[X]	[X]	[X]	[X]	[X]
UKE3	[X]	[X]	[X]	[X]	[X]	[X]
UKE4	[X]	[X]	[X]	[X]	[X]	[X]
UKF1	[X]	[X]	[X]	[X]	[X]	[X]
UKF2	[X]	[X]	[X]	[X]	[X]	[X]
UKG1	[X]	[X]	[X]	[X]	[X]	[X]
UKG2	[X]	[X]	[X]	[X]	[X]	[X]
UKG3	[X]	[X]	[X]	[X]	[X]	[X]
UKH1	[X]	[X]	[X]	[X]	[X]	[X]
UKH2	[X]	[X]	[X]	[X]	[X]	[X]
UKH3	[X]	[X]	[X]	[X]	[X]	[X]
UKI1				[X]	[X]	[X]
UKI2				[X]	[X]	[X]
UKJ1	[X]	[X]	[X]	[X]	[X]	[X]
UKJ2	[X]	[X]	[X]	[X]	[X]	[X]
UKJ3	[X]	[X]	[X]	[X]	[X]	[X]
UKJ4	[X]	[X]	[X]	[X]	[X]	[X]
UKK1	[X]	[X]	[X]	[X]	[X]	[X]
UKK2	[X]	[X]	[X]	[X]	[X]	[X]
UKL1	[X]	[X]	[X]	[X]	[X]	[X]
UKL2	[X]	[X]	[X]	[X]	[X]	[X]
UKM1	[X]	[X]	[X]	[X]	[X]	[X]
UKM2	[X]	[X]	[X]	[X]	[X]	[X]
UKM3	[X]	[X]	[X]	[X]	[X]	[X]
Dummy year (reference: 2007):						
2008	[X]	[X]	[X]	[X]	[X]	[X]
2009	[X]	[X]	[X]	[X]	[X]	[X]
2010	[X]	[X]	[X]	[X]	[X]	[X]
2011	[X]	[X]	[X]	[X]	[X]	[X]
2012	[X]	[X]	[X]	[X]	[X]	[X]
2013	[X]	[X]	[X]	[X]	[X]	[X]
Dummy quarter (reference: Q1):						
Q2	[X]	[X]	[X]	[X]	[X]	[X]
Q3	[X]	[X]	[X]	[X]	[X]	[X]
Q4	[X]	[X]	[X]	[X]	[X]	[X]
Constant	[X]	[X]	[X]	[X]	[X]	[X]
R <sup>2</sup> adjusted	[X]	[X]	[X]	[X]	[X]	[X]
Number of observations	[X]	[X]	[X]	[X]	[X]	[X]

Source: CC analysis of Cineworld's pricing data and other data sources.

Note: Significance at [X] standard errors are clustered by cinema to allow for correlation across time.



TABLE 12 OLS estimation of Cineworld cinemas' prices—excluding London, by competing cinema size

*Dependent variable*

Average adult ticket price

<i>Independent variables</i>	<i>All fascias— 20-min drive-time</i>	<i>Medium/large fascias—20- min drive-time</i>	<i>Large fascias—20- min drive-time</i>
Number of fascias within 20-min drive-time	[X]		
Number of medium/large fascias within 20-min drive-time		[X]	
Number of large fascias within 20-min drive-time			[X]
Log of percentage of local population under the age of 35	[X]	[X]	[X]
Log of percentage local unemployment	[X]	[X]	[X]
Log of average local hourly wage rate	[X]	[X]	[X]
Dummy NUTS2 region (reference: UKC1):			
UKC2	[X]	[X]	[X]
UKD2	[X]	[X]	[X]
UKD3	[X]	[X]	[X]
UKD5	[X]	[X]	[X]
UKE1	[X]	[X]	[X]
UKE3	[X]	[X]	[X]
UKE4	[X]	[X]	[X]
UKF1	[X]	[X]	[X]
UKF2	[X]	[X]	[X]
UKG1	[X]	[X]	[X]
UKG2	[X]	[X]	[X]
UKG3	[X]	[X]	[X]
UKH1	[X]	[X]	[X]
UKH2	[X]	[X]	[X]
UKH3	[X]	[X]	[X]
UKJ1	[X]	[X]	[X]
UKJ2	[X]	[X]	[X]
UKJ3	[X]	[X]	[X]
UKJ4	[X]	[X]	[X]
UKK1	[X]	[X]	[X]
UKK2	[X]	[X]	[X]
UKL1	[X]	[X]	[X]
UKL2	[X]	[X]	[X]
UKM1	[X]	[X]	[X]
UKM2	[X]	[X]	[X]
UKM3	[X]	[X]	[X]
Dummy year (reference: 2007):			
2008	[X]	[X]	[X]
2009	[X]	[X]	[X]
2010	[X]	[X]	[X]
2011	[X]	[X]	[X]
2012	[X]	[X]	[X]
2013	[X]	[X]	[X]
Dummy quarter (reference: Q1):			
Q2	[X]	[X]	[X]
Q3	[X]	[X]	[X]
Q4	[X]	[X]	[X]
Constant	[X]	[X]	[X]
R <sup>2</sup> adjusted	[X]	[X]	[X]
Number of observations	[X]	[X]	[X]

Source: CC analysis of Cineworld's pricing data and other data sources.

Note: Significance at [X] standard errors are clustered by cinema to allow for correlation across time.

TABLE 13 OLS estimation of Cineworld cinemas' prices—excluding London, by competing cinema size

*Dependent variable*

Average adult ticket price

<i>Independent variables</i>	<i>All fascias— 20-min drive-time</i>	<i>All fascias—20-min drive-time and Picturehouse indicators</i>
Number of fascias within 20min drive-time	[X]	[X]
Dummy for presence of Picturehouse		[X]
Fascia counts * Dummy for Picturehouse		[X]
Log of percentage of local population under the age of 35	[X]	[X]
Log of percentage local unemployment	[X]	[X]
Log of average local hourly wage rate	[X]	[X]
Dummy NUTS2 region (reference: UKC1):		
UKC2	[X]	[X]
UKD2	[X]	[X]
UKD3	[X]	[X]
UKD5	[X]	[X]
UKE1	[X]	[X]
UKE3	[X]	[X]
UKE4	[X]	[X]
UKF1	[X]	[X]
UKF2	[X]	[X]
UKG1	[X]	[X]
UKG2	[X]	[X]
UKG3	[X]	[X]
UKH1	[X]	[X]
UKH2	[X]	[X]
UKH3	[X]	[X]
UKJ1	[X]	[X]
UKJ2	[X]	[X]
UKJ3	[X]	[X]
UKJ4	[X]	[X]
UKK1	[X]	[X]
UKK2	[X]	[X]
UKL1	[X]	[X]
UKL2	[X]	[X]
UKM1	[X]	[X]
UKM2	[X]	[X]
UKM3	[X]	[X]
Dummy year (reference: 2007):		
2008	[X]	[X]
2009	[X]	[X]
2010	[X]	[X]
2011	[X]	[X]
2012	[X]	[X]
2013	[X]	[X]
Dummy quarter (reference: Q1):		
Q2	[X]	[X]
Q3	[X]	[X]
Q4	[X]	[X]
Constant	[X]	[X]
R <sup>2</sup> adjusted	[X]	[X]
Number of observations	[X]	[X]

Source: CC analysis of Cineworld's pricing data and other data sources.

Note: Significance at [X] standard errors are clustered by cinema to allow for correlation across time.

TABLE 14 OLS and IV estimations of Cineworld cinemas' prices—excluding London

*Dependent variable*

Average adult ticket price

<i>Independent variables</i>	<i>All cinemas</i>		<i>Excluding London</i>	
	OLS	IV	OLS	IV
Number of fascias within 20-min drive-time	[ $\times$ ]	[ $\times$ ]	[ $\times$ ]	[ $\times$ ]
Log of percentage of local population under the age of 35	[ $\times$ ]	[ $\times$ ]	[ $\times$ ]	[ $\times$ ]
Log of percentage local unemployment	[ $\times$ ]	[ $\times$ ]	[ $\times$ ]	[ $\times$ ]
Log of average local hourly wage rate	[ $\times$ ]	[ $\times$ ]	[ $\times$ ]	[ $\times$ ]
Dummy NUTS2 region (reference: UKC1):				
UKC2	[ $\times$ ]		[ $\times$ ]	
UKD2	[ $\times$ ]		[ $\times$ ]	
UKD3	[ $\times$ ]		[ $\times$ ]	
UKD5	[ $\times$ ]		[ $\times$ ]	
UKE1	[ $\times$ ]		[ $\times$ ]	
UKE3	[ $\times$ ]		[ $\times$ ]	
UKE4	[ $\times$ ]		[ $\times$ ]	
UKF1	[ $\times$ ]		[ $\times$ ]	
UKF2	[ $\times$ ]		[ $\times$ ]	
UKG1	[ $\times$ ]		[ $\times$ ]	
UKG2	[ $\times$ ]		[ $\times$ ]	
UKG3	[ $\times$ ]		[ $\times$ ]	
UKH1	[ $\times$ ]		[ $\times$ ]	
UKH2	[ $\times$ ]		[ $\times$ ]	
UKH3	[ $\times$ ]		[ $\times$ ]	
UKI1	[ $\times$ ]		[ $\times$ ]	
UKI2	[ $\times$ ]		[ $\times$ ]	
UKJ1	[ $\times$ ]		[ $\times$ ]	
UKJ2	[ $\times$ ]		[ $\times$ ]	
UKJ3	[ $\times$ ]		[ $\times$ ]	
UKJ4	[ $\times$ ]		[ $\times$ ]	
UKK1	[ $\times$ ]		[ $\times$ ]	
UKK2	[ $\times$ ]		[ $\times$ ]	
UKL1	[ $\times$ ]		[ $\times$ ]	
UKL2	[ $\times$ ]		[ $\times$ ]	
UKM1	[ $\times$ ]		[ $\times$ ]	
UKM2	[ $\times$ ]		[ $\times$ ]	
UKM3	[ $\times$ ]		[ $\times$ ]	
Dummy year (reference: 2007):				
2008	[ $\times$ ]	[ $\times$ ]	[ $\times$ ]	[ $\times$ ]
2009	[ $\times$ ]	[ $\times$ ]	[ $\times$ ]	[ $\times$ ]
2010	[ $\times$ ]	[ $\times$ ]	[ $\times$ ]	[ $\times$ ]
2011	[ $\times$ ]	[ $\times$ ]	[ $\times$ ]	[ $\times$ ]
2012	[ $\times$ ]	[ $\times$ ]	[ $\times$ ]	[ $\times$ ]
2013	[ $\times$ ]	[ $\times$ ]	[ $\times$ ]	[ $\times$ ]
Dummy quarter (reference: Q1):				
Q2	[ $\times$ ]	[ $\times$ ]	[ $\times$ ]	[ $\times$ ]
Q3	[ $\times$ ]	[ $\times$ ]	[ $\times$ ]	[ $\times$ ]
Q4	[ $\times$ ]	[ $\times$ ]	[ $\times$ ]	[ $\times$ ]
Constant	[ $\times$ ]		[ $\times$ ]	
R <sup>2</sup> adjusted	[ $\times$ ]	[ $\times$ ]	[ $\times$ ]	[ $\times$ ]
Number of observations	[ $\times$ ]	[ $\times$ ]	[ $\times$ ]	[ $\times$ ]

Source: CC analysis of Cineworld's pricing data and other data sources.

Note: Significance at [ $\times$ ] standard errors are clustered by cinema to allow for correlation across time.

### **Data cleaning**

1. We dropped cinemas based in Northern Ireland, Guernsey, Jersey and the Isle of Man due to incomplete data for these regions.
2. Where cinemas from the same group had the same postcode (eg Odeon and Odeon (ABC) in Bournemouth, Cineworld Cheltenham and Cheltenham TSR) or shared programming/websites (eg The Little Theatre/Little @ Komedia in Bath and Odeon Richmond/Richmond Studio), they were treated as one cinema for the purposes of this analysis—with screen and seat numbers aggregated accordingly.
3. Missing demographics values were calculated by linear interpolation of the surrounding figures. Values for the year 2013 (earnings, unemployment rate, population) and 2012 (population) were constructed by linear extrapolation of the latest figures available. The annual demographics figures were then converted to monthly figures by linear interpolation between years.

### **Cleaning monthly figures**

4. Where cinemas opened during our sample period, we dropped the observation relating to their first month of operation.
5. We dropped months where a significant increase or decrease in price or ticket numbers was observed compared with the month before. Due to the natural fluctuations in admissions over time that are seen by cinemas as films of varying popularity are released, a significant change in admission numbers was defined as greater than 2.5 times the standard deviation away from the mean change in admissions over all cinemas in a particular month to the next. A similar methodology was employed for prices, with monthly observations dropped where prices changed by more than 3.5

times the standard deviation away from the mean price change that occurred in a particular month to the next.

### **Aggregation of data to quarterly figures**

6. We dropped quarters where we had observations for a cinema for less than two months in that quarter. This means we dropped all data for 2013 Q2, since we only had data for April in this quarter, and if a cinema opened in the third month in a quarter, ie March, June, September or December during our sample period, we dropped the observation related to the first quarter that these cinemas were open. Also, if large movements in price or tickets sold had caused observations for two months in a quarter to be dropped during the cleaning of monthly figures, these quarters were also dropped.
7. We dropped a cinema from the sample set if we had fewer than five quarterly observations for that cinema, ie the cinema operated for only a year or less during our sample period (eg this dropped Picturehouse Brighton-Dukes @ Komedia, and Cineworld Aldershot from our sample).
8. Gross quarterly average prices were derived by dividing the total adult ticket revenues over a quarter by the total adult admissions over the quarter.

## **Customer survey**

### **Overview**

1. This appendix sets out the methodology used for the CC Survey carried out as part of the Cineworld/Picturehouse merger inquiry. It compares the methodology and results of the CC Survey with the methodology and results of the first survey carried out by the parties, during the OFT's phase of the inquiry (referred to in this appendix as the Parties' Survey<sup>1</sup>).

### **CC Survey methodology**

2. The CC Survey covers customers of Picturehouse and Cineworld in the overlap areas of interest. It comprises two elements: an online survey and a telephone survey

#### *Online survey*

3. The main CC Survey was carried out online. Invitations were sent to all Cineworld and Picturehouse customers who appeared on the mailing lists of the merging parties' cinemas in local areas of interest. The survey was carried out between 14 June and 24 June 2013 and invitations were sent to around 174,000 Cineworld customers and 196,000 Picturehouse customers. Over 21,800 responses were received, a response rate of around 6 per cent. A single reminder was sent to all those who did not respond within the first few days.
4. The diversion questions in this survey asked respondents about their last visit to the cinema on whose mailing list they appeared

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<sup>1</sup> Online survey of Picturehouse customers carried out by the parties' between 31 January and 4 February 2013

- (a) For those who paid for their ticket (as opposed to members of the parties' subscription schemes), questions were asked about:
- (i) the action they would have taken if prices had risen by a small amount (30p to 75p depending on the ticket purchased and whether in London or outside—this represents approximately a 5 per cent price increase). Options offered were: not go to the cinema at all; go to the same cinema; go to another cinema; don't know. Those that said 'Go to another cinema' were then asked to choose which cinema from a list of 12 local alternatives, or to state another Cineworld cinema, other Picturehouse cinema or other cinema; and
  - (ii) the action they would have taken if they had known that all (Cineworld/ Picturehouse<sup>2</sup>) cinemas had been closed for refurbishment for a year.
- (b) For those who had not paid for their tickets on the last visit and who were a member of the cinema's subscription scheme:
- (i) the action they would have taken if the subscription price had risen by 5 per cent (still subscribed to same scheme; subscribed to another cinema membership scheme; not taken out a subscription; don't know). Those who said they would join another scheme were asked which scheme; and
  - (ii) the action they would have taken if they had known that all (Cineworld/ Picturehouse) cinemas had been closed for a year at the time they took out their subscription.

### *Telephone survey*

5. A telephone survey using the same questionnaire was also carried out in Bury St. Edmunds and Brighton. Only people who would not have appeared on the electronic mailing lists were eligible for interview. The purpose of this part of the survey was to

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<sup>2</sup> Cineworld for those who were selected from Cineworld mailing lists; Picturehouse for those from Picturehouse mailing lists.

test whether the diversion responses of customers not on mailing lists would be different from those who are.

6. As with all survey-based methods, there are a number of caveats that need to be borne in mind when considering the results of surveys:

(a) The survey questions on diversion are hypothetical and customers may have responded differently from what their actual behaviour would have been in practice.

(b) Only customers on mailing lists were contacted for the online survey, so there is potential for bias linked to coverage. The telephone survey was designed to test for this coverage bias in the two areas of Bury St Edmunds and Brighton.

Achieved sample sizes for the telephone survey were small, but it provides some evidence that diversion ratios obtained from the online survey are valid (because they are broadly the same in both surveys), albeit that the price sensitivity of Cineworld mailing list customers may be higher than their average customer.

(c) The response rate to the survey overall was 6 per cent, varying by individual cinema between 4 and 11 per cent. This is low relative to most surveys commissioned by the CC and gives rise to potential non-response bias.<sup>3</sup>

(d) Responses to diversion questions may have been affected by the diversion questions offering respondents a prompted list of the 12 nearest cinemas (by drive-time).<sup>4</sup> They were also given an option to identify another cinema, but nonetheless, the list may have influenced the way people responded. The effect of this is almost certainly negligible outside London where the lists of cinemas offered cover all cinemas within a fairly large geographical area. However, travel patterns are different in London, and there is a much higher concentration of cinemas than

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<sup>3</sup> Non-response bias occurs when people who responded to the survey are not representative of the sample as a whole, ie where the pattern of responses from those who answered the survey is different from that which would have been obtained from those who did not.

<sup>4</sup> The ordering of the 12 nearest cinemas was randomized across respondents.



in other parts of the country; the prompted list is therefore likely to cover only part of the choice set of cinemas, albeit the closest ones.

7. In general terms the survey is considered to be high quality:
  - (a) Sample sizes were particularly large, with a total of 21,797 responses to the online survey. The number of responses per cinema ranges between 145 and 2,285, providing a good sample base for analysis at the level of individual cinema.
  - (b) The diversion questions asked were straightforward and easier for respondents to answer than in most comparable surveys. This should lead to more reliable results.
8. This high quality is evidenced by the following:
  - (a) Diversion ratios derived from the price diversion questions are similar to those derived from the forced diversion questions. This is particularly helpful in this case where a number of issues arise from the apparent price inelasticity of demand among Picturehouse customers.
  - (b) The diversion ratios appeared to be a good discriminator of cinemas, with some markedly different results. For example, diversion ratios are much higher for Picturehouse Clapham than for the other two London Picturehouse cinemas in the survey. In this respect, the Picturehouse Stratford and Picturehouse Greenwich cinemas provide useful comparators. This is because potential sources of bias, for example those arising from the hypothetical nature of the diversion questions, are the same or similar for all three cinemas.

### **Survey quality—price sensitivity**

9. As described earlier, the survey asked a set of diversion questions based on a small increase in prices. The purpose of these questions was to identify the diversion

behaviour of marginal customers. However, these questions also give some insight into the price sensitivity of customers. In this respect, the survey results are different between Cineworld and Picturehouse customers.

10. The percentage of customers who said that they would not have gone to see the film at the cinema if prices had risen by the stipulated amount (approximately 5 per cent) ranged between [20–30] and [40–50] per cent among Cineworld cinemas and between [0–5] and [10–20] per cent among Picturehouse cinemas. This suggests that mailing list and member customers (the survey sampling frame) of Cineworld cinemas are considerably more price sensitive than their Picturehouse counterparts.
11. These results can be used more formally to estimate: a) price elasticities and, b) under certain assumptions, including cinemas setting prices to maximize short-term profits, implied gross margins for each cinema for which we have results. When this is done the implied margins are, for all surveyed Cineworld cinemas, lower than the parties' estimates of gross margins based on their accounting data. The opposite is true for all surveyed Picturehouse cinemas: implied margins are generally higher than the parties' estimates of gross profit margins.
12. These results may, at face value, cast doubt on the quality of the survey, but the following points should be borne in mind when interpreting these results:
  - (a) We would expect the hypothetical nature of the price increase in the price diversion question to make it difficult for some respondents to know the level of price increase that would trigger switching.
  - (b) The results of the telephone, which only included customers who are not on mailing or membership lists for the cinemas, suggests that these customers, on average, display a different response to price than those on mailing and membership lists. Among respondents to the telephone survey who were

customers of Cineworld Bury St Edmunds and Cineworld Brighton, a much smaller proportion were sensitive to the price rise. A possible explanation for this is that customers who register with Cineworld are able to take advantage of a 10 per cent discount when booking online and are therefore, on average, more price aware and price sensitive. Conversely, the percentage of respondents saying that they would divert as a result of a price increase is higher among the Picturehouse Brighton customers responding to the telephone survey than those from the online survey of mailing list customers/members. There is no difference between the two types of customer respondents from Picturehouse Bury St Edmunds.

- (c) The main purpose of the price diversion question is to identify marginal customers. The relationship between the size of the price increment and the number of customers diverting is not central to this and does not directly affect the calculation of diversion ratios.

### **Diversion ratio calculation**

13. As mentioned above, the CC Survey has been designed to minimize issues about the diversion questions by framing questions around respondents' last visit to the cinema of interest, asking both price rise and closure diversion questions and asking different diversion questions of those who have free admission on the day of visit under a subscription scheme.
14. All responses are weighted by the number of visits in the last six months to the cinema on whose mailing list the respondent appeared. For example, a respondent from the Picturehouse Cambridge mailing list who had visited that cinema four times in the last six months would receive four times the weight of a respondent from the same mailing list who had only visited the cinema once.

15. The calculation of the price diversion ratio for those who paid for a ticket on the day of visit is as follows, based on questions D2 and D3 of the survey.<sup>5</sup> In response to a 5 per cent price rise, respondents provided one of following responses:
- (a) Still have seen the film at the same cinema.
  - (b) Chosen not to go to the cinema at all.
  - (c) Don't know (these are ignored in the calculations, effectively redistributing answers among (a), (b) and (d)).
  - (d) Gone to another cinema to see this or another film, subdivided into:
    - (i) same fascia cinema;
    - (ii) merging fascia cinema;
    - (iii) another third party cinema; and
    - (iv) don't know which cinema.
16. The first step in the price diversion calculation is to apportion those who did not know which cinema they would have diverted to, (d)(iv), across the categories of those who did—(d)(i), (d)(ii) and (d)(iii). The price diversion ratio is then calculated as diversion to merging fascia divided by all lost visits, ie  $(d)(ii) / ((b) + (d)(ii) + (d)(iii))$ , the proportion of lost visits that are recovered post-merger.
17. The forced diversion ratio is calculated using the same principles from questions D6 and D7 of the survey. The only difference is that respondents were not offered options (a) and (d)(i).
18. Diversion ratios were not calculated separately for respondents who have free admission on the day of visit under a subscription scheme. The only usable results from this part of the survey are from those respondents who stated that they would switch their membership to another cinema chain's scheme. These were used to

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<sup>5</sup> [www.competition-commission.org.uk/assets/competitioncommission/docs/2013/cineworld-city-screen/report.pdf](http://www.competition-commission.org.uk/assets/competitioncommission/docs/2013/cineworld-city-screen/report.pdf).

supplement the main diversion ratio and we have labelled the results the ‘augmented’ diversion ratios. The numbers of respondents switching to another membership are low, so the impact on ratios is small.

19. Table 1 sets out the diversion ratios for both the price diversion and forced diversion questions. It can be seen that only a low percentage of Picturehouse customers would divert in response to a price rise of around 5 per cent.

TABLE 1 **Diversion summary**

	% diverting	Price diversion		Forced diversion	
		Diversion ratio	Augmented diversion ratio*	Diversion ratio	Augmented diversion ratio*
Cineworld Aberdeen—Union Square	[X]	[X]	[X]	[X]	[X]
Cineworld Aberdeen—Queens Link	[X]	[X]	[X]	[X]	[X]
Picturehouse Aberdeen	[X]	†	†	[X]	[X]
Cineworld Brighton	[X]	[X]	[X]	[X]	[X]
Picturehouse Brighton—Duke of York's	[X]	†	†	[X]	[X]
Picturehouse Brighton—Duke @ Komedia	[X]	†	†	[X]	[X]
Cineworld Bury St Edmunds	[X]	[X]	[X]	[X]	[X]
Picturehouse Bury St Edmunds	[X]	†	†	[X]	[X]
Cineworld Edinburgh	[X]	[X]	[X]	[X]	[X]
Picturehouse Edinburgh	[X]	†	†	[X]	[X]
Cineworld Cambridge	[X]	[X]	[X]	[X]	[X]
Picturehouse Cambridge	[X]	[X]	[X]	[X]	[X]
Cineworld Southampton	[X]	†	†	[X]	[X]
Picturehouse Southampton	[X]	†	†	[X]	[X]
Cineworld West India Quay	[X]	[X]	[X]	[X]	[X]
Cineworld Greenwich—The O2	[X]	[X]	[X]	[X]	[X]
Cineworld Bexleyheath	[X]	[X]	[X]	[X]	[X]
Picturehouse Greenwich	[X]	[X]	[X]	[X]	[X]
Picturehouse Stratford	[X]	†	†	[X]	[X]
Cineworld Chelsea	[X]	†	†	[X]	[X]
Cineworld Fulham Road	[X]	†	†	[X]	[X]
Cineworld Wandsworth	[X]	[X]	[X]	[X]	[X]
Picturehouse Clapham	[X]	[X]	[X]	[X]	[X]

†Sample of customers diverting too small for results to be shown.

\*Augmented with sample of subscribers for whom diversion of their subscription to other subscriptions is known.

## CC Survey compared with Parties' Survey

20. During the OFT phase the parties carried out two surveys. The first included diversion questions and is reported upon here. The second survey, which is not discussed in this appendix, primarily covered customers' views on various aspects of the cinemas they visit. As the Parties' Survey covered only Picturehouse customers who are on electronic mailing lists, comparisons provided in this appendix only cover this population.

## Methodology—Parties' Survey

21. The Parties' Survey was carried out online and was sent to the full Picturehouse mailing list, which comprised over [X] individuals. Approximately [X] per cent of these individuals are Picturehouse members.
22. The survey was carried out between 31 January and 4 February 2013. Just over 35,000 responses were received, implying a response rate of around [X] per cent. No reminders were issued.
23. For diversion purposes, respondents were asked:
  - (a) how many times they visited the Picturehouse cinema of interest;
  - (b) the action they would have taken if that Picturehouse had been closed for the past six months (not go to cinema; attend different cinema but less often; attend a different cinema around the same number of times; other);
  - (c) for those who would attend less often, how many times they would attend a different cinema; and
  - (d) for those who would go to another cinema, which cinema(s) they would attend—selected from a list of main fascias (Apollo; Cineworld; Curzon; Empire; Everyman; Odeon; Showcase; Vue; other) .

## Issues—Parties' Survey

24. The CC has a number of concerns about the way the Parties' Survey was carried out and the effect that these will have had on the analysis of diversion ratios. These include:
  - (a) The approach taken of:
    - (i) asking about *all* visits in the past *six months*, which potentially leads to heavy recall penalties;

- (ii) asking respondents to state the *number* of visits they would have made to other cinemas in the event of closure, which will be difficult for respondents to estimate (56 per cent of respondents said ‘attend a different cinema but less often’);
- (iii) the assumptions made when respondents say they will divert to multiple fascias, ie that the spread will be uniform;
- (iv) providing a list of fascia names to divert to, rather than specific cinemas which are available in the locality—it is possible that people will choose well known fascias without knowing whether or not they operate locally.  
Cineworld is also a less well-known brand than Vue or Odeon and diversion to Cineworld cinemas might therefore be underreported; and
- (v) members who pay £35 per year are asked the same diversion questions as those who pay per visit—this is not felt appropriate as the decision they would make relates to their subscription decision rather than to specific cinema visits.

## **CC Survey**

25. As mentioned above, the CC Survey has been designed to minimize issues such as those set out above relating to the Parties’ Survey:

- (a) diversion, and other, questions are framed around their last visit to the cinema of interest—this should aid accurate recall and lead to a relatively simple diversion decision;
- (b) diversion on both price rise and closure are asked;
- (c) different diversion questions are asked of those who have free admission under a subscription scheme; and
- (d) tailored lists of up to 12 cinemas within a reasonable drive-time are presented as options in the diversion questions.

## Results

26. Given the above issues with the Parties' Survey, we consider that the results of the CC Survey provide a more accurate estimate of diversion ratios than the Parties' Survey.
27. Having said that, it is worthwhile to compare the results of the Parties' Survey with the CC Survey unadjusted results for the closure diversion questions. For this, we are just reporting the results of those CC Survey respondents who paid for their last visit to the cinema (rather than receiving 'free' entry under their subscription). This offers the closest to a like-for-like comparison. The OFT Decision document sets out the diversion ratios<sup>6</sup> to the other merging party based on answers to the closure diversion question.
28. Table 2 summarizes the diversion ratios for Picturehouse cinemas in the local areas of interest. The closure diversion ratio from the Parties' Survey is shown together with the closure diversion ratio from the CC Survey, extracted from weighted unadjusted tabulations provided by GfK. As can be seen, the CC Survey tends to show higher rates of diversion to the relevant cinemas of the other merger party than the Parties' Survey.

TABLE 2 **Diversion from Picturehouse to Cineworld—Parties' Survey versus CC Survey**

Area	<i>Closure diversion, per cent</i>	
	<i>Parties' Survey diversion to Cineworld—OFT calculations</i>	<i>CC Survey diversion to Cineworld</i>
Aberdeen	[30–40]	[40–50]
Bury St Edmunds	[20–30]	[50–60]
Cambridge	[20–30]	[30–40]
Brighton	[10–20]	[10–20]
Edinburgh	[10–20]	[10–20]
Southampton	[10–20]	[20–30]
Clapham	[10–20]	[30–40]
Greenwich	[0–10]	[10–20]
London—Stratford	[0–10]	[10–20]

Source: Parties' Survey and CC Survey.

<sup>6</sup> Calculated as the number of visits that divert to Cineworld, divided by the total number of visits.



## Likelihood of entry or expansion

### Introduction

1. This appendix considers the likelihood of entry into or expansion in cinema exhibition services. The consideration of entry and expansion is relevant to the competitive assessment of the transaction because entry and expansion that is sufficient in scope, timely and likely to occur may reduce or prevent an SLC.<sup>1</sup> Our approach in this inquiry to assessing entry or expansion is consistent with that which is set out in our Merger Assessment Guidelines (the Guidelines).<sup>2</sup>
2. In this appendix, we consider entry and expansion as follows:
  - (a) We first consider the history of entry into this market.
  - (b) We then consider the barriers to setting up a single cinema, ie the cost faced by an incumbent expanding an existing cinema or setting up a new cinema in a new location.
  - (c) We then consider the additional barriers faced by an entirely new entrant with no existing presence.
  - (d) Finally we consider, on a general level, whether either entry or expansion would be timely, likely or sufficient to act as an effective competitive constraint on the merged entity; this is considered in more detail in our analysis of the competitive effects of the transaction in local areas (set out in Appendix G).
3. New entry into a local market can occur in three ways: the acquisition of an existing cinema, the conversion of a building to use as a cinema and the building of a new cinema. The only type of new entry with which we are concerned for this inquiry is the opening of new sites (either by building a new cinema or converting an existing

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<sup>1</sup> *Merger Assessment Guidelines*, CC2, [paragraph 5.8.3](#).

<sup>2</sup> CC2, [paragraphs 5.8.1–5.8.15](#).

building for use as a cinema), creating a new competitive constraint in the areas under consideration.

## **Evidence of past and future entry/expansion**

### ***Past entry—multiplex cinemas***

4. Over the past ten years, an average of seven new multiplex cinemas have opened each year, as shown in Table 1.

TABLE 1 **Multiplex openings 2003 to 2012**

	<i>Sites</i>
2003	8
2004	6
2005	5
2006	8
2007	9
2008	12
2009	8
2010	5
2011	7
2012	4

Source: Dodona Research, *Cinemagoing* 22, March 2013.

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5. Cineworld told us that almost all new multiplex cinema openings over the past five years had been completed by Cineworld, Odeon or Vue. There had been no new entrant to the UK multiplex market since Empire Cinemas was formed during 2005 from the divested cinemas of the Odeon/UCI and Cineworld/UGC mergers.
6. Cineworld and Vue told us that they had not closed any cinemas in the UK in the last five years.

### ***Past entry—non-multiplex cinemas***

7. In 2012, 45 new non-multiplex cinemas opened (adding 56 screens), although there were 24 cinema closures (loss of 24 screens).<sup>3</sup>
8. Picturehouse has opened three new cinemas since 2008: Bury St Edmunds, Hackney and Duke's @ Komedia in Brighton. In addition, Picturehouse provided the following examples of non-multiplex cinemas which have opened in the past four years: The Aubin (2010), The Corby Cube (2011), The Regal Eversham (2011), Everyman Maida Vale (2012), Mareel (2012), Everyman Leeds (2013), The Birks Aberfeldy (2013) and The Regal Melton (2013).

### ***Plans of existing cinema exhibitors***

9. Cineworld told us that in its strategic plan it had committed to building [X] new cinemas over the next five years, of which [X]. Cineworld told us that it was constantly considering new sites for expansion. Vue told us that it was planning on opening four new cinemas in 2013 and a further three to four new cinemas were planned to open in 2014. Odeon told us that it was planning to open [X] new cinemas a year over the next three to five years. Showcase told us that it was looking to expand further in the UK and was in negotiations with respect to a variety of potential new locations. It said that most new cinemas were part of retail developments and Showcase would be bidding in competition with other cinema chains for the opportunity to operate the cinema.
10. Picturehouse told us that its current (post-merger) expansion plans were focused on [X] new sites. Curzon opened a new cinema in Stafford in May 2013 and plans to open two more new cinemas later in 2013.

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<sup>3</sup> BFI Statistical Yearbook, 2013.

11. Vue told us that expansion into new locations by existing cinema operators was attractive as it allowed economies of scale in, for example, utility costs and overheads.

### ***Our assessment of past and future entry/expansion***

12. There is evidence of past expansion into new locations by the three major operators of multiplexes.
13. In addition, in terms of non-multiplex cinemas, there is evidence of both entry by new independent cinemas and expansion by existing non-multiplex cinema chains such as Picturehouse and Everyman.
14. We found that a number of new cinema openings are planned by existing cinema exhibitors, both multiplex and non-multiplex.

### **Barriers to setting up a new cinema**

#### ***Commercial incentive***

15. UK cinema admissions have remained relatively steady since 2002. However, international comparisons suggest that there may be opportunities for new cinemas. Screen density in the UK in 2012 was 6.1 per 100,000 people (2011: 6.1). This level of access to screens falls short of the numbers in other major film territories (although we recognize that there are differences in the population densities of these countries): USA (12.6), France (9.0), Australia (8.7), Spain (8.5) and Italy (6.4); Germany's screen density is slightly lower (5.6) than the UK's.<sup>4</sup>

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<sup>4</sup> BFI Statistical Yearbook, 2013.

16. The BFI told us that although the UK, in comparison with other countries, was not significantly underscreened, there were considered to be clear pockets where there was opportunity for expansion.
17. Cineworld told us that it assessed the location of potential new sites by looking at [✂].
18. Picturehouse told us that its development plans were informed by socio-demographic data and comparison goods spend for the catchment and the existence of competitor cinemas. Similarly, Curzon, another non-multiplex cinema operator, told us that it considered demographics and existing competition when assessing locations for new sites.

### ***Availability of sites***

19. If there is deemed to be a commercial incentive to open a new cinema, a new entrant would then look to buy or rent a suitable site.
20. Operators of multiplexes generally seek a site on which to build a new cinema, often as part of a retail or leisure development. Showcase told us that planning guidance could restrict opportunities for out-of-town developments, and Odeon said that concern over the continuing decline of high streets might make it more difficult to gain planning permission for these types of retail developments in future. Odeon said that it had already seen evidence of a trend away from the opening of large multiplexes in retail parks.
21. Cineworld told us that the number of available sites for new multiplexes had been affected by the recession which had resulted in fewer retail or leisure developments. Market research shows that in 2012 fewer multiplex screens opened than in any year

since 1987. However, at least twice as many sites are scheduled to open in 2013, and current trends in retail are probably positive.<sup>5</sup>

22. Cineworld told us that it was likely to be more difficult for a new entrant to the UK seeking to open a multiplex to secure premises with a new retail or leisure development as such sites tended to require large, established anchor tenants. Vue told us that new entrants might find it difficult to persuade developers that they were commercially credible.
23. Non-multiplex cinema exhibitors may seek an existing building which can be converted for use as a cinema or a site for a new build, for example [X].
24. Where an existing building is being converted for use as a cinema, it must have a ceiling height of at least 4.5 metres in order to accommodate a screen. Odeon told us that entry by reconfiguring an existing building for use as a cinema was unlikely given the costs and difficulties in finding a building that met the height and size requirements, although Odeon noted that the advent of digital projectors, which enabled a more efficient use of the projection booth space, would possibly make this form of entry easier.
25. Picturehouse told us that it is relatively easy to establish a non-multiplex cinema in existing buildings such as theatres, town halls or lecture halls by adding projection facilities at a cost in the region of £[X] to £[X].
26. Picturehouse told us that it was particularly difficult to find suitable premises with affordable rents in locations where it was competing with residential developers.

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<sup>5</sup> *Cinemagoing* 22, Dodona Research, March 2013.

Curzon told us that, in general, cinemas paid lower rents than residential or retail tenants.

### ***Lead times***

27. We found that the lead times for planning and building a new cinema were long. Vue told us that the average time to plan and build a new multiplex was typically in the range of two to three years.
28. It can also take a significant amount of time to convert an existing building for use as a cinema. Picturehouse gave the example of Hackney Picturehouse (a four-screen cinema) which took approximately [X] years from the start of negotiations to the new cinema opening in 2011. Picturehouse told us that in some cases entry might take less than two years, for example the Duke's @ Komedia Picturehouse cinema in Brighton opened 11 months after the commencement of lease negotiations.

### ***Regulatory barriers***

29. Planning permission from the local authorities will be required to build a new cinema and, in general, to convert an existing building for use as a cinema.
30. Picturehouse told us that obtaining planning consent generally took three to six months, although this process could take significantly longer, particularly where the cinema would be housed in an existing building that was listed.
31. Odeon told us that obtaining planning permission was a long process, comprising several stages, including the analysis and assessment of the plans by the local planning authority and local councillors and consultation with interested parties. The requirement to obtain planning permission could result in long lead times between an internal decision to open a new cinema and the cinema becoming operational.

Particularly contentious planning applications could take a number of years to gain approval and incurred significant costs.

32. Odeon told us that when a new multiplex was part of a new retail development, the burden of obtaining planning permission was transferred to the developer.
33. Cineworld told us that when reviewing planning applications, local authorities would consider the reputation of the cinema operator. An established operator with a good track record of successfully operating multiplexes was likely to be favoured above a small or a new operator.
34. Vue told us that the cinema exhibition industry was subject to numerous and varied regulations, including cinema licensing (under the Cinemas Act 1984), health and safety law, alcohol licensing laws (if the exhibitor sold alcohol) and the Equality and Disability Access Regulations. Cineworld told us that licensing and health and safety requirements were common to those applied to other leisure business with some specific additional regulation. A new cinema exhibitor would need to acquaint itself with local licensing policies which were freely available online.

### ***Capital requirements***

35. The capital requirements of a new cinema include:
  - (a) the cost of buying the freehold or leasehold of the site;
  - (b) the cost of developing and fitting out the cinema—Curzon told us that the main costs of fitting out a new cinema were the screen, digital projector and seats at a cost of approximately £0.5 million for a 150-seat screen;
  - (c) the cost of acquiring initial stock for a retail offering (if applicable); and
  - (d) working capital requirements.



36. Cineworld told us that the capital costs of build and fit-out of a new multiplex could be substantial (up to £4 million). Odeon said that the cost of building a new seven-screen cinema would be in the region of £3.5–£4 million, dependent on the number of seats and the square metreage and a larger cinema, such as Odeon's [REDACTED].
37. Picturehouse told us that the total cost of a new non-multiplex cinema ranged from £[REDACTED] million to £[REDACTED] million.
38. Odeon said that the cost of entry to a cinema exhibitor could be reduced if entry was sponsored by the local authority or if the new cinema was part of a retail development. Where a new multiplex was part of a new retail development, the developer would sponsor entry by partially or fully bearing the construction costs.
39. Odeon told us that entry might also be sponsored or supported by local authorities. Local authority sponsorship typically occurred when the authority wished to have a cinema located within a wider regeneration scheme. For example, in 2015, Odeon would open a five-screen cinema in [REDACTED]. The majority of construction costs will be borne by [REDACTED], which will then lease the site to Odeon at a commercial rate.
40. The BFI also told us that it was aware of examples where local authorities had provided funding for new cinemas and [REDACTED].
41. In addition to contributions towards the capital requirements associated with opening a new cinema, cinemas may also receive revenue support, for example grant-in-aid awarded to eight cinemas by the BFI, funding provided by Europa cinemas based on

the proportion of non-national European films shown and subsidies from local authorities.<sup>6</sup>

### ***Preliminary view on barriers to entry/expansion***

42. We believe that if there is a commercial incentive for an existing cinema operator to expand into a new location there are no insurmountable barriers to entry, although it may take several years. We found that a number of new cinema openings are planned by existing cinema exhibitors, as set out in paragraphs 9 and 10.

### **Additional barriers faced by an entirely new entrant**

#### ***Deposits payable to film distributors***

43. Cineworld told us that a new entrant would need to obtain films through supply contracts with film distributors. This may involve the payment of a security deposit/ bond to a distributor. Picturehouse and Curzon confirmed that a new entrant might be required to pay deposits to the major distributors and that this could be a significant cost for a new entrant.

#### ***Film programming expertise***

44. We found that the main area in which a new entrant would require specific industry expertise is film programming. Cineworld told us that this could be obtained by employing a skilled film programmer or outsourcing programming to an organization such as the ICO, CSV or Curzon. Picturehouse told us that if a new entrant showed mainly blockbusters, it could programme its own films as the programming was likely to be simpler.

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<sup>6</sup> Picturehouse receives an annual subsidy from Aberdeen City Council towards the operations of the Belmont Picturehouse in Aberdeen [X].

### ***Parties' view on new entry***

45. Cineworld told us that, while a new cinema exhibitor would have the opportunity to achieve economies of scale by operating more than one cinema, this did not prevent new entrants opening with a single venue and there were 312 single-venue cinema operators in the UK. Cineworld provided the following examples of companies with other primary interests diversifying into film exhibition: G1 (a bar operator in Glasgow), Soda Film distributors and Firmdale Hotels.
46. However, the merger parties did not consider that there would be substantial entry into the UK film exhibition market in the form of the establishment of a new national chain of cinemas in the next three years.

### ***Our assessment of new entry***

47. There are some additional barriers faced by an entirely new supplier of cinema exhibition services but these appear to be surmountable as there is historical evidence of new independent cinemas opening, for example The Birks in Aberfeldy.

### **Timeliness, likelihood and sufficiency of entry or expansion**

48. We found that new multiplexes and non-multiplex cinemas have opened historically, albeit at a slower rate over the last few years due to the impact of the economic recession.
49. We believe that, if there is a commercial incentive to open a new cinema in a particular location, there are no insurmountable barriers to entry, although it may take several years from the start of the entry process. However, we found that a number of new cinema openings are already planned by existing cinema operators, both multiplex and non-multiplex, as set out in paragraphs 9 and 10, and therefore entry in locations such as these may be quicker. As part of our assessment of the competitive

effects of the transaction, we have considered the likelihood of entry on a case-by-case basis taking into account any circumstances specific to the local area.

50. Given the potential to achieve economies of scale through the operation of more than one cinema and the additional barriers to entry faced by new supplier of cinema exhibition services, it is expected that expansion by an existing cinema exhibitor into a new location is more likely than entry by a new cinema exhibitor.

## Pricing incentive analysis

### Introduction

1. In this appendix we summarize our analysis of the gross upward pricing pressure index (GUPPI), which we use to assess the strength of the change in incentives brought about by the merger.

### Description of theory

2. The cinema exhibition services provided by Cineworld and Picturehouse are differentiated services. As noted in the Merger Assessment Guidelines,<sup>1</sup> where products are differentiated, effects are more likely where the merger companies' products compete closely. In order to assess whether the merger results in unilateral effect concerns, we analyse the change in the pricing incentives of the merging companies created by bringing their differentiated products under common ownership or control.
3. Unilateral effects may arise because a price increase becomes less costly when the products of the two companies are brought under common ownership or control. Without the merger, it is costly for one of the merger companies to raise its prices because it will lose the profit on diverted sales as a result. The cost is composed of three elements:
  - (a) the profit on lost sales from customers who switch to the products of the other merging company;
  - (b) the profit on lost sales from customers who switch to products offered by companies other than the other merging company; and
  - (c) the profit on lost sales from customers who choose to purchase the product no longer.

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<sup>1</sup> CC2, [section 5.4](#).

4. After the merger, it is less costly for the merging company to raise prices because it will recoup the profit on recaptured sales from those customers who would have switched to the products of the other merging company. In the context of this transaction, the concern is that pre-merger the value of business lost by Cineworld to Picturehouse is entirely lost from Cineworld (and vice versa). Post-merger, however, if Cineworld increases prices, some proportion of its lost customers are likely to divert to Picturehouse, retaining within the Cineworld group some previously lost profit.
5. We can measure the strength of this change in incentives brought about by the merger using the GUPPI. GUPPIs do not attempt to estimate an actual price rise, but rather measure the strength of the internalization incentive by measuring the value of sales that is recaptured as margin post-merger.<sup>2</sup> The results from the GUPPI should be seen as one piece of evidence which should be considered in the round with other evidence. In this investigation the GUPPIs also provide information on the relative strength of the change in incentives in the different local areas.
6. The scale of this incentive for Cineworld will depend on two factors:
  - (a) the diversion ratio between the two businesses (how many lost sales are 'recaptured' by Picturehouse). Information on the diversion between cinemas was provided by the survey we carried out. The parties also estimated diversion ratios based on entry events; and
  - (b) the relevant margin Picturehouse would obtain on the customers who divert from Cineworld to Picturehouse.
7. For Picturehouse, the calculation follows an equivalent structure and looks at the diversion ratio from Picturehouse to Cineworld and the relevant margin at Cineworld.

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<sup>2</sup> For example, GUPPIs do not take account of any cost reductions that may result from synergies and the degree to which these cost reductions will be passed through to consumers in the form of lower prices.

8. In the formulas a correction is applied to adjust for the relative value of sales. This adjustment accounts for the fact that if the value of a customer attending a Picturehouse cinema is lower than that customer attending a Cineworld cinema, then the incentive effect will be reduced.<sup>3</sup> The formulas we use for estimating GUPPIs for Cineworld and Picturehouse are as follows:

$$\text{GUPPI for Cineworld} = \frac{\text{Diversion to Picturehouse}}{\text{Total diversion}} \times \frac{\text{Unit margin on Picturehouse sales}}{\text{Unit price on Cineworld sales}}$$

$$\text{GUPPI for Picturehouse} = \frac{\text{Diversion to Cineworld}}{\text{Total diversion}} \times \frac{\text{Unit margin on Cineworld sales}}{\text{Unit price on Picturehouse sales}}$$

9. These GUPPIs are then calculated for each of the cinemas investigated.<sup>4</sup> For example, the GUPPI for the Picturehouse Edinburgh is calculated as follows:

GUPPI for Picturehouse Edinburgh =

$$\frac{\text{Diversion to Cineworld Edinburgh}}{\text{Total diversion}} \times \frac{\text{Unit margin on Cineworld Edinburgh sales}}{\text{Unit price on Picturehouse sales}}$$

10. In the remainder of this appendix we discuss the diversion ratios and margin and revenue estimates we have used in our GUPPI calculations.

## Diversion ratios

11. Appendix D contains a detailed description of the CC survey and how the results were used to estimate diversion ratios. The parties also estimated diversion ratios based on event analyses and we discuss these below.

## *Parties' event analyses*

12. The parties carried out two event studies based on the opening of a Cineworld cinema in Aberdeen and the opening of the Picturehouse Bury St Edmunds.

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<sup>3</sup> And vice versa.

<sup>4</sup> In some local areas there is diversion to more than one cinema of the merging fascia, for example diversion from Cineworld Brighton to Picturehouse Brighton—Duke of York's and Picturehouse Brighton—Duke's @ Komedia. In this case the margin we have used is a weighted average of the margins of the two Picturehouse cinemas, weighted by the diversion from Cineworld Brighton.

### *Aberdeen event analysis*

13. The parties estimated diversion figures based on the opening of Cineworld Aberdeen—Union Square in 2009. The parties examined the box office revenue growth achieved by Picturehouse Aberdeen against two control groups over a one- and two-year period, generating four sensitivities for the counterfactual revenues. One control group was comprised of Picturehouse Edinburgh, Picturehouse Southampton and Picturehouse Henley-on-Thames, none of which faced any changes in local competitive conditions during this period, and the other group included all 21 Picturehouse cinemas.
14. Comparing the control groups' revenue growth with the actual revenue growth, the parties calculated the impact of Cineworld's entry on Picturehouse Aberdeen's box office revenues. This impact was then interpreted by the parties as the amount of box office revenue Picturehouse Aberdeen lost as a result of the new Cineworld opening and therefore was also seen as the amount of revenue the Picturehouse Aberdeen would regain if the new Cineworld were to close.
15. The parties told us that this amount divided by the new Cineworld's box office revenues could be seen as the proportion of the new Cineworld's box office revenue that would divert back to Picturehouse Aberdeen if the new Cineworld were to close. Assuming a constant linear relationship between box office revenues and customers, this is therefore also an estimate of the proportion of the new Cineworld customers that would divert to Picturehouse Aberdeen if the new Cineworld were to close. The parties told us that this was an estimate of the diversion ratio between Cineworld Aberdeen—Union Square and Picturehouse Aberdeen.
16. The results of their calculations are given in Table 1.



TABLE 1 **Estimated diversion ratios from Cineworld Aberdeen—Union Square to Picturehouse Aberdeen**

Control group used for counterfactual	Time horizon for counterfactual (%)	
	One year	Two years
Three control cinemas	[X]	[X]
All cinemas in chain	[X]	[X]

Source: Economic analysis provided by the parties.

17. The parties stated that:

entry episodes in Bury and Aberdeen provide a direct source of evidence on diversion ratios and suggest lower diversion ratios than those obtained by the CC's survey. We consider that such direct evidence of diversion ratios based on what customers did (rather than what they say they would do) should have higher weight than survey evidence.

18. While we recognize that actual events often provide valuable information which can be used to estimate diversion rates, we have some concerns regarding these diversion estimates.

19. First, the entry analysis carried out in Aberdeen is based on the entry of a new Cineworld cinema when there was already an existing Cineworld cinema in the town. Therefore the parties' figures do not estimate the diversion ratio in response to the closure (or price increase) of both Cineworld cinemas, but rather just in response to the closure (or price increase) of one cinema (Cineworld Aberdeen—Union Square). This is not what the CC survey diversion figures estimate, which is the diversion ratio in response to the closure (or price increase) of both Cineworlds. It is therefore unsurprising that the parties' diversion ratios are lower than those provided by the CC survey results. We estimated the importance of this effect by estimating the diversion ratio for Cineworld Aberdeen—Union Square to Cineworld Aberdeen Queenslink.

This was 42 to 47 per cent, depending on the control group used. This is consistent with the view that the parties' estimate understates diversion from the Cineworld fascia as a whole to the Picturehouse fascia.

20. Second, one of the comparator sets used by the parties involves all Picturehouse cinemas. We would expect that the Picturehouse Aberdeen should be excluded from the control group as it is affected by the event. However, we re-estimated the diversion ratios removing the Picturehouse Aberdeen from the control group and this did not affect the results substantially. The year 1 control group figure went from 4.1 to 4.2 per cent and the year 2 control group figure went from 3.7 to 3.8 per cent.
21. Third, the GBOR data for Picturehouse Henley-on-Thames suggests that this cinema has very variable revenues, due to the high proportion of event screenings at this cinema. We therefore do not consider this cinema to be a good control cinema.

### *Bury St Edmunds*

22. The parties also estimated diversion figures, based on Picturehouse Bury St Edmunds opening in February 2010, using a similar method to that adopted for Picturehouse Aberdeen. The formula they used was:

$$\text{Diversion ratio} = \frac{(\text{Expected Cineworld revenue} - \text{Actual Cineworld revenue})}{(\text{New Picturehouse revenue} - \text{Expected Hollywood revenue})}$$

23. The results are given in Table 2.<sup>5</sup>

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<sup>5</sup> The parties provided updated estimates on 26 July 2013 which used different comparators.

TABLE 2 **Bury St Edmunds: parties' diversion calculations**

Control group used for counterfactual	Time horizon for counterfactual (%)	
	One year	Two years
Three control cinemas	–[ $\infty$ ]	–[ $\infty$ ]
All cinemas in chain	–[ $\infty$ ]	–[ $\infty$ ]

Source: Parties' economic analysis.

24. The parties stated:

As shown above, the results do not make economic sense and suggest large negative diversion ratios from Picturehouse to Cineworld. This is due to the fact that despite the entry of Picturehouse into the area, Cineworld Bury St Edmunds outperformed both sets of control cinemas during the relevant period.

While this means that we are not able to calculate robust estimates of the diversion ratio based on this example of entry, this shows that the impact of the entry on Cineworld Bury St Edmunds must have been too small to hinder its performance, demonstrating that the extent of the competitive interaction between the two cinemas is low.

25. We have some concerns regarding these diversion estimates.

26. First, as the parties acknowledged, the entry of Picturehouse was the result of the acquisition of an existing Hollywood cinema, rather than de novo entry. The diversion estimates are therefore not based on the impact of the opening of Picturehouse Bury St Edmunds, but are instead based on the conversion of the pre-existing Hollywood cinema to a Picturehouse cinema. Therefore the increase in revenue at Cineworld Bury St Edmunds may be due to the fact that the Hollywood cinema, which operated prior to Picturehouse Bury St Edmunds opening, was a closer competitor to the Cineworld cinema than the current Picturehouse is. Consistent with this, our analysis

of the revenue overlap for the Hollywood cinema in the last 12 months of its operation showed that 34 per cent of Cineworld's revenues came from films which overlapped with the Hollywood cinema. This compares to a figure of 26 per cent of Cineworld's revenues overlapping with the Picturehouse in the last 12 months.

27. Second, the comparator sets used by the parties involve all Cineworld cinemas. We would expect that the Cineworld Bury St Edmunds should be excluded from the control group as it is affected by the event. However, we re-estimated the diversion ratios, removing the Cineworld Bury St Edmunds from the control group, and this did not affect the results substantially. The year 1 control group figure went from 5.6 to 5.5 per cent and the year 2 control group figure went from 9.3 to 9.2 per cent.

### **Margin and revenue calculations**

28. In this section, we explain how we estimated the margin and revenue figures that were used in the GUPPI estimates. We first outline the method adopted. We then discuss the revenue and cost items we included in our analysis. We then present our GUPPI estimates.

### ***Method***

29. In our GUPPI estimates we used the expected margins and revenue that Cineworld and Picturehouse could expect to obtain from an additional film admission. We used film admission, rather than a weighted average of film and other admissions, as we believed that the majority of marginal customers switching between Picturehouse and Cineworld would be likely to see a film, rather than an event screening.<sup>6</sup> We also included in our calculations the margins and revenues that would be obtained from ancillary revenues, such as food and drink and cinema advertising. We discuss this in more depth below.

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<sup>6</sup> Sensitivity analysis based on including screen event revenues are given in Table 13.

## Revenue items

30. Below we explain which revenue items we include in our estimate of the margins Cineworld and Picturehouse would obtain from one additional film admission.

### Cineworld

31. Cineworld's management accounts split revenues into four different categories: Box Office, Retail, Screen Advertising and Other. We included 100 per cent of Box Office, Retail and Screen Advertising Revenues.<sup>7</sup>

### Picturehouse

32. Picturehouse's management accounts split revenues into 16 different categories. The revenues we included and excluded from our analysis and the reasons for this are given in Table 3.<sup>8</sup>

TABLE 3 Picturehouse revenue items included in GUPPI analysis

Cost item	Inclusion/ exclusion %	Reasoning
Ticket income	[X]	Ticket income is directly related to film admissions.
Bar income	[X]	Picturehouse was unable to estimate the % of bar/kiosk income that relates to customers who are not attending a film. We have assumed that all bar/kiosk
Other bar income	[X]	income is from cinemagoers (and have adjusted to exclude income from event screening admissions).
Kiosk income	[X]	
Advertising income	[X]	Advertising income varies with total admissions (films and alternative content). It has been assumed that advertising income is earned at the same rate for both films and event screening.
Programme income	0	Advertising income from monthly cinema programmes/brochures is not variable with film admissions.
Membership income	0	Membership income does not vary with film admissions as a marginal customer diverting would be unlikely to take out membership at the other party.
Hires income	0	Not variable with film admissions
Screen events income	0	Event screening income is excluded
Other events income	0	Not variable with film admissions
Education income	0	Not variable with film admissions
Rent & service charge income	0	Not variable with film admissions
Credit card booking fees	[X]	Credit card booking fees are also attracted on event screening income
Grants	0	Not variable with film admissions
VPF income	0	Not variable with film admissions
Other income	0	Not variable with film admissions

Source: Parties' and CC analysis.

<sup>7</sup> Other revenues were zero for the Cineworld cinemas in the period used in our analysis. We did not split out the revenues that Cineworld took from admission to events other than films, eg National Theatre productions, as this was less than [X] per cent of Cineworld's revenues.

<sup>8</sup> Picturehouse Aberdeen receives a subsidy from the local council and part of its contract with the council states that any surplus above the annual subsidy shall be shared equally between Picturehouse and the council. Picturehouse confirmed that [X].

## Cost items

33. Below we explain which cost items we include in our estimate of the margins Cineworld and Picturehouse would obtain from one additional film admission.

### Cineworld

34. We asked the parties for their views on which cost items were variable and the responses from Cineworld and our views are summarized in Table 4.

TABLE 4 Cineworld cost items included in the GUPPI analysis

<i>Cost item</i>	<i>Cineworld views %</i>	<i>CC views %</i>	<i>Reason for difference</i>
Film rental	[X]	[X]	
Digital cost of sales	0	0	
Virtual print fee income	0	0	
Retail	[X]	[X]	
Unlimited, ticket & credit cards	[X]	[X]	Membership has been excluded as it is unlikely a customer diverting from Picturehouse will take out membership.
Advertising & publicity	0	0	
Labour variability figure			
Labour	[X]	[X]	Cineworld gave us a labour cost breakdown into security, cleaning salaries and hourly costs. The proportion used is hourly staff wages as a proportion of labour costs.
Repairs & maintenance	0	0	
Utilities	[X]	[X]	
Other	0	0	
Rates & service charge	0	0	

Source: Parties' and CC analysis.

### Picturehouse

35. We asked the parties for their views on which cost items were variable, and the responses from Picturehouse and our views are summarized in Table 5.

TABLE 5 Picturehouse cost items included in the GUPPI analysis

<i>Cost item</i>	<i>Picturehouse views %</i>	<i>CC view %</i>	<i>Reason for difference</i>
Film rentals	[X]	[X]	
Concessions cost of sales	[X]	[X]	
Discounts, allowances & wastage	[X]	[X]	
Non-consumables	[X]	[X]	
Equipment rent	0	0	
Membership costs	[X]	0	Membership costs have been excluded to be consistent with exclusion of membership income
Hire costs	[X]	0	Consistent with income assumption
Screen event costs	[X]	0	Consistent with income assumption
Other event costs	[X]	0	Consistent with income assumption
Education costs	[X]	0	Consistent with income assumption
Staff costs	[X]	[X]	
Bonuses	[X]	[X]	
Additional hours	[X]	[X]	
Recruitment & training	[X]	0	Costs are unlikely to be variable with cinema admissions
Licences	[X]	[X]	
Film transport	0	0	
Credit card commission	[X]	[X]	
Other direct costs	0	0	
Tickets	[X]	[X]	
Advertising	0	0	
Programmes/promo materials	0	0	
Travel & expenses	0	0	
Marketing costs	0	0	
Telephone	0	0	
Stationery	0	0	
Postage	0	0	
Rent & service charges	0	0	
Rates	0	0	
Utilities	[X]	[X]	
Insurances	0	0	
Cleaning	[X]	[X]	
Security	[X]	[X]	
Directors fees	0	0	
Staff benefits	0	0	
Recruitment and staff training	0	0	
Legal & professional fees	0	0	
Bad debts	0	0	
Asset disposals	0	0	
Amortization	0	0	
Depreciation	0	0	
Building repairs & maintenance	0	0	
Equipment repairs & maintenance	0	0	
Equipment leases	0	0	
Bank charges	0	0	
Miscellaneous expenses	0	0	
Banking discrepancies	0	0	

Source: Parties' and CC analysis.

### **GUPPI estimates**

36. In this section, we present the results of our GUPPI analysis. For each Picturehouse and Cineworld cinema we calculated two GUPPI figures, one which was based on

the lowest diversion ratio estimate and one which was based on the highest diversion ratio estimate. The GUPPI estimates are given in Table 6.

TABLE 6 **GUPPI estimates**

	<i>GUPPI based on lowest diversion ratio</i>	<i>GUPPI based on highest diversion ratio</i>
Cineworld Aberdeen—Union Square	6	7
Cineworld Aberdeen—Queens Link	5	9
Picturehouse Aberdeen	29	30
Cineworld Brighton	2	3
Picturehouse Brighton—Duke of York's	11	11
Picturehouse Brighton—Duke @ Komedia	5	5
Cineworld Bury St Edmunds	6	6
Picturehouse Bury St Edmunds	32	32
Cineworld Edinburgh	2	2
Picturehouse Edinburgh	7	7
Cineworld Cambridge	5	6
Picturehouse Cambridge	13	15
Cineworld Southampton	2	2
Picturehouse Southampton	11	11
Cineworld West India Quay Cineworld	0	2
Cineworld Greenwich—The O2	1	2
Cineworld Bexleyheath	0	0
Picturehouse Greenwich	7	10
Picturehouse Stratford	7	8
Cineworld Chelsea	0	0
Cineworld Fulham Road	0	0
Cineworld Wandsworth	3	4
Picturehouse Clapham	13	14

Source: CC survey data and parties' margin data.

## Sensitivity analysis

37. We carried out a number of sensitivity analyses on our GUPPI calculations and report these below. None of these sensitivity analyses led us to change our overall conclusions.

## Capacity issues

38. Our marginal cost assumptions are based on the view that additional cinemagoers can be accommodated without investing in new auditoriums. If there was large diversion which necessitated added investment, then the margin estimates we have used would be less applicable, as to accommodate the extra customers the cinemas would need to invest in additional capacity, increasing their costs. We discuss Picturehouse to Cineworld diversion and Cineworld to Picturehouse diversion separately below. We decided to use Saturday data for our capacity analysis. This



was because if the evidence showed that there would be sufficient capacity at Cineworld on Saturdays to absorb diversion from Picturehouse (and vice versa) then it was likely there would be sufficient capacity on other days of the week.

### *Picturehouse to Cineworld*

39. Picturehouse provided data on its cinemas' average Saturday attendance levels. Cineworld provided data which showed that capacity utilization varied across the week, with Saturday typically having the highest capacity utilization. Table 7 shows the average capacity utilization at Cineworld cinemas in the nine areas we investigated further and compares this with the Saturday attendance levels at the corresponding Picturehouse cinemas.

TABLE 7 **Picturehouse to Cineworld capacity calculations**

<i>Area of interest</i>	<i>Cineworld cinema</i>	<i>Saturday capacity utilization %</i>	<i>Saturday showings</i>	<i>Seats</i>	<i>Daily spare capacity</i>	<i>Picturehouse Saturday admissions</i>	<i>Cineworld space capacity/ Picturehouse admissions</i>
Aberdeen	Aberdeen Queens Link	[REDACTED]	6	2,154	[REDACTED]	[REDACTED]	[REDACTED]*
Aberdeen	Aberdeen Union Square	[REDACTED]	6	2,382	[REDACTED]		
Brighton	Brighton	[REDACTED]	6	2,020	[REDACTED]	[REDACTED]	[REDACTED]
Bury St Edmunds	Bury St Edmunds	[REDACTED]	6	1,472	[REDACTED]	[REDACTED]	[REDACTED]
Cambridge	Cambridge	[REDACTED]	6	1,700	[REDACTED]	[REDACTED]	[REDACTED]
Clapham	Wandsworth	[REDACTED]	6	2,778	[REDACTED]	[REDACTED]	[REDACTED]
Edinburgh	Edinburgh	[REDACTED]	6	3,003	[REDACTED]	[REDACTED]	[REDACTED]
Greenwich	The O2	[REDACTED]	6	2,828	[REDACTED]	[REDACTED]	[REDACTED]
Southampton	Southampton	[REDACTED]	6	1,651	[REDACTED]	[REDACTED]	[REDACTED]
Stratford	West India Quay	[REDACTED]	6	2,257	[REDACTED]	[REDACTED]	[REDACTED]

Source: CC analysis of parties' data.

\*Since there are two Aberdeen Cineworlds, the Aberdeen Picturehouse admissions have been compared with the sum of the spare capacity of the two cinemas. In diversion from Cineworld has been compared with the sum of capacity at Duke of York's and Duke's @ Komedia.

†Average attendance at Duke of York's was [REDACTED] and [REDACTED] at Duke's @ Komedia, summing to [REDACTED].

40. Table 7 shows that in every case the average spare capacity at the Cineworld on a Saturday is many times the average total Saturday admissions at the corresponding Picturehouse. We therefore considered that capacity constraints were unlikely to be an issue for Picturehouse customers diverting to Cineworld.

## Cineworld to Picturehouse

41. Cineworld and Picturehouse both provided capacity utilisation figures for Saturdays and our calculations regarding diversion from Cineworld to Picturehouse for non-London cinemas are in Table 8 below.

TABLE 8 Cineworld to Picturehouse calculations—non-London cinemas

Area of interest	Aberdeen		Brighton	Bury St Edmunds	Cambridge	Edinburgh	Southampton
Cineworld cinema	Aberdeen Queens Link	Aberdeen Union Square	Brighton	Bury St Edmunds	Cambridge	Edinburgh	Southampton
Saturday attendance	[X]	[X]	[X]	[X]	[X]	[X]	[X]
% diverting in response to price increase	[X]	[X]	[X]	[X]	[X]	[X]	[X]
% diverting to corresponding* Picturehouse	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Number diverting to Picturehouse	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Picturehouse spare capacity	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Ratio of diversion to space	3.5		7.0	0.8	4.9	5.7	28.9

Source: CC analysis of parties' data.

\*We have taken diversion ratios from the responses to the forced diversion questions as these have larger sample sizes than the price diversion ratios.

42. The results for the London cinemas are in Table 9.

TABLE 9 Cineworld to Picturehouse calculations—London cinemas

Area of interest	Clapham			Greenwich			Stratford	
Cineworld cinema	Chelsea	Fulham Road	Wandsworth	Bexleyheath	The O2	West India Quay	The O2	West India Quay
Saturday attendance	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
% diverting in response to price increase	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
% diverting to corresponding Picturehouse	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Number diverting to Picturehouse	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Picturehouse spare capacity		[X]			[X]		[X]	
Ratio of diversion to space		4.5			6.9		26.0	

Source: CC analysis of parties' data.

43. The results for Bury St Edmunds suggest that not all diversion on a Saturday from Cineworld Bury St Edmunds could be accommodated at Picturehouse Bury St Edmunds. However, when assessing the effect of the merger our focus is on the

marginal customers and it may be that some of these marginal customers may switch from visiting the cinema on a Saturday to visiting on other days. Consistent with this, the responses to our survey showed that a substantial proportion ([x]) per cent) of visits to Cineworld Bury St Edmunds were by customers who chose the film and then went on a day it was showing, suggesting that they were flexible regarding the day they would visit the cinema. Looking at capacity across the year, the data shows that during 2012 average occupancy was [x] per cent, compared with the [x] per cent figure on Saturdays. Average attendance at Cineworld Bury St Edmunds was [x] per day. Performing the same calculations as those above in Table 9 with these figures gives a ratio of [x], implying across the year there are [x] spare seats at Picturehouse Bury St Edmunds as would divert from Cineworld Bury St Edmunds.

### ***Parties' Survey results***

44. The Parties' Survey and the CC survey are discussed in Appendix D. For comprehensiveness, in Table 10 we present GUPPI calculations for the Picturehouse cinemas based on our margin estimates and the low diversion ratio estimated by the Parties' Survey.

TABLE 10 **GUPPI based on parties' survey low diversion ratio**

	<i>Parties' Survey low diversion ratio</i>	<i>Derived GUPPIs</i>
Picturehouse Aberdeen	[x]	20
Picturehouse Brighton—Duke of York's/Duke's @ Komedia	[x]	8
Picturehouse Bury St Edmunds	[x]	17
Picturehouse Edinburgh	[x]	8
Picturehouse Cambridge	[x]	10
Picturehouse Southampton	[x]	6
Picturehouse Greenwich	[x]	4
Picturehouse Stratford	[x]	4
Picturehouse Clapham	[x]	5

Source: CC analysis of parties' data.

### ***Diversion ratios with 'Cineworld—other' and 'Picturehouse—other' removed***

45. One concern the parties raised related to the list of alternative cinemas that the respondents could choose between when responding to the price increase question.

They told us that including in the list of alternative cinemas the options ‘Cineworld—Other’, ‘Picturehouse—Other’ and ‘Other’, rather than ‘Another multiplex cinema’ and ‘Another non-multiplex cinema’ could potentially bias upwards diversion to the parties.<sup>9</sup>

46. We performed sensitivity analysis to assess the potential impact of this on the diversion ratio calculations. Responses which could be attributed to the merging party, ie ‘Cineworld—Other’ or ‘Picturehouse—Other’, were removed and added to ‘Other—cinema’ category. In all cases the change is small, with the largest percentage change being at Cineworld Greenwich—The O2, where the diversion ratio drops from 9 to 7 per cent, suggesting that any bias is likely to be minimal. The results are in Table 11.

TABLE 11 Diversion ratios if ‘Cineworld—Other’ or ‘Picturehouse—Other’ are removed

	<i>Diversion ratio</i>	<i>Augmented diversion ratio</i>	<i>Diversion ratio with Cineworld and Picturehouse Other removed</i>	<i>Augmented diversion ratio with Cineworld and Picturehouse other removed</i>
Cineworld Aberdeen—Union Square	[X]	[X]	[X]	[X]
Cineworld Aberdeen—Queens Link	[X]	[X]	[X]	[X]
Picturehouse Aberdeen	[X]	[X]	[X]	[X]
Cineworld Brighton	[X]	[X]	[X]	[X]
Picturehouse Brighton—Duke of York’s	[X]	[X]	[X]	[X]
Picturehouse Brighton—Duke @ Komedia	[X]	[X]	[X]	[X]
Cineworld Bury St Edmunds	[X]	[X]	[X]	[X]
Picturehouse Bury St Edmunds	[X]	[X]	[X]	[X]
Cineworld Edinburgh	[X]	[X]	[X]	[X]
Picturehouse Edinburgh	[X]	[X]	[X]	[X]
Cineworld Cambridge	[X]	[X]	[X]	[X]
Picturehouse Cambridge	[X]	[X]	[X]	[X]
Cineworld Southampton	[X]	[X]	[X]	[X]
Picturehouse Southampton	[X]	[X]	[X]	[X]
Cineworld West India Quay	[X]	[X]	[X]	[X]
Cineworld Greenwich—The O2	[X]	[X]	[X]	[X]
Cineworld Bexleyheath	[X]	[X]	[X]	[X]
Picturehouse Greenwich	[X]	[X]	[X]	[X]
Picturehouse Stratford	[X]	[X]	[X]	[X]
Cineworld Chelsea	[X]	[X]	[X]	[X]
Cineworld Fulham Road	[X]	[X]	[X]	[X]
Cineworld Wandsworth	[X]	[X]	[X]	[X]
Picturehouse Clapham	[X]	[X]	[X]	[X]

Source: CC survey data and parties’ data.

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\*Sample of customers diverting too small for results to be shown.

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<sup>9</sup> We note that if we had used the parties’ suggestion of ‘Another non-multiplex cinema’ and ‘Another multiplex cinema’ we would have been unable to allocate these to the relevant fascia.

### ***Food and drink consumption***

47. The food and drink offer is an important part of Picturehouse's business and in some Picturehouse cinemas customers may purchase food and drink without attending the cinema. In our GUPPI calculations we have adjusted the revenues from food and drink to account for visitors attending event screenings rather than film events at Picturehouse cinemas. We asked the parties for information on the proportion of food and drink revenues that were due to sales to customers not attending the cinema but they were unable to provide estimates. We therefore carried out some sensitivity analysis based on different assumptions regarding the amount of food and drink sales that could be attributed to customers not attending the cinema. For Picturehouse cinemas, our assumption is that between [X] and [X] per cent of food and drink revenues come from film attendees, proportional to the number of visits to film showings compared with event screenings showings. For Cineworld, our assumption is that [X] per cent of food and drink revenues are associated with cinema attendance. To assess the sensitivity of these assumptions, we estimated GUPPIs with two different assumptions. In Scenario 1 we assumed that 75 per cent of Picturehouse food and drink revenues came from film visits and that for Cineworld the figure was 90 per cent. For Scenario 2 we assumed 50 per cent for Picturehouse and 80 per cent for Cineworld. The figures are in Table 12.

TABLE 12 GUPPIs if assumptions regarding food and drink revenues are varied

	CC view		Scenario 1		Scenario 2	
Picturehouse food and drink revenues from film admissions (%)	[X]		75%		50%	
Cineworld food and drink revenues from film admissions (%)	[X]%		90%		80%	
	Lowest diversion	Highest diversion	Lowest diversion	Highest diversion	Lowest diversion	Highest diversion
Cineworld Aberdeen—Union Square	6	7	5	6	5	5
Cineworld Aberdeen—Queens Link	5	9	4	8	4	7
Picturehouse Aberdeen	29	30	30	31	31	32
Cineworld Brighton	2	3	2	2	1	2
Picturehouse Brighton—Duke of York's	11	11	11	11	12	12
Picturehouse Brighton—Duke @ Komedia	5	5	6	6	6	6
Cineworld Bury St Edmunds	6	6	4	5	3	5
Picturehouse Bury St Edmunds	32	32	32	32	33	33
Cineworld Edinburgh	2	2	1	2	1	2
Picturehouse Edinburgh	7	7	7	7	7	7
Cineworld Cambridge	5	6	4	5	3	5
Picturehouse Cambridge	13	15	13	15	14	16
Cineworld Southampton	2	2	2	2	1	1
Picturehouse Southampton	11	11	11	11	11	11
Cineworld West India Quay	0	2	0	1	0	1
Cineworld Greenwich—The O2	1	2	1	1	1	1
Cineworld Bexleyheath	0	0	0	0	0	0
Picturehouse Greenwich	7	10	7	10	8	10
Picturehouse Stratford	7	8	8	8	8	8
Cineworld Chelsea	0	0	0	0	0	0
Cineworld Fulham Road	0	0	0	0	0	0
Cineworld Wandsworth	3	4	2	3	2	2
Picturehouse Clapham	13	14	13	15	14	15

Source: CC survey data and parties' data.

### Event screening revenues

48. A further sensitivity we carried out was to include all event screening income in our revenue and margin calculations, rather than just including film revenue. The GUPPIs based on this assumption are presented in Table 13. Changing this assumption leads to an increase in the GUPPIs at some of the Cineworld cinemas, including Cineworld Bury St Edmunds, Cineworld Cambridge and Cineworld Wandsworth. This is because the inclusion of other event screenings raises average ticket prices, improving the margins at the corresponding Picturehouse cinemas. The GUPPIs at the Picturehouse cinemas tend to drop, as the inclusion of event screenings leads to an increase in the average revenue per visit.

TABLE 13 **GUPPIs if event screenings are included**

	<i>Film admission GUPPIs</i>		<i>Film admission and event screenings income GUPPIs</i>	
	<i>Lowest diversion</i>	<i>Highest diversion</i>	<i>Lowest diversion</i>	<i>Highest diversion</i>
Cineworld Aberdeen—Union Square	6	7	6	7
Cineworld Aberdeen—Queens Link	5	9	5	9
Picturehouse Aberdeen	29	30	27	28
Cineworld Brighton	2	3	3	3
Picturehouse Brighton—Duke of York's	11	11	10	10
Picturehouse Brighton—Duke @ Komedia	5	5	5	5
Cineworld Bury St Edmunds	6	6	8	9
Picturehouse Bury St Edmunds	32	32	28	29
Cineworld Edinburgh	2	2	2	3
Picturehouse Edinburgh	7	7	6	6
Cineworld Cambridge	5	6	7	8
Picturehouse Cambridge	13	15	12	14
Cineworld Southampton	2	2	3	3
Picturehouse Southampton	11	11	10	10
Cineworld West India Quay	0	2	0	2
Cineworld Greenwich—The O2	1	2	1	2
Cineworld Bexleyheath	0	0	0	0
Picturehouse Greenwich	7	10	7	10
Picturehouse Stratford	7	8	7	7
Cineworld Chelsea	0	0	0	0
Cineworld Fulham Road	0	0	0	0
Cineworld Wandsworth	3	4	3	5
Picturehouse Clapham	13	14	13	14

Source: CC survey data and parties' data.

### ***Sensitivity using parties' margins from elasticity estimates***

49. The parties told us that the responses to the survey question on the likely response to a price increase made it possible to estimate the elasticity of demand and from that estimate a margin figure. Table 14 shows the GUPPIs if one uses the margin calculated by the parties in combination with the diversion ratios from the survey response. Since the parties' estimates for the Picturehouse margins are higher than the margins from the accounting data, use of these margins leads to the Cineworld GUPPI figures in Table 14 to increase or remain constant. Use of the Cineworld margins leads to the Picturehouse GUPPI figures in the table decreasing or remaining constant.

TABLE 14 GUPPIs if parties' margin estimates are used

	CC GUPPIs		GUPPIs based on parties' margins	
	Lowest diversion	Highest diversion	Lowest diversion	Highest diversion
Cineworld Aberdeen—Union Square	6	7	22	27
Cineworld Aberdeen—Queens Link	5	9	19	35
Picturehouse Aberdeen	29	30	9	9
Cineworld Brighton	2	3	14	17
Picturehouse Brighton—Duke of York's	11	11	3	3
Picturehouse Brighton—Duke @ Komedia	5	5	1	1
Cineworld Bury St Edmunds	6	6	49	56
Picturehouse Bury St Edmunds	32	32	10	10
Cineworld Edinburgh	2	2	4	5
Picturehouse Edinburgh	7	7	2	2
Cineworld Cambridge	5	6	24	28
Picturehouse Cambridge	13	15	5	6
Cineworld Southampton	2	2	16	16
Picturehouse Southampton	11	11	3	3
Cineworld West India Quay	0	2	2	4
Cineworld Greenwich—The O2	1	2	5	7
Cineworld Bexleyheath	0	0	1	1
Picturehouse Greenwich	7	10	2	2
Picturehouse Stratford	7	8	3	3
Cineworld Chelsea	0	0	0	0
Cineworld Fulham Road	0	0	0	0
Cineworld Wandsworth	3	4	9	16
Picturehouse Clapham	13	14	4	5

Source: CC survey data and parties' calculations.



## Competitive effects

1. This appendix sets out the evidence we collected on the competitive effects of the merger relating to two of the three theories of harm set out in our issues statement:
  - (a) Theory of Harm 1—unilateral effects due to local overlaps; and
  - (b) Theory of Harm 2—unilateral effects due to potential competition from new cinema developments.

### Theory of Harm 1

2. The concern under Theory of Harm 1 is that the removal of one competitor, in some or all of the areas where the parties both have cinemas, could allow the merging parties to increase their prices or reduce the quality of their services locally. We first discuss Picturehouse's existing cinemas and then Cineworld's existing cinemas.

### *Picturehouse existing cinemas*

3. As a first stage, we carried out a filtering process to rule out local areas where the merger was unlikely to raise competition concerns. The first step involved identifying Picturehouse cinemas which were more than 30 minutes' drive-time from the nearest Cineworld cinema. The second step was based on any overlap within 20 or 30 minutes' drive-time of the Picturehouse cinemas and where the reduction in fascias<sup>1</sup> left at least four competing fascias. At this stage, when considering the number of fascias we excluded independent cinemas.<sup>2</sup> Using these steps, we identified those areas where we believed there were unlikely to be competition concerns. We considered this to be a cautious approach to the competitive assessment of the merger outside London, that was likely to capture some areas where, on further examination,

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<sup>1</sup> The term fascias here is used to mean cinemas under independent ownership. We recognize that following the merger Cineworld and Picturehouse intend to continue to operate different brands, but for the purposes of this appendix we treat them as one fascia as they are under common ownership.

<sup>2</sup> Independent cinemas are primarily those which are not part of a wider chain. The fascias we included in our fascia test were Cineworld, Curzon, Empire, Everyman, Hollywood, Odeon, Picturehouse, Reel, Showcase and Vue.

the merger would be unlikely to lead to competition concerns and was unlikely to exclude areas where competition concerns might actually arise. The situation in London is potentially different, due to the different travel patterns and the prevalence of travelling to the cinema by public transport.

4. We considered the 21 cinemas Picturehouse operates in the UK.
5. Three of these 21 Picturehouse cinemas are more than 30 minutes from a Cineworld cinema and therefore we did not consider the merger likely to lead to competition concerns in the areas around these cinemas.<sup>3</sup>
6. Of the remaining 18 cinemas, in nine cases there would still be at least four fascias remaining in the area after the merger, based on both 20- and 30-minute isochrones. Having carried out this analysis, we cross-checked the outcome with the list of ten areas that the OFT had investigated in more depth and noted that there were two London cinemas, Clapham and Stratford, which had not been shortlisted through our filtering process. Given that the OFT had based its assessment on survey data (a tool which was not used as part of our filtering process) and the fact that drive-time analysis may be less applicable in London, we considered it prudent to carry out further analysis of these two areas and therefore added them back into our shortlist of cinemas for further analysis.<sup>4</sup>
7. The 11 Picturehouse cinemas which we investigated in more depth were Aberdeen, Brighton—Duke of York's, Brighton—Duke's @ Komedia, Bury St Edmunds, Cambridge, Clapham, Edinburgh, Greenwich, Oxford, Southampton and Stratford.

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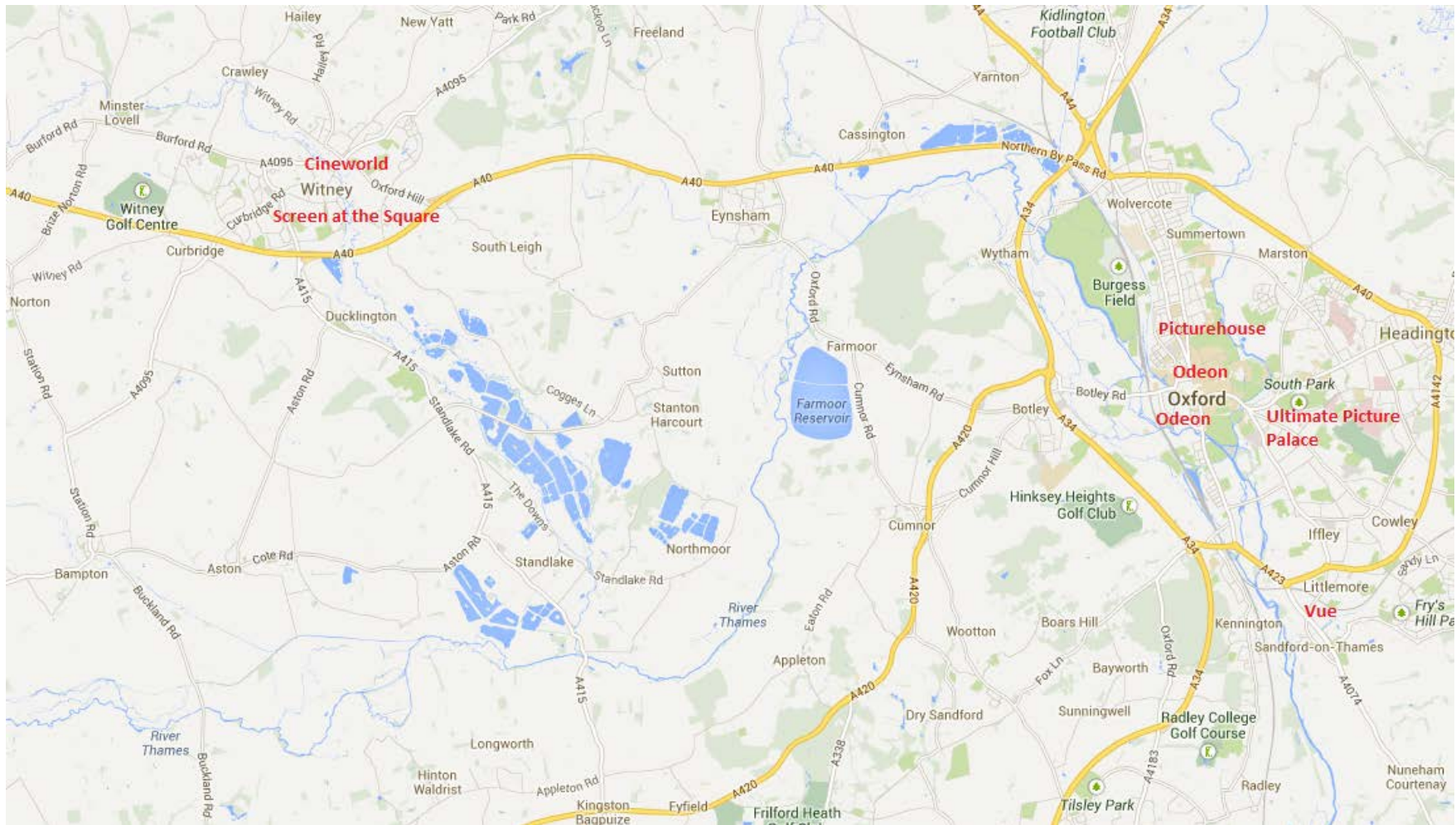
<sup>3</sup> These three cinemas are Exeter, Norwich and York.

<sup>4</sup> The OFT had also investigated Stratford upon Avon in more depth, but given that this site was outside London, we were confident that the fascia analysis based on drive-times was robust.

8. We then considered the circumstances in Oxford, where there would be no overlap between the parties based on a 20-minute isochrone. For a 30-minute isochrone the fascia count would be four to three if the two independents (Ultimate Picture Place and Screen at the Square) were excluded. The overlap is due to the presence of a Cineworld cinema in Witney.

FIGURE 1

**Cinemas in the Oxford area**



Source: CC analysis.

9. Given the distances between Witney and Oxford, the presence of two Odeons, a Vue and independent cinemas in Oxford, our view was that it was unlikely that the merger would lead to competition concerns for in this local area.

### *Conclusion of filtering process*

10. Consequently, the ten Picturehouse cinemas we investigated in more depth were: Aberdeen, Brighton—Duke of York's, Brighton—Duke's @ Komedia, Bury St Edmunds, Cambridge, Clapham, Edinburgh, Greenwich, Southampton and Stratford.

### ***Cineworld existing cinemas***

11. We used the same approach for the 79 cinemas Cineworld operates in the UK.
12. Forty-nine of these 79 Cineworld cinemas were more than 30 minutes from a Picturehouse cinema and therefore we did not consider that the merger would be likely to lead to competition concerns in the areas around these cinemas.<sup>5</sup>
13. Of the remaining 30 cinemas, in 20 cases there would still be at least four fascias remaining after the merger, based on both 20- and 30-minute isochrones. However, we noted that the OFT had investigated in more depth Clapham and Stratford and therefore we decided to investigate the Cineworld cinemas surrounding these Picturehouse cinemas. For Picturehouse Clapham these were Cineworld Chelsea, Cineworld Fulham Road and Cineworld Wandsworth. For Picturehouse Greenwich, these were Cineworld Bexleyheath, Cineworld Greenwich—The O2 and Cineworld West India Quay. For Picturehouse Stratford, these were Cineworld Greenwich—The O2 and Cineworld West India Quay.

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<sup>5</sup> See Annex 2 for a list of 49 Cineworld cinemas and their nearest Picturehouse cinema.

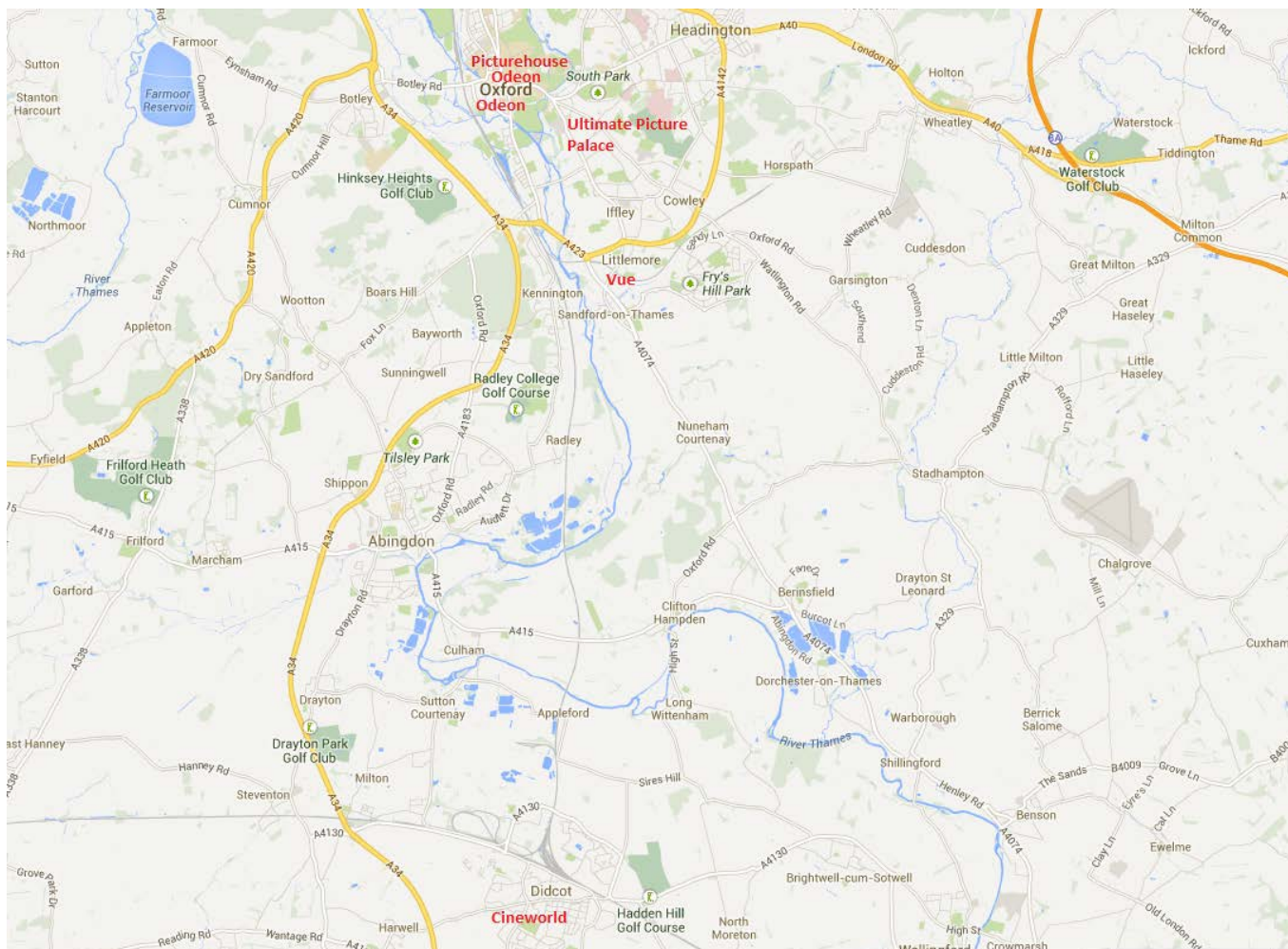
14. The remaining 16 cinemas were Aberdeen Queens Link, Aberdeen—Union Square, Bexleyheath, Brighton, Bury St Edmunds, Cambridge, Chelsea, Didcot, Edinburgh, Fulham Road, Greenwich—The O2, High Wycombe, Southampton, Wandsworth, West India Quay and Witney.
15. We reviewed maps of the areas surrounding these 16 cinemas and considered the circumstances in Didcot, High Wycombe and Witney.

#### *Didcot*

16. Didcot lies approximately 15 miles to the south of Oxford, where there is a Picturehouse cinema. Cineworld operates the only cinema in Didcot, but because of the proximity to Oxford Picturehouse the merger would lead to a four to three reduction in fascia count if one uses a 30-minute isochrone. On a 20-minute isochrone there would be no change in fascia.

FIGURE 2

**Cinemas in the Didcot area**



Source: CC analysis.

17. Figure 2 showed that there was a considerable distance between Didcot and Oxford and that the Vue to the south-east of Oxford was closest to Didcot. Furthermore, there were two Odeons and two independent cinemas in Oxford. Consequently, our view was that it was unlikely that the merger would lead to competition concerns in this local area.

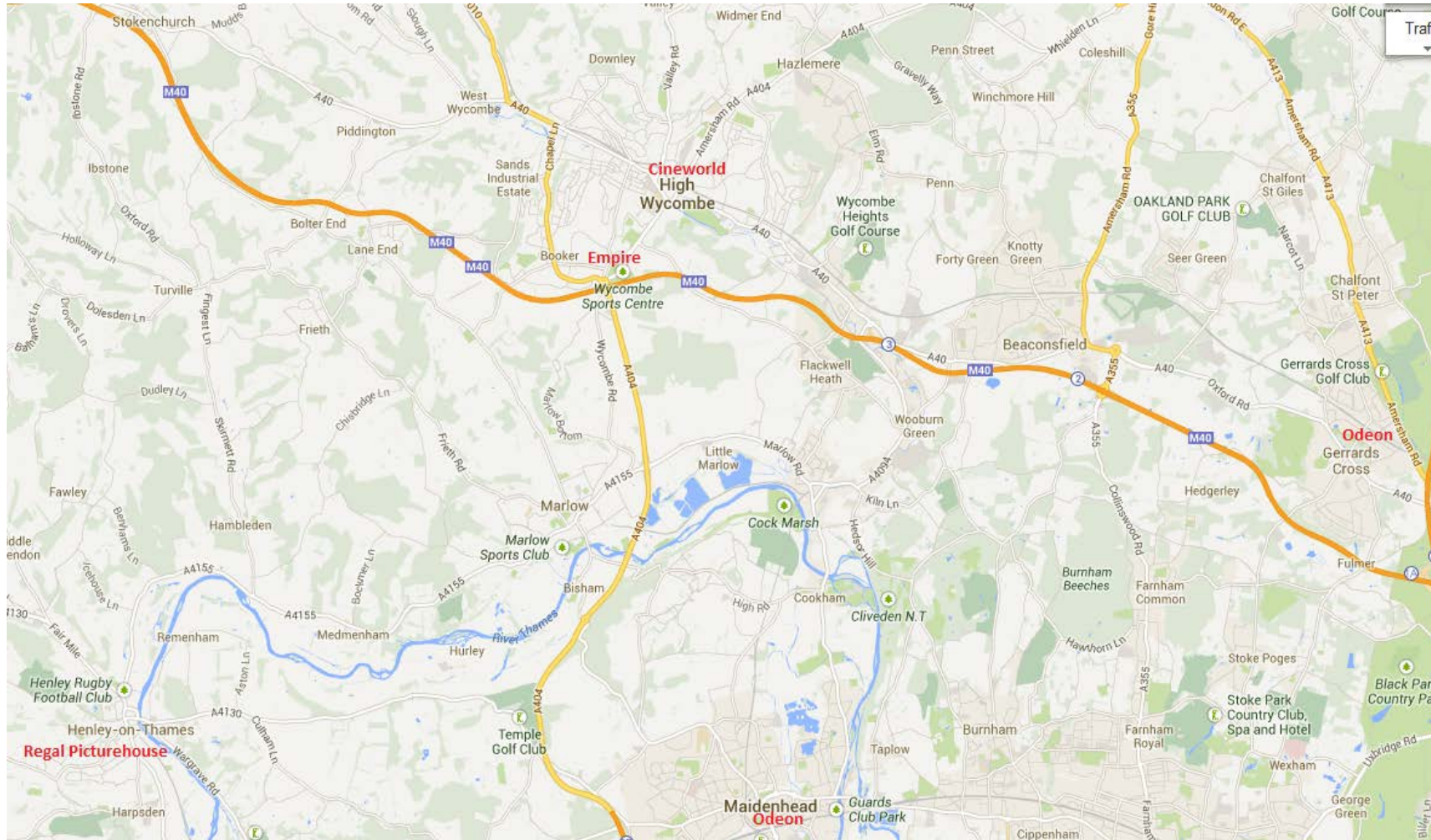
#### *High Wycombe*

18. High Wycombe lies approximately 15 miles to the north-east of Henley-on-Thames, where there is a Picturehouse cinema. Empire also operates a cinema in High Wycombe and Odeon operates a cinema in Gerrards Cross. Due to the proximity to Picturehouse Henley-on-Thames, the merger would lead to a four to three reduction in fascias based on 30-minute isochrones. There would be no change based on a 20-minute isochrone.



FIGURE 3

**Cinemas in the High Wycombe area**



Source: CC analysis.

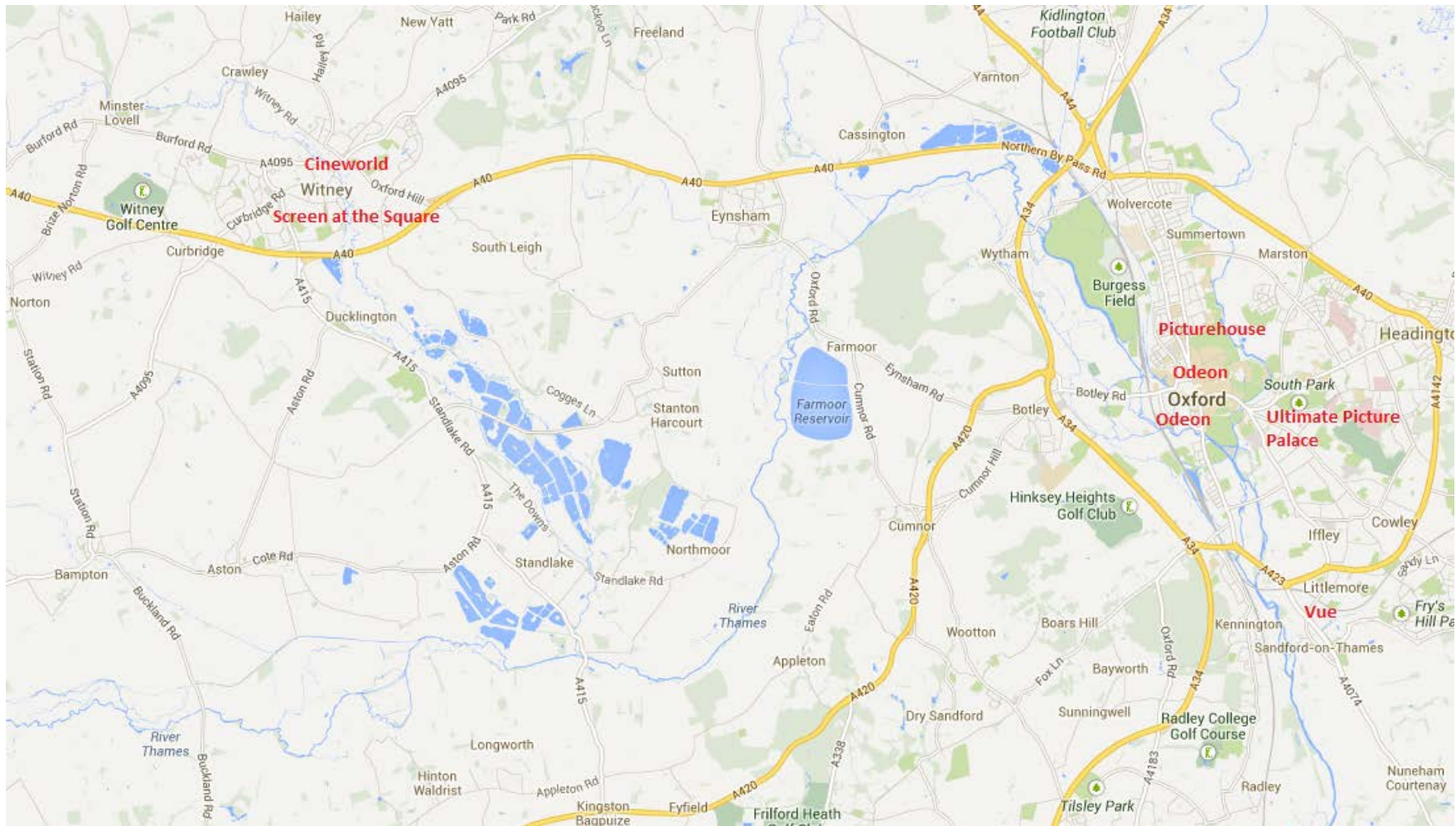
19. Given the competition Cineworld faces from Empire High Wycombe and the distances between High Wycombe and Henley-on-Thames, our view was that it was unlikely that the merger would lead to competition concerns in this local area.

*Witney*

20. Witney lies approximately 15 miles to the west of Oxford, where there is a Picturehouse cinema. Cineworld operates a cinema in Witney, but because of the proximity to Picturehouse Oxford the merger would lead to a four to three reduction in fascias based on 30-minute isochrones. There would be no change based on a 20-minute isochrone.

FIGURE 4

**Cinemas in the Witney area**



Source: CC analysis.

Given the presence of the Screen at the Square in Witney, the distances between Witney and Oxford, and the presence of two Odeons, a Vue and independent cinemas in Oxford, our view was that it was unlikely that the merger would lead to competition concerns in this local area.

### *Conclusion of filtering process*

21. The 13 Cineworld cinemas which we investigated in more depth were: Aberdeen—Queens Link, Aberdeen—Union Square, Bexleyheath, Brighton, Bury St Edmunds, Cambridge, Chelsea, Edinburgh, Fulham Road, Greenwich—The O2, Southampton, Wandsworth and West India Quay.

### ***Areas for analysis of local competition***

22. The ten Picturehouse cinemas and 13 Cineworld cinemas fall into nine local areas and we analyse these in depth below:
- (a) Aberdeen—Picturehouse Aberdeen, Cineworld Aberdeen—Queens Link and Cineworld Aberdeen—Union Square.
  - (b) Brighton—Picturehouse, Brighton—Duke of York's, Picturehouse Brighton, Duke's @ Komedia and Cineworld Brighton.
  - (c) Bury St Edmunds—Picturehouse Bury St Edmunds and Cineworld Bury St Edmunds.
  - (d) Cambridge—Picturehouse Cambridge and Cineworld Cambridge.
  - (e) Clapham—Picturehouse Clapham, Cineworld Chelsea, Cineworld Fulham Road and Cineworld Wandsworth.
  - (f) Edinburgh—Picturehouse Edinburgh and Cineworld Edinburgh.
  - (g) Greenwich—Picturehouse Greenwich, Cineworld Bexleyheath, Cineworld Greenwich—The O2 and Cineworld West India Quay.
  - (h) Southampton—Picturehouse Southampton and Cineworld Southampton.

- (i) Stratford—Picturehouse Stratford, Cineworld Greenwich—The O2 and Cineworld West India Quay.



## Aberdeen

23. In this section, we describe evidence we have reviewed relating to the competitive effects of the merger in Aberdeen. A map of the cinemas in this local area is given in Annex 4.

### *Competition in Aberdeen and fascia reduction*

24. In Aberdeen there are four cinemas:
- (a) Picturehouse operates Picturehouse Aberdeen (and has done since 2000) under an agreement with Aberdeen City Council in exchange for a subsidy.<sup>6</sup> The agreement means Picturehouse must maintain a diverse programme of film and events.<sup>7</sup>
  - (b) Cineworld operates two multiplex cinemas, Aberdeen—Queens Link and Aberdeen—Union Square.
  - (c) Vue operates a multiplex in the centre of Aberdeen, which is less than a mile from Picturehouse Aberdeen.

TABLE 1 **Aberdeen: competitive landscape**

<i>Cinema</i>	<i>Drive-time from Picturehouse (minutes)</i>	<i>Screens</i>	<i>Screens share %</i>	<i>Seats</i>	<i>Seats share %</i>	<i>GBOR £</i>	<i>GBOR share %</i>	<i>Adult standard ticket price £</i>
Picturehouse Aberdeen		3	10	469	7	[X]	[0–10]	8.50
Cineworld Aberdeen—Union Square	3.4	10	34	2,382	37	[X]	[50–60]	9.30
Cineworld Aberdeen—Queens Link	4.2	9	31	2,154	33	[X]	[30–40]	9.30
Post-merger		22	76	5,005	77	[X]	[80–90]	
Vue	2.1	7	24	1,470	23	[X]	[10–20]	7.85

Source: Data on screens and seats taken from the [parties' initial submission](#), GBOR taken from Rentrak, drive-times from MapInfo.

25. The merger would lead to a three to two reduction in fascia count based on 20- and 30 -minute isochrones.

<sup>6</sup> The cinema is also known as the Belmont Picturehouse.

<sup>7</sup> [Initial submission](#), p44.

### *Parties' evidence*

26. The parties' first survey, carried out at the OFT stage, asked Picturehouse Aberdeen customers what they would have done if the Picturehouse had been unavailable. Of the [80–90] per cent of customers who said that they would visit an alternative cinema, [80–90] per cent said they would visit Cineworld and [40–50] per cent said Vue.<sup>8</sup>

27. The Parties provided evidence of the differences between Picturehouse Aberdeen and the two Cineworld cinemas. Out of the [X] individual films/arts performances screened at Picturehouse Aberdeen in 2012, [X] ([70–80] per cent) were not shown at either of the Cineworlds in Aberdeen.<sup>9</sup> The parties also noted:

[60–70] per cent of respondents to a survey undertaken by Picturehouse of its active mailing list in February 2013 (the 'Picturehouse Customer Survey' or 'First Survey') selected the ability to view a range of arthouse/independent films and screen arts events as one of the top three factors influencing their decision to visit the Belmont Picturehouse. In a further survey of both Picturehouse and Cineworld customers carried out in April 2013 (the 'Picturehouse/Cineworld Customer Survey' or 'Second Survey'), a majority of the patrons of the Aberdeen Cineworlds and the Belmont Picturehouse who responded to the survey considered that art-house/independent cinemas such as the Belmont Picturehouse appeal to a different audience to multiplex cinemas ([90–100] per cent of Belmont Picturehouse respondents and [60–70] per cent of Cineworld Aberdeen

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<sup>8</sup> Parties' Survey of Aberdeen Picturehouse customers. Respondents could choose more than one cinema.

<sup>9</sup> Initial submission, p44.

respondents agreed or strongly agreed with the statement 'A multiplex cinema experience is different to an art-house cinema experience').<sup>10</sup>

28. Cineworld told us that in its [REDACTED].
29. The parties provided evidence on the differences between the Cineworld and Picturehouse audiences in Aberdeen. For example, Picturehouse customers tended to be older and more affluent than Cineworld customers. The parties said that the survey also showed that respondents agreed that attending a multiplex cinema was a different experience from attending an art-house cinema.
30. Picturehouse said that it [REDACTED]. We noted, however, that in its business plan for Picturehouse Aberdeen, it said that [REDACTED] and that [REDACTED].
31. The parties submitted evidence which first defined the geographic market around each of the merging parties' cinemas as the area capturing 80 per cent of the cinema's customers. They then examined the choice set of each postal sector in the geographic market as defined above by reapplying the same catchment around each postal sector. The parties said this analysis recognized, for example, that if the catchment area of a cinema was 26 minutes, then a customer at the edge of the catchment area might have access to another cinema 26 minutes away in the opposite direction, meaning that other cinemas up to a maximum 52 minutes away could potentially competitively constrain the merging parties' cinema for that customer. This approach is also known as 'customer recentering'. The parties then assessed the number of competitor cinemas in the Aberdeen area by applying two filters:
  - (a) 'Filter 1: Cinemas that are part of national chains (Vue, Odeon, Empire, Reel, Everyman, Showcase and Curzon), plus all other

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<sup>10</sup> [ibid](#), p44.



cinemas that (i) screened at least 2 of the top 5 grossing films in the UK at the time of observation;<sup>4</sup> and (ii) have at least 14 film screenings per week (i.e. average of 2 screenings per day).

(b) Filter 2: All cinemas that have at least 10 film screenings per week (equivalent to for instance, 2 screenings on Fridays, Saturdays and Sundays and 1 screening on other days).’

32. The results of this analysis based on 80 per cent catchment isochrones showed that the merger would lead to fascia reduction from three to two for the Picturehouse and two Cineworld cinemas. The parties’ 80 per cent catchment isochrones for Aberdeen resulted in 49-minute (Picturehouse), 55-minute (Cineworld Aberdeen—Queens Link) and 50-minute (Cineworld Aberdeen—Union Square) drive-times. The parties provided an updated analysis based on 30-minute catchment areas. These results also showed that in Aberdeen the reduction in fascias was three to two, irrespective of the filter used.

### Survey evidence

33. Our survey asked customers how long they had travelled to get to the cinema. The results are summarized below.

TABLE 2 **Aberdeen: survey responses on travel times**

	<i>Cineworld Aberdeen— Queens Link</i>	<i>Cineworld Aberdeen— Union Square</i>	<i>per cent Picturehouse Aberdeen</i>
Less than 10 minutes	[X]	[X]	[X]
11–20 minutes	[X]	[X]	[X]
21–30 minutes	[X]	[X]	[X]
31–40 minutes	[X]	[X]	[X]
41–50 minutes	[X]	[X]	[X]
51–60 minutes	[X]	[X]	[X]
More than an hour	[X]	[X]	[X]
Don't know/can't remember	*	*	[X]

Source: CC survey.

34. This suggests that [80–90] per cent of Cineworld Aberdeen—Queens Link visits involve journey time of 40 minutes or less. The figure for Cineworld Aberdeen—Union Square is [80–90] per cent and for Picturehouse Aberdeen it is [90–100] per cent.

### *Revenue overlap analysis*

35. The parties' revenue overlap analysis is summarized in Table 3. The figure of [30–40] per cent implies that the Cineworld Aberdeen—Queens Link obtained [30–40] per cent of its revenues in 2012 from films which were also shown on the same day in Picturehouse Aberdeen. We noted that Picturehouse Aberdeen obtains [50–60] per cent of its revenues from films which were shown on the same day at Cineworld Aberdeen—Queens Link and [70–80] per cent of its revenues from films which were shown on the same day at Cineworld Aberdeen—Union Square. Cinemas which have higher revenue overlap figures are likely to have similar film programming and therefore revenue overlap figures may provide evidence on the extent to which customers may see cinemas as valid alternatives.

TABLE 3 **Aberdeen: revenue, film and viewings overlap**

	<i>per cent</i>			
	<i>Cineworld Aberdeen— Queens Link</i>	<i>Picturehouse Aberdeen</i>	<i>Cineworld Aberdeen— Union Square</i>	<i>Picturehouse Aberdeen</i>
% of overlapping box office	[X]	[X]	[X]	[X]
% of overlapping films	[X]	[X]	[X]	[X]
% of overlapping viewings	[X]	[X]	[X]	[X]

Source: The parties.

36. We carried out our own revenue overlap analysis of the cinemas in Aberdeen. Table 4 shows the revenue overlap for Aberdeen cinemas based on a daily overlap for the period from 20 June 2012 to 20 June 2013. For example, the figure of [20–30] per cent shows that [20–30] per cent of Cineworld's Aberdeen—Queens Link revenue overlaps with Picturehouse Aberdeen's revenue.

TABLE 4 **Aberdeen: revenue overlap**

		<i>per cent</i>			
		(1)	(2)	(3)	(4)
Picturehouse Aberdeen	(1)	[60–70]	[60–70]	[60–70]	[60–70]
Cineworld Aberdeen—Queens Link	(2)	[60–70]	[60–70]	[60–70]	[60–70]
Cineworld Aberdeen—Union Square	(3)	[60–70]	[60–70]	[60–70]	[60–70]
Vue Aberdeen	(4)	[60–70]	[60–70]	[60–70]	[60–70]

Source: Rentrak.

37. The daily overlaps show that the Cineworlds and the Vue show a very similar range of films, with all their overlaps in the [90–100] per cent or greater range.
38. Picturehouse Aberdeen's overlap is higher with the two Cineworlds than the Vue and is highest ([60–70] per cent) with Cineworld Aberdeen—Union Square, the cinema that is located closest to Picturehouse Aberdeen.

### *Historic visits analysis*

39. In our survey we asked members of Picturehouse Aberdeen and the two Cineworld cinemas which cinemas they had visited in the last six months. Table 5 summarizes the customer overlap between the cinemas. For example, the figure of [20–30] per cent means that [20–30] per cent of Picturehouse Aberdeen admissions are from customers who have visited the Cineworld Queens Link in the last six months.<sup>11</sup> We did not survey Vue customers and so cannot give data for the other cinemas visited by Vue customers.

<sup>11</sup> These figures are weighted by number of visits to the cinema. Therefore a customer who has visited the Aberdeen Picturehouse six times in the last 12 months is counted six times in the percentage calculations.

TABLE 5 **Aberdeen: customer overlaps—weighted by visit**

		<i>per cent</i>			
		(1)	(2)	(3)	(4)
Picturehouse Aberdeen	(1)	100	[30]	[30]	[30]
Cineworld Aberdeen—Queens Link	(2)	[30]	100	[30]	[30]
Cineworld Aberdeen—Union Square	(3)	[30]	[30]	100	[30]
Vue Aberdeen	(4)	N/A	N/A	N/A	N/A

Source: CC survey.

Note: N/A = not available.

40. The results show substantial overlap between the two Cineworld cinemas, with [60–70] per cent of visits to Cineworld Aberdeen—Queens Link coming from customers who had also visited Cineworld Aberdeen—Union Square. Further, [50–60] per cent of visits to Picturehouse Aberdeen are from customers who have visited Cineworld Aberdeen—Union Square in the last six months. For the Cineworld cinemas, [10–20] per cent and [20–30] per cent of visits are from customers who have visited the Picturehouse in the last six months.

### *GUPPI analysis*

41. The estimated diversion ratios and GUPPIs for Picturehouse Aberdeen, Cineworld Aberdeen—Queens Link and Cineworld Aberdeen—Union Square are given in Table 6. The diversion ratios are the highest and lowest diversion ratios we obtained from our survey.<sup>12</sup>

TABLE 6 **Aberdeen: GUPPI calculations**

	<i>Picturehouse Aberdeen</i>		<i>Cineworld Aberdeen— Queens Link</i>		<i>Cineworld Aberdeen— Union Square</i>	
	<i>Lowest diversion</i>	<i>Highest diversion</i>	<i>Lowest diversion</i>	<i>Highest diversion</i>	<i>Lowest diversion</i>	<i>Highest diversion</i>
Diversion ratio	[30]	[30]	[30]	[30]	[30]	[30]
GUPPI estimate	29	30	5	9	6	7

Source: Diversion ratios are from CC survey evidence and margin data is from the parties.

<sup>12</sup> More detail on the method is provided in Appendix D.

42. The OFT's GUPPI estimate for Picturehouse Aberdeen was 17 per cent.<sup>13</sup>

### *Event analysis*

43. In October 2009, Cineworld opened a second cinema in Aberdeen in Union Square. The impact of the Cineworld cinema opening can therefore be used as an event to investigate the extent of competition between the Cineworld and Picturehouse cinemas. We calculated the box office revenues obtained by the Picturehouse in the 12 months prior to opening and the 12 months after opening.<sup>14</sup> We then compared that with two control groups. The first control group consisted of Picturehouses where no entry events had taken place since May 2007. The second control group was the five Picturehouse cinemas whose revenues had the highest correlation with Picturehouse Aberdeen in the 12 months prior to the event. The results in Table 7 suggest that the new Cineworld cinema had the effect of substantially reducing Picturehouse Aberdeen's revenues.

TABLE 7 **Aberdeen: events analysis**

	<i>GBOR before</i>	<i>GBOR after</i>	<i>% change</i>
Picturehouse Aberdeen	[X]	[X]	-34
No events control group	[X]	[X]	2
Correlation control group	[X]	[X]	-2

Source: Rentrak.

### *Third parties' evidence*

44. Curzon provided estimates of the revenue overlap for Cineworld and Picturehouse cinemas in Aberdeen. Their estimates were based on a comparison of the films shown between 1 January 2013 and 23 May 2013, and films were considered to be overlapping if they were shown at either of the two Cineworlds in Aberdeen and the

<sup>13</sup> OFT, [Completed acquisition by Cineworld plc of City Screen Limited](#), Table 3.

<sup>14</sup> Data for the month surrounding the day of opening was not included in the analysis.

Picturehouse within this five-month period. Curzon's analysis showed that 78 per cent of Picturehouse's revenues came from films shown by Cineworld.

45. Odeon's market shares monitoring in Aberdeen included Picturehouse Aberdeen.

46. Vue's [REDACTED].

### *New entry*

47. No parties have raised any barriers to entry specific to Aberdeen and no parties have made us aware of any planned new cinemas in Aberdeen. Curzon told us that the level of demand in Aberdeen would not be sufficient to support another cinema.

48. Odeon did not believe that there was an opportunity for another cinema in the city centre, although the opening of the Aberdeen Western Peripheral Route to the north of the city in three years' time could open up opportunities in the longer term.

49. Picturehouse Aberdeen generated EBITDA of £[REDACTED] on revenues of £[REDACTED] ([REDACTED] per cent). However, Picturehouse receives an annual subsidy from Aberdeen City Council (£[REDACTED] in 2012). [REDACTED]

### ***Brighton***

50. In this section, we describe evidence we have reviewed relating to the competitive effects of the merger in Brighton. A map of the cinemas in this local area is given in Annex 4.

### *Competition in Brighton and fascia reduction*

51. In Brighton there are four cinemas:

- (a) Picturehouse operates the Duke of York cinema and the Duke's @ Komedia cinema. The parties told us that Duke of York's Picturehouse was a Europa cinema, which received funding from the European Union to show European films. In broad terms, to be a member, and therefore attract grant funding, a cinema must have at least 22 per cent of its screenings as first-run (ie within a year of their release) European (excluding UK) films.<sup>15</sup>
- (b) Cineworld operates a multiplex cinema which is located to the east of the town.
- (c) Odeon operates a multiplex in the centre of Brighton.

52. In addition to these cinemas in Brighton, in Burgess Hill, which is just over 20 minutes' drive from the Duke of York cinema, there is the Orion Cinema, which has two screens.

TABLE 8 Brighton: competitive landscape

Operator	Drive-time from Picturehouse (minutes)	Screens	Screens share %	Seats	Seats share %	GBOR £	Adult standard ticket price £
Duke's of York Picturehouse		1	5	283	5	[X]	9.50
Duke's @ Komedia	0.9	2	9	248	5	[X]*	9.50
Cineworld Brighton Marina	5.9	8	36	2,020	39	[X]	9.00
<b>Post-merger</b>		<b>11</b>	<b>50</b>	<b>2,468</b>	<b>44</b>		
Odeon Brighton	3.0	8	36	1990	43	[X]	8.95
Orion Burgess Hill	21.5	2	9	271	5	[X]	6.20†
Curzon Crawley	29.9	1	5	146	3	[X]‡	8.00§

Source: Data on screens and seats taken from the parties' initial submission, GBOR taken from Rentrak, drive-times from MapInfo.

\*From 7/12/12 to 20/6/2013.

†[www.orioncinema.com/](http://www.orioncinema.com/).

‡From 22/9/12 to 14/6/2013.

§[www.parkwoodtheatres.co.uk/thehawth/productionpage.aspx?hid=6&nid=5732\\_2](http://www.parkwoodtheatres.co.uk/thehawth/productionpage.aspx?hid=6&nid=5732_2).

53. For the parties' cinemas, the merger would lead to a three to two reduction in fascia count based on a 20-minute isochrone. For a 30-minute isochrone, the reduction would be three to two for both the Cineworld and the Picturehouse Duke's @ Komedia. For the Duke of York Picturehouse, the reduction would be four to three, due to the presence of a Curzon franchise cinema in Crawley, which is just under 30 minutes' drive-time from the Duke of York cinema.

<sup>15</sup> Initial submission, p48.

### *Parties' evidence*

54. Cineworld told us that in its market share analysis in Brighton it included the Picturehouse cinemas.
55. Picturehouse said that it did not monitor competitors' programming in Brighton.
56. The parties provided evidence of the differences between the Duke of York's Picturehouse and the Cineworld Brighton:

Over the past three years around [60–70] per cent of films shown at the Duke of York's Picturehouse have not been screened at another cinema in the area. It has shown on average only [×] of the UK's annual top 20 films over the past three years. This is in contrast to the Cineworld Brighton, which has shown [×] of the UK's annual top 20 films for each of the past three years.<sup>16</sup>

Out of the [×] individual films and arts performances shown at the Duke of York's Picturehouse in 2012, only [0–10] per cent were shown at the Cineworld Brighton.<sup>17</sup>

57. The parties' first survey asked Duke of York Picturehouse customers what they would have done if the Picturehouse had been unavailable. Of the [80–90] per cent of customers who said that they would visit an alternative cinema, [70–80] per cent said they would visit the Odeon and [50–60] per cent said they would visit the Cineworld. The parties' first survey asked Duke's @ Komedia customers if the Duke's @ Komedia customers what they would have done if the Picturehouse had been unavailable. Of the [80–90] per cent of customers who said that they would visit

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<sup>16</sup> Initial submission, p47.

<sup>17</sup> *ibid*, p47.



an alternative cinema, [70–80] per cent said they would visit Odeon and [50–60] per cent said Cineworld.

58. The parties said that Picturehouse's differentiated programming was valued highly by its Brighton customers: [80–90] per cent of respondents to the first survey selected the ability to view a range of art-house/independent films and screen arts events as one of the top three factors influencing their decision to visit the Duke of York's Picturehouse.<sup>18</sup>
59. A survey the parties carried out showed that [50–60] per cent of the audience at Duke of York's had travelled on foot.
60. The parties submitted evidence which first defined the geographic market around each of the merging parties' cinemas as the area capturing 80 per cent of the cinema's customers and then assessed competition by recentering the isochrones around customers. The results of this analysis for Brighton showed that the merger would lead to a fascia reduction from five to four or more, irrespective of the filter applied. The parties provided an updated analysis based on 30-minute catchment areas. The results for this showed that for Brighton the reduction in fascias was five to four or more, irrespective of the filter used.
61. The parties' 80 per cent catchment isochrones for Brighton resulted in a 50-minute drive-time for the Duke of York's cinema and 34 minutes for Cineworld Brighton.

### *Survey evidence*

62. Our survey asked customers how long they had travelled to get to the cinema. The results are summarized below.

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<sup>18</sup> [Initial submission](#), p48.

TABLE 9 Brighton: survey responses on travel times

	<i>per cent</i>	
	<i>Cineworld Brighton Marina</i>	<i>Duke of York's/ Duke's @ Komedia</i>
Less than 10 minutes	[X]	[X]
11–20 minutes	[X]	[X]
21–30 minutes	[X]	[X]
31–40 minutes	[X]	[X]
41–50 minutes	[X]	[X]
51–60 minutes	[X]	[X]
More than an hour	[X]	[X]
Don't know/can't remember	-	*

Source: CC survey.

63. This suggests that [80–90] per cent of Cineworld Brighton visits involve a journey time of 30 minutes or less. The figure for Picturehouse cinemas is [80–90] per cent.

### *Revenue overlap analysis*

64. The parties' revenue overlap analysis is summarized in Table 10.

TABLE 10 Brighton: revenue, film and viewings overlap

	<i>per cent</i>	
	<i>Cineworld Brighton</i>	<i>Picturehouse Duke of York's</i>
% of overlapping box office	[X]	[X]
% of overlapping films	[X]	[X]
% of overlapping viewings	[X]	[X]

Source: The parties.

65. We carried out our own revenue overlap analysis and the results are shown in Table 11.

TABLE 11 Brighton: revenue overlap

	<i>per cent</i>				
	(1)	(2)	(3)	(4)	(5)
Picturehouse Brighton—Duke of York's	(1)	[X]	[X]	[X]	[X]
Picturehouse Brighton—Duke's at Komedia	(2)	[X]	[X]	[X]	[X]
Odeon Brighton	(3)	[X]	[X]	[X]	[X]
Cineworld Brighton	(4)	[X]	[X]	[X]	[X]
Orion Burgess Hill	(5)	[X]	[X]	[X]	[X]

Source: Rentrak.

66. Odeon Brighton and Cineworld Brighton have over [90–100] per cent overlap. The overlap between the two Picturehouses is very low, implying that they rarely show the same films as each other. Picturehouse Duke of York's overlap with Cineworld Brighton is [40–50] per cent whilst Picturehouse Duke's @ Komedia's is [60–70] per cent.

### Historic visits

67. The figures for Brighton are in Table 12.

TABLE 12 Brighton: customer overlaps by historic visits—weighted by visit

		<i>per cent</i>				
		(1)	(2)	(3)	(4)	(5)
Brighton—Duke of York's	(1)	[<math>\infty</math>]	[<math>\infty</math>]	[<math>\infty</math>]	[<math>\infty</math>]	[<math>\infty</math>]
Brighton—Duke's at Komedia	(2)	[<math>\infty</math>]	[<math>\infty</math>]	[<math>\infty</math>]	[<math>\infty</math>]	[<math>\infty</math>]
Brighton—Odeon	(3)	N/A	N/A	N/A	N/A	N/A
Brighton Marina—Cineworld	(4)	[<math>\infty</math>]	[<math>\infty</math>]	[<math>\infty</math>]	100	[<math>\infty</math>]
Crawley—Cineworld	(5)	N/A	N/A	N/A	N/A	N/A

Source: CC survey.

#### Notes:

1. Cinemas have been excluded from the list if no overlaps of over 5 per cent were recorded.
2. N/A = not available.

68. Interpretation of the figures is made more difficult by the fact that we only interviewed members of Picturehouse Duke of York's cinema, but the responses allowed customers to say whether they had visited Duke of York's or Duke's @ Komedia in the last six months. The data suggests that the overlap between Picturehouse and Odeon is greater than Picturehouse and Cineworld, with [40–50] per cent of visits to Picturehouse cinemas coming from customers who had also visited Odeon in the last six months. [30–40] per cent of visits to the Picturehouse cinemas are from customers who have visited the Cineworld in the last six months. For the Cineworld, [10–20] per cent of visits are from customers who have visited the Duke of York's cinema and [10–20] per cent are from customers who have visited Duke's @ Komedia.

## GUPPI analysis

69. The estimated diversion ratios and GUPPIs for Picturehouse Duke of York's, Picturehouse Duke's @ Komedia and Cineworld Brighton are given in Table 13.

TABLE 13 Brighton: GUPPI calculations

	Picturehouse Duke of York's		Picturehouse Duke's @ Komedia		Cineworld Brighton	
	Lowest diversion	Highest diversion	Lowest diversion	Highest diversion	Lowest diversion	Highest diversion
Diversion ratio	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
GUPPI estimate	11	11	5	5	2	3

Source: Diversion ratios are from CC survey evidence and margin data is from the parties.

70. The OFT's GUPPI estimate for the Brighton Picturehouse was 7 per cent.<sup>19</sup>

## Event analysis

71. In December 2012, Picturehouse opened a second cinema in Brighton. This cinema is only 6 minutes' drive-time from the Cineworld cinema in Brighton. The impact of the Picturehouse cinema opening can therefore be used as an event to investigate the extent of competition between the Cineworld and Picturehouse cinemas.

TABLE 14 Brighton: events analysis

	GBOR before	GBOR after	Percentage change
Cineworld Brighton	[REDACTED]	[REDACTED]	-11
No events control group	[REDACTED]	[REDACTED]	-9
Correlation control group	[REDACTED]	[REDACTED]	-8

Source: Rentrak.

72. The results suggest that the opening of Picturehouse Duke's @ Komedia led to a relatively small reduction of Cineworld Brighton's revenues.

<sup>19</sup> OFT, [Completed acquisition by Cineworld plc of City Screen Limited](#), Table 3. The GUPPI estimate is a combined estimate for both Picturehouse Brighton—Duke's @ Komedia and Picturehouse Brighton—Duke of York's.

### *Third parties' evidence*

73. Curzon provided estimates of the revenue overlap for Cineworld and Picturehouse cinemas in Brighton. Their estimates for Duke of York's and Duke's @ Komedia were based on a comparison of the films shown between 1 January 2013 to 23 May 2013 and films were considered to be overlapping if they were shown at the Cineworld in Brighton and the Picturehouses within this five-month period. Curzon's analysis showed that 65 per cent of the Duke of York's revenues came from films shown by Cineworld and for Duke's @ Komedia the figure was 66 per cent.
74. The Connaught Theatre in Worthing described the Dome Theatre in Worthing as its main competitor and did not monitor either the Picturehouses or Cineworld in Brighton.
75. Odeon's market shares monitoring in Brighton included the two Picturehouses.
76. Odeon told us that the opening of Duke's @ Komedia had reduced Odeon Brighton's share of cinema attendance by [X] per cent, from [X] to [X] per cent.<sup>20</sup>

### *New entry*

77. The parties told us that Brighton was a destination city which could support additional cinemas, including an 'art-house' cinema.<sup>21</sup> We found that there were plans to build a new eight-screen multiplex cinema on the site of the Hippodrome.<sup>22</sup> The developer (Alaska Development) told us that it had been discussing the proposals with the council for about approximately a year and this was an ongoing process with the Planning Officers. Pre-application discussions started in April/May 2013 and the

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<sup>20</sup> Market share based on all cinemas in the television region.

<sup>21</sup> The parties also told us of a possible development in Hove, but acknowledged that this was still at an early stage and was 'speculative'. We did not consider that the timing and likelihood of this development was sufficiently certain to be relevant for our assessment.

<sup>22</sup> [www.alaskagroup.com/brighton-hippodrome-to-be-reinstated-as-entertainment-hub-of-lanes-following-18million-cinema-transformation/](http://www.alaskagroup.com/brighton-hippodrome-to-be-reinstated-as-entertainment-hub-of-lanes-following-18million-cinema-transformation/).

proposals were due to be independently reviewed on during the summer by English Heritage. A full application with detailed plans was due to be submitted in mid-September 2013, provided the feedback from English Heritage was positive. A response was expected by January 2014. Alaska told us that Vue had been the catalyst for the scheme. [X] Alaska had worked with Cineworld in the past; however, it had not investigated whether any other operators might be interested in the site as there had been no need to date.

78. Brighton and Hove City Council was unable to give a definitive view on the likelihood of the Alaska cinema scheme going ahead. There clearly would be objections from the Theatre's Trust and the Regency Society and potentially others. However, the view of the Assistant Chief Executive was that Alaska's proposals were the most viable option to have come forward to date, and that if these did not go ahead a possible alternative fate of the Hippodrome could be demolition.

### ***Bury St Edmunds***

79. In this section, we describe evidence we have reviewed relating to the competitive effects of the merger in Bury St Edmunds. A map of the cinemas in this local area is given in Annex 4.

### ***Competition in Bury St Edmunds and fascia reduction***

80. In Bury St Edmunds there are two cinemas:
- (a) Picturehouse operates the Abbeygate Picturehouse cinema in Bury St Edmunds.
  - (b) Cineworld operates a multiplex cinema in Bury St Edmunds.
81. In addition to these cinemas in Bury St Edmunds, there are independent cinemas in Stowmarket (Regal cinema, around 20 minutes away) and Sudbury (Quay Cinema, around 30 minutes away).

TABLE 15 **Bury St Edmunds: competitive landscape**

Operator	Drive-time from Picturehouse (minutes)	Screens	Screens share %	Seats	Seats share %	GBOR £	GBOR share %	Adult standard ticket price £
Picturehouse Bury St Edmunds		2	18	186	10	[X]	[10–20]	9.50
Cineworld Bury St Edmunds	3.3	8	73	1,472	78	[X]	[80–90]	9.50
<b>Post-merger</b>		<b>10</b>	<b>91</b>	<b>1,658</b>	<b>88</b>	[X]	<b>[90–100]</b>	
Regal Theatre Stowmarket	19.7	1	9	234	12	[X]	[0–10]	7.25*
Quay Sudbury	29.3							5.00†

Source: Data on screens and seats taken from the [parties' initial submission](#), GBOR taken from Rentrak, drive-times from MapInfo.

\*[www.regalstowmarket.co.uk/](http://www.regalstowmarket.co.uk/).

†[www.quaytheatre.org.uk/whatsOn.htm](http://www.quaytheatre.org.uk/whatsOn.htm).

82. For the merging parties' two cinemas, the merger would lead to a two to one reduction in fascia count based on 20- and 30-minute isochrones.

### *Parties' evidence*

83. Picturehouse told us that it [X]. However, it did say that [X].
84. The parties' first survey asked Picturehouse Bury St Edmunds customers what they would have done if the Picturehouse had been unavailable. Of the [70–80] per cent of customers who said that they would visit an alternative cinema, [90–100] per cent said they would visit Cineworld and [5–10] per cent said Vue.
85. The parties told us that in 2012, Picturehouse Bury St Edmunds showed a total of [X] individual films/arts performances on its two screens while Cineworld Bury St Edmunds showed [X] films on eight screens. Out of the [X] individual films and arts performances shown at Picturehouse Bury St Edmunds in 2012, only [10–20] per cent were shown at Cineworld Bury St Edmunds.<sup>23</sup>

<sup>23</sup> [Initial submission](#), p50.

86. The parties submitted evidence which first defined the geographic market around each of the merging parties' cinemas as the area capturing 80 per cent of the cinema's customers and then assessed competition by recentering the isochrones around customers. The results of this analysis for Bury St Edmunds showed that the merger would lead to a fascia reduction from three to two based on Filters 1 and 4 to three based on Filter 2.<sup>24</sup> The parties provided an updated analysis based on 30-minute catchment areas. The results for this showed that for Bury St Edmunds the reduction in fascias was three to two based on Filter 1 and four to three based on Filter 2.
87. The parties' 80 per cent catchment isochrones for Bury St Edmunds resulted in a 35-minute drive-time for the Picturehouse Bury St Edmunds cinema and 33 minutes for Cineworld Bury St Edmunds.

### *Survey evidence*

88. Our survey asked customers how long they had travelled to get to the cinema. The results are summarized in Table 16.

TABLE 16 **Bury St Edmunds: survey responses on travel times**

	<i>per cent</i>	
	<i>Cineworld Bury St Edmunds</i>	<i>Picturehouse Bury St Edmunds</i>
Less than 10 minutes	[X]	[X]
11–20 minutes	[X]	[X]
21–30 minutes	[X]	[X]
31–40 minutes	[X]	[X]
41–50 minutes	[X]	[X]
51–60 minutes	[X]	[X]
More than an hour	[X]	*
Don't know/can't remember	*	-

*Source:* CC survey.

<sup>24</sup> Filter 2 includes a wider range of cinemas in the fascia count.



## Revenue overlap analysis

89. The parties' revenue overlap analysis is summarized in Table 17.

TABLE 17 **Bury St Edmunds: revenue, film and viewings overlap**

	<i>per cent</i>	
	<i>Cineworld Bury St Edmunds</i>	<i>Picturehouse Bury St Edmunds</i>
% of overlapping box office	[X]	[X]
% of overlapping films	[X]	[X]
% of overlapping viewings	[X]	[X]

Source: The parties.

90. We carried out our own revenue overlap analysis of the cinemas in Bury St Edmunds and the results are shown in Table 18.

TABLE 18 **Bury St Edmunds: revenue overlap**

	<i>per cent</i>		
	(1)	(2)	(3)
Bury St Edmunds—Picturehouse	(1) [X]	[X]	[X]
Bury St Edmunds—Cineworld	(2) [X]	[X]	[X]
Stowmarket—Regal Theatre	(3) [X]	[X]	[X]

Source: Rentrak.

91. [50–60] per cent of revenues for Picturehouse Bury St Edmunds overlap with that of Cineworld Bury St Edmunds and it is [20–30] per cent the other way around.

## Historic visits

92. The figures in Table 19 suggest that few Cineworld or Picturehouse customers visited the Regal Theatre in Stowmarket, with only [0–5] per cent of Picturehouse Bury St Edmunds visits from customers who had visited the Regal Theatre in the last six months.

TABLE 19 **Bury St Edmunds: customer overlaps by historic visits—weighted by visit**

		<i>per cent</i>							
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<b>Bury St Edmunds—Picturehouse</b>	<b>(1)</b>	<b>100</b>	[X]	[X]	[X]	[X]	[X]	[X]	[X]
<b>Bury St Edmunds—Cineworld</b>	<b>(2)</b>	[X]	<b>100</b>	[X]	[X]	[X]	[X]	[X]	[X]
Cambridge—Arts Picturehouse	(3)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cambridge—Cineworld	(4)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cambridge—Vue	(5)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ipswich—Cineworld	(6)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Braintree—Cineworld	(7)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Haverhill—Cineworld	(8)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Source: CC survey.

*Notes:*

1. Cinemas have been excluded from the list if no overlaps of over 5 per cent were recorded. The Regal Theatre, Stowmarket, only had [0–5] per cent overlap with Picturehouse, [0–5] per cent with Cineworld.

2. N/A = not available.

### *GUPPI analysis*

93. The estimated diversion ratios and GUPPIs for Picturehouse Bury St Edmunds and Cineworld Bury St Edmunds are given in Table 20.

TABLE 20 **Bury St Edmunds: GUPPI calculations**

	<i>Picturehouse Bury St Edmunds</i>		<i>Cineworld Bury St Edmunds</i>	
	<i>Lowest diversion</i>	<i>Highest diversion</i>	<i>Lowest diversion</i>	<i>Highest diversion</i>
Diversion ratio	[X]	[X]	[X]	[X]
GUPPI estimate	32	32	6	6

Source: Diversion ratios are from CC survey evidence and margin data is from the parties.

94. The OFT's GUPPI estimate for the Bury St Edmunds Picturehouse was 14 per cent.<sup>25</sup>

### *Event analysis*

95. We conducted an event analysis on the opening of Picturehouse Bury St Edmunds. The results are in Table 21.

<sup>25</sup> OFT, [Completed acquisition by Cineworld plc of City Screen Limited](#), Table 3.

TABLE 21 **Bury St Edmunds: events analysis**

	<i>GBOR before</i>	<i>GBOR after</i>	<i>Percentage change</i>
Bury St Edmunds CW	[REDACTED]	[REDACTED]	10
No events control group	[REDACTED]	[REDACTED]	0
Correlation control group	[REDACTED]	[REDACTED]	0

Source: Rentrak.

96. The results suggest that Cineworld Bury St Edmunds revenues increased following the opening of Picturehouse Bury St Edmunds. One explanation could be that the Hollywood cinema which operated prior to the Picturehouse was a closer competitor to the Cineworld cinema than the current Picturehouse. Consistent with this, our analysis of the revenue overlap for the Hollywood cinema in the last 12 months of its operation showed that [30–40] per cent of the Cineworld’s revenues came from films which overlapped with the Hollywood cinema. This compares to a figure of [20–30] per cent of Cineworld’s revenues overlapping with the Picturehouse in the last 12 months.

### *Third parties’ evidence*

97. Curzon provided estimates of the revenue overlap for Cineworld and Picturehouse cinemas in Bury St Edmunds. Its estimate for the Picturehouse was based on a comparison of the films shown between 1 January 2013 and 23 May 2013 and films were considered to be overlapping if they were shown at the Cineworld and Picturehouse within this five-month period. Curzon’s analysis showed that 65 per cent of the Abbeygate Picturehouse’s revenues came from films shown by Cineworld.

### *New entry*

98. No parties have raised any barriers to entry specific to Bury St Edmunds.

99. The parties told us that Odeon was reported to be in discussions in relation to a five-screen cinema in Newmarket.
100. Odeon told us planning permission had been sought two months ago in Newmarket and had been refused. The plans had included an out-of-town super-cinema, restaurants, retail units and a Sainsbury's supermarket. Odeon believed that planning approval had been refused due to the supermarket aspect of the plans. Approval had already been given to a Tesco extension and a new Morrison's supermarket in the town, and there were concerns about the effect of the Sainsbury's development on the town centre. Odeon told us that it remained interested in developing a cinema in the area. The developer was considering appealing the planning decision and believed it might still be possible to develop the new cinema at some stage if the new supermarkets that had received planning permission (Tesco and Morrison's) did not go ahead. However, it said that there was little likelihood of a new cinema deal being completed in the next two to three years, or constructed in the next five.
101. The parties told us that planning permission had been granted for a new three-screen cinema in Thetford.<sup>26</sup> Odeon told us that it was aware of the cinema opportunity, but was not involved or interested as the proposal was too small for its type of operation.
102. Vue told us that it was not interested in the site in Newmarket or Thetford.
103. Picturehouse's cinema in Bury St Edmunds generated EBITDA of £[redacted] on revenues of £[redacted] ([redacted] per cent margin) in 2012. [redacted] However, St Edmundsbury Borough Council told us that [redacted].

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<sup>26</sup> The project is a joint venture between Breckland District and Norfolk County Councils. At this stage it is not clear who will operate the cinema.

104. Cineworld told the OFT that the Picturehouse Bury St Edmunds site was previously occupied by the Hollywood cinema and prior to that Odeon, both of which had failed.

## Cambridge

105. In this section, we describe evidence we have reviewed relating to the competitive effects of the merger in Cambridge. A map of the cinemas in this local area is given in Annex 4.

### Competition in Cambridge and fascia reduction

106. In Cambridge there are three cinemas:
- (a) Picturehouse operates the Cambridge Arts cinema.
  - (b) Cineworld operates a multiplex in the south-east of Cambridge.
  - (c) Vue operates a multiplex in the Grafton Shopping Centre.

TABLE 22 Cambridge: competitive landscape

Cinema	Drive-time from Picturehouse (minutes)	Screens	Screens share %	Seats	Seats share %	GBOR £	GBOR share %	Adult standard ticket price £
Picturehouse Cambridge		3	15	505	13	[X]	[10–20]	9.50
Cineworld Cambridge	4.4	9	45	1,700	42	[X]	[50–60]	9.40
<b>Post-merger</b>		<b>12</b>	<b>60</b>	<b>2,205</b>	<b>55</b>	[X]	<b>[60–70]</b>	
Vue Cambridge	3.4	8	40	1,821	45	[X]	[30–40]	9.40

Source: Data on screens and seats taken from the [parties' initial submission](#), GBOR taken from Rentrak, drive-times from MapInfo.

107. The merger would lead to a three to two reduction in fascia count based on 20- and 30-minute isochrones.

### Parties' evidence

108. Cineworld told us that its market share analysis in Cambridge did include Picturehouse Cambridge.

109. The parties' survey asked Picturehouse Cambridge customers what they would have done if the Picturehouse had been unavailable. Of the [80–90] per cent of customers who said that they would visit an alternative cinema, [70–80] per cent said they would visit Cineworld and [50–60] per cent said Vue.

110. Picturehouse said it [X]. The parties told us:

Programming at the Arts Picturehouse is almost entirely different to that of Cineworld Cambridge such that these two cinemas cannot be considered to be close competitors. Over the past three years [70–80] per cent of films shown at the Arts Picturehouse have not been screened at another cinema in the area. It has shown on average [X] of the UK's annual top 20 films over the past three years. In contrast, Cineworld Cambridge has shown [X] of the UK's annual top 20 films for each of the past three years.

In 2012, Arts Picturehouse showed a total of [X] individual films/arts performances on its 3 screens while the Cineworld Cambridge showed [X] films on 9 screens. Out of the [X] individual films and arts performances shown at the Arts Picturehouse in 2012, [5–10] per cent were shown at the Cineworld Cambridge.

The differentiated programming is valued highly by customers of the Arts Picturehouse: [70–80] per cent of survey respondents to the First Survey selected the ability to view a range of art-house/ independent films and screen arts events as one of the top three factors influencing their decision to visit the Arts Picturehouse.<sup>27</sup>

111. The parties submitted evidence which first defined the geographic market around each of the merging parties' cinemas as the area capturing 80 per cent of the

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<sup>27</sup> Initial submission, paragraphs 3.27–3.29.

cinema's customers and then assessed competition by recentering the isochrones around customers. The results of this analysis for Cambridge showed that the merger would lead to a fascia reduction from five to four or more for Picturehouse and four to three for Cineworld, irrespective of the filter used.

112. The parties' 80 per cent catchment isochrones for Cambridge resulted in a 60-minute drive-time for Picturehouse Cambridge and 31 minutes for Cineworld Cambridge.
113. The parties provided an updated analysis based on 30-minute catchment areas. The results for this showed that for Cambridge the reduction in fascias was four to three, irrespective of the filter used.
114. The parties' survey asked customers how long the journey from their home to the cinema took and this showed that 81 per cent of customers had travelled for 30 minutes or less.
115. We had some concerns regarding the use of transaction data in the Cambridge customer recentering analysis. This was primarily because students in Cambridge may have a billing address which is different from their living address. Consistent with this, we noted that the 80 per cent isochrone for Picturehouse Cambridge of 60 minutes was not consistent by both the Parties' Survey evidence and the CC Survey. The Parties' Survey showed that [80–90] per cent of customers travelled less than 30 minutes. The CC Survey results in Table 23 show that [80–90] per cent of visits were by customers living within 30 minutes.
116. Picturehouse told us that [10–20] per cent of all ticket sales, by volume, were tickets sold at the student discount and [70–80] per cent of student tickets sold were purchased by credit or debit cards. We suspected that the billing/living address issue

was having a substantial effect on the 60-minute isochrone. This was because if 10 per cent of billing addresses differed from living addresses this essentially means the parties' analysis was taking 10 per cent of addresses from the local Cambridge area and moving them to areas outside an 80 per cent isochrone. In this scenario the parties' 80 per cent isochrone would actually be a 90 per cent isochrone for the real customer locations.

117. Further, a related possible secondary issue in Cambridge could arise if a significant proportion of the visitors to the Picturehouse are tourists. In this situation, again, billing addresses are likely to widen the isochrone.

*Survey evidence*

118. Our survey asked customers how long they had travelled to get to the cinema. The results are summarized in Table 23.

TABLE 23 Cambridge: survey responses on travel times

	<i>per cent</i>	
	<i>Cineworld Cambridge</i>	<i>Picturehouse Cambridge</i>
Less than 10 minutes	[X]	[X]
11–20 minutes	[X]	[X]
21–30 minutes	[X]	[X]
31–40 minutes	[X]	[X]
41–50 minutes	[X]	[X]
51–60 minutes	[X]	[X]
More than an hour	*	[X]
Don't know/can't remember	*	*

Source: CC Survey.

*Revenue overlap analysis*

119. The parties' revenue overlap analysis is summarized in Table 24.



TABLE 24 Cambridge: revenue, film and viewings overlap

	<i>per cent</i>	
	<i>Cineworld Cambridge</i>	<i>Picturehouse Cambridge</i>
% of overlapping box office	[X]	[X]
% of overlapping films	[X]	[X]
% of overlapping viewings	[X]	[X]

Source: The parties.

120. We carried out our own revenue overlap analysis of the cinemas in Cambridge and the results are shown in Table 25.

TABLE 25 Cambridge: revenue overlap

		<i>per cent</i>		
		(1)	(2)	(3)
Picturehouse Cambridge	(1)	[X]	[X]	[X]
Cineworld Cambridge	(2)	[X]	[X]	[X]
Vue Cambridge	(3)	[X]	[X]	[X]

Source: Rentrak.

121. [50–60] per cent of Picturehouse Cambridge's revenues overlap with that of Cineworld Cambridge and it is [30–40] per cent the other way around. For Picturehouse Cambridge, the overlap with Cineworld Cambridge is higher than its overlap with Vue Cambridge ([40–50] per cent).

### *Historic visits*

122. The figures for Cambridge are in Table 26. The highest overlap for Picturehouse Cambridge is [30–40] per cent with the Cineworld Cambridge. The highest overlap for Cineworld Cambridge is with Vue Cambridge.

TABLE 26 Cambridge: customer overlaps—weighted by visit

		<i>per cent</i>		
		(1)	(2)	(3)
Picturehouse Cambridge	(1)	100	[X]	[X]
Cineworld Cambridge	(2)	[X]	100	[X]
Vue Cambridge	(3)	N/A	N/A	N/A

Source: CC survey.

Note: N/A = not available.

## GUPPI analysis

123. The estimated diversion ratios and GUPPIs for Picturehouse Cambridge and Cineworld Cambridge are given in Table 27.

TABLE 27 Cambridge: GUPPI calculations

	<i>Picturehouse Cambridge</i>		<i>Cineworld Cambridge</i>	
	<i>Lowest diversion</i>	<i>Highest diversion</i>	<i>Lowest diversion</i>	<i>Highest diversion</i>
Diversion ratio	[X]	[X]	[X]	[X]
GUPPI estimate	13	15	5	6

Source: Diversion ratios are from CC survey evidence and margin data is from the parties.

124. The OFT's GUPPI estimate for the Cambridge Picturehouse was 10 per cent.<sup>28</sup>

## Event analysis

125. We conducted an event analysis based on the opening of Cineworld Cambridge in May 2004 to investigate the extent of competition between Cineworld Cambridge and Picturehouse Cambridge. To do this we compared the change in revenue for Picturehouse Cambridge in the 12 months after Cineworld Cambridge opened in May 2004 with the change in revenue for a Picturehouse control group.<sup>29</sup> The results are in Table 28 and suggest that the entry had a negative impact on Picturehouse Cambridge revenues.

<sup>28</sup> OFT, [Completed acquisition by Cineworld plc of City Screen Limited](#), Table 3.

<sup>29</sup> The Picturehouse control group consisted of the five cinemas that had the highest revenue correlation with Picturehouse Cambridge in the 12 months prior to the entry. We did not have a full list of entry and exit data going back to 2004 so could not establish a control group of Picturehouse cinemas which had not seen entry in the years before 2004.

TABLE 28 Cambridge event analysis

	Average monthly GBOR in 12 months before	Average monthly GBOR in 12 months after	% change
Cambridge PH	[REDACTED]	[REDACTED]	-19
Correlation Control	[REDACTED]	[REDACTED]	5

Source: Rentrak data.

### *Third parties' evidence*

126. A letter from Cambridge City Council said that:

The Arts Picturehouse and Cineworld operate in very different markets in Cambridge and both have an important role to play in the respective arts and leisure facilities of the city. This continues to be proven by the continuing strong and diverse programme of films and events shown at the Picturehouse.<sup>30</sup>

127. Curzon provided estimates of the revenue overlap for Cineworld and Picturehouse cinemas in Cambridge. Its estimate for the Picturehouse was based on a comparison of the films shown between 1 January 2013 and 23 May 2013 and films were considered to be overlapping if they were shown at the Cineworld and Picturehouse within this five-month period. Curzon's analysis showed that 61 per cent of the Cambridge Arts Picturehouse's revenues came from films shown by Cineworld.

128. Vue told us that [REDACTED].

129. Vue's [REDACTED].

<sup>30</sup> [www.competition-commission.org.uk/assets/competitioncommission/docs/2013/cineworld-city-screen/cambridge\\_city\\_council.pdf](http://www.competition-commission.org.uk/assets/competitioncommission/docs/2013/cineworld-city-screen/cambridge_city_council.pdf).

### *New entry*

130. The parties told us that discussions were under way to convert a former cinema in Hobson Street in the centre of Cambridge (currently housing a bingo hall) into a new cinema. The asset manager of the site told us that an experienced local agent had been brought in to try to market/gauge interest in the site. It had been given a broad brief and interest had been received from other clubs, restaurants, gyms, pubs and two cinema operators. [X] The developer said that it was difficult to predict what would be commercially successful and who would ultimately take over the lease.
131. Cambridge City Council Planning Department told us that the council had just published the Cambridge Retail and Leisure Study and updated the Local Plan, neither of which mentioned any plans to develop new cinemas in Cambridge. It told us that it would not be more difficult to gain approval to build/develop a new cinema in the area because cinemas had not been mentioned in the plan. The possibility of a new cinema being developed could not be ruled out, but it was not aware of any intelligence indicating that anyone wanted to do this. However, if a cinema were to be proposed, the council would consider it positively. It told us that it was unaware of any cinema developments in Cambridge. The nearest new cinema development that it was aware of was for a five-screen cinema in St Neots, Huntingdon.
132. South Cambridgeshire District Council told us that it was not aware of any plans to develop cinemas in south Cambridgeshire and there were no sites allocated for cinemas in its development plan.

## Clapham (London)

133. In this section, we describe evidence we have reviewed relating to the competitive effects of the merger in Clapham. A map of the cinemas in this local area is given in Annex 4.

### Competition in Clapham and fascia reduction

134. In Clapham, Picturehouse operates the Clapham Picturehouse. In the area surrounding this cinema there are a number of cinemas, including the following:

- (a) Cineworld operates multiplexes in Chelsea, Fulham Road and Wandsworth.
- (b) Curzon operates a cinema in Chelsea.
- (c) Odeon operates multiplexes in Streatham.
- (d) Vue operates a multiplex in Fulham Broadway.
- (e) Picturehouse also operates a cinema in Brixton—the Ritzy.

TABLE 1 Clapham: competitive landscape

Operator	Travel time	Screens	Seats	GBOR £	Adult standard ticket price £
Picturehouse Clapham		4	572	[X]	11.50
Cineworld Wandsworth	9.6 mins car, 25 mins bus	14	2,724	[X]	10.30
Cineworld Chelsea	10.4 mins car, 34 mins bus	4	687	[X]	11.80
Cineworld Fulham Road	10.8 mins car, 33 mins bus	6	1,422	[X]	11.80
Odeon Streatham	9.8 mins car, 23 mins bus	8	1,356	[X]	9.95
Curzon Chelsea	9.6 mins car, 31 mins bus	1	713	[X]	13.75
Vue Fulham Broadway	13.6 mins car, 41 mins bus/tube	9	2,252	[X]	11.05
Brixton Picturehouse	6 mins car	5	793	[X]	10.50

Source: Data on screens and seats taken from the OFT, GBOR taken from Rentrak, drive-times from MapInfo.

135. For Picturehouse Clapham, the merger would leave six or more fascias following the merger based on both a 20- and 30-minute isochrone. The same would be true for the Cineworld Chelsea, Fulham Road and Wandsworth cinemas.

### *Parties' evidence*

136. The parties told us that in London the offer of the Curzon cinemas was similar to the offer of Picturehouse's London cinemas.<sup>31</sup>
137. The parties' first survey asked Clapham Picturehouse customers what they would have done if the Picturehouse had been unavailable. Of the [90–100] per cent of customers who said that they would visit an alternative cinema, [40–50] per cent said they would visit Odeon, [40–50] per cent said Cineworld, [30–40] per cent Curzon and [20–30] per cent Vue.
138. A survey carried out by Picturehouse showed that a significant proportion of customers to its Clapham, Ritzy and Greenwich cinemas travelled on foot ([40–50] per cent) and by bus ([20–30] per cent).
139. The parties submitted evidence which first defined the geographic market around each of the merging parties' cinemas as the area capturing 80 per cent of the cinema's customers and then assessed competition by recentering the isochrones around customers. The results of this analysis for Clapham showed that the 80 per cent catchment was a travel time of 64 minutes and that the merger would lead to a fascia reduction from five to four or more for both Picturehouse Clapham and Cineworld Wandsworth, irrespective of the filter used or whether the analysis was weighted by population or transactions. The parties provided an updated analysis based on 20-minute catchment areas. The results for this showed that for Clapham the reduction in fascias was five to four or more, irrespective of the filter used.

### *Revenue overlap analysis*

140. The parties' revenue overlap analysis is summarized in Table 30.

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<sup>31</sup> [Initial submission](#), paragraphs 8.7–8.8.

TABLE 2 Clapham: revenue, films and viewings overlap

									<i>per cent</i>	
	<i>Cineworld Wandsworth</i>	<i>Clapham Picturehouse</i>	<i>Cineworld Haymarket</i>	<i>Clapham Picturehouse</i>	<i>Cineworld Shaftesbury Avenue</i>	<i>Clapham Picturehouse</i>	<i>Cineworld Fulham Road</i>	<i>Clapham Picturehouse</i>	<i>Cineworld Chelsea</i>	<i>Clapham Picturehouse</i>
% of overlapping box office	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
% of overlapping films	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
% of overlapping viewings	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]

Source: The parties.

141. We carried out our own revenue overlap analysis of the cinemas in the area and the results are given in Table 31.

TABLE 3 Clapham: revenue overlaps

		<i>per cent</i>												
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Bermondsey—Shortwave Cinema	(1)	100	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Brixton—Ritzy Picturehouse	(2)	[X]	100	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Chelsea—Cineworld	(3)	[X]	[X]	100	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Chelsea—Curzon	(4)	[X]	[X]	[X]	100	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Clapham—Picturehouse	(5)	[X]	[X]	[X]	[X]	100	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Fulham Broadway—Vue	(6)	[X]	[X]	[X]	[X]	[X]	100	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Haymarket—Cineworld	(7)	[X]	[X]	[X]	[X]	[X]	[X]	100	[X]	[X]	[X]	[X]	[X]	[X]
Peckham—PeckhamPlex	(8)	[X]	[X]	[X]	[X]	[X]	[X]	[X]	100	[X]	[X]	[X]	[X]	[X]
South Bank—BFI	(9)	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	100	[X]	[X]	[X]	[X]
Southbank—BFI IMAX	(10)	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	100	[X]	[X]	[X]
Streatham—Odeon	(11)	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	100	[X]	[X]
The Mall—ICA Cinema	(12)	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	100	[X]
Wandsworth—Cineworld	(13)	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	100

Source: Rentrak.

142. [50–60] per cent of Clapham Picturehouse’s revenues overlap with the Chelsea Cineworld, [20–30] per cent with the Haymarket Cineworld and [80–90] per cent with the Wandsworth Cineworld.

### Historic visits

143. The highest overlap for Picturehouse Clapham is [40–50] per cent with Picturehouse Brixton. The highest overlap for Cineworld Chelsea is with Curzon Chelsea at [40–50] per cent. The highest overlap for the Cineworld Fulham Road is [70–80] per cent with Cineworld Chelsea. The highest overlap figure for the Cineworld Wandsworth is [10–20] per cent with Picturehouse Clapham. The figures suggest that [10–20] per cent of visits to Picturehouse Clapham are from customers who have visited Cineworld Wandsworth in the last six months.



TABLE 4 Clapham: customer overlaps by historic visits—weighted by visit

		per cent													
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Brixton—Ritz Picturehouse	(1)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chelsea—Cineworld	(2)	[X]	100	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Chelsea—Curzon	(3)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Clapham—Picturehouse	(4)	[X]	[X]	[X]	100	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Fulham Broadway—Vue	(5)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Fulham Road—Cineworld	(6)	[X]	[X]	[X]	[X]	[X]	100	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Haymarket—Cineworld	(7)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
South Bank—BFI	(8)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Wandsworth—Cineworld	(9)	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	100	[X]	[X]	[X]	[X]	[X]
Kensington—Odeon	(10)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Shepherd's Bush – Vue	(11)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Southbank – BFI IMAX	(12)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Wimbledon – HMV Curzon	(13)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Putney—Odeon	(14)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Source: CC survey.

#### Notes:

1. Cinemas have been excluded from the list if no overlaps of over 10 per cent were recorded.
2. N/A = not available.

## GUPPI analysis

144. The estimated diversion ratios and GUPPIs for Picturehouse Clapham, Cineworld Chelsea, Cineworld Fulham Road and Cineworld Wandsworth are in Table 33.

TABLE 5 Clapham: GUPPI calculations

	Picturehouse Clapham		Cineworld Chelsea		Cineworld Fulham Road		Cineworld Wandsworth	
	Lowest diversion	Highest diversion	Lowest diversion	Highest diversion	Lowest diversion	Highest diversion	Lowest diversion	Highest diversion
Diversion ratio	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
GUPPI estimate	13	14	0	0	0	0	3	4

Source: Diversion ratios are from CC survey evidence and margin data is from the parties.

145. The OFT's GUPPI estimate for Picturehouse Clapham was 5 per cent.<sup>32</sup>

## Diversion analysis

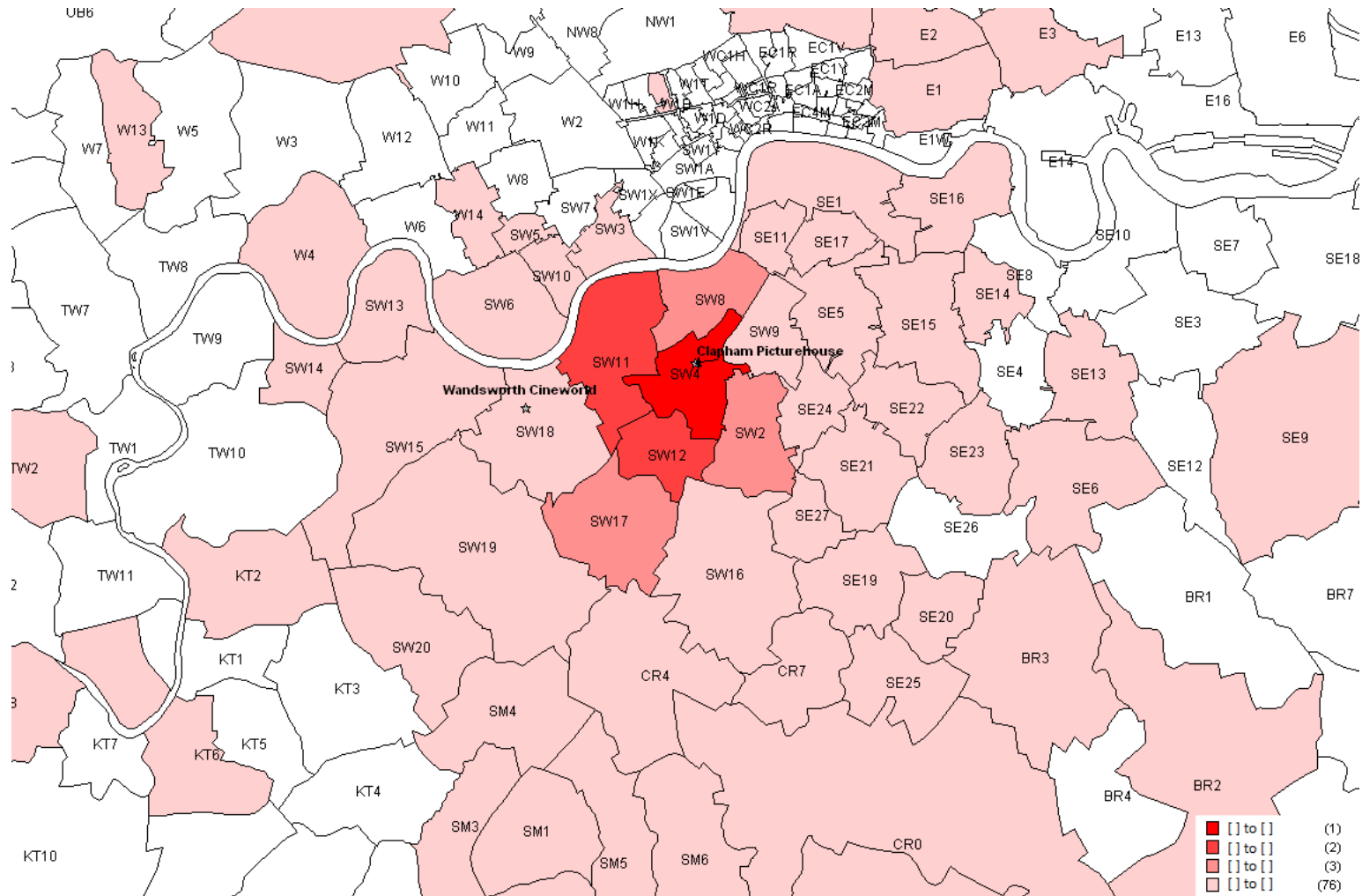
146. Our survey results suggested high diversion ratios from Picturehouse Clapham to Cineworld Wandsworth. We investigated this further by looking at how this and other factors varied according to the postcode of the respondent. Figure 5 shows the

<sup>32</sup> OFT, [Completed acquisition by Cineworld plc of City Screen Limited](#), Table 3.

postcodes around Clapham. Those postcodes which represent the highest proportion of admissions are: SW4, SW11, SW12 and SW17.

FIGURE 5

**Picturehouse Clapham admissions by postcode**



Source: CC survey.

147. Table 34 shows further results from our survey for these four postcodes. The figure of [20–30] per cent in the first column means that [20–30] per cent of admissions to Picturehouse Clapham came from SW4. The [10–20] per cent in the second column means that of all the admissions to Picturehouse Clapham from SW4, [10–20] per cent were by people that had also visited Cineworld Wandsworth in the past six months. The [10–20] per cent in the third column means that [10–20] per cent of admissions from SW4 were from people who named Cineworld Wandsworth explicitly as the cinema they would divert to.<sup>33</sup>

TABLE 6 **Clapham: postcode analysis**

	<i>% of admissions from postcode</i>	<i>% visited Cineworld Wandsworth</i>	<i>% diverted to Cineworld Wandsworth</i>
SW4	[X]	[X]	[X]
SW12	[X]	[X]	[X]
SW11	[X]	[X]	[X]
SW17	[X]	[X]	[X]

Source: CC survey.

148. We carried out similar analysis for Cineworld Wandsworth. Figure 6 shows the postcodes around Cineworld Wandsworth. Those postcodes which represent the highest proportion of admissions are: SW18, SW11 and SW15.

<sup>33</sup> This figures does not include an allocation of don't knows, so should not be interpreted as a diversion ratio.

### Cineworld Wandsworth admissions by postcode



149. Table 35 presents the analysis of the postcode areas.

TABLE 7 **Clapham: postcode analysis**

	<i>% of admissions from postcode</i>	<i>% visited Picturehouse Clapham</i>	<i>% diverted to Picturehouse Clapham</i>
SW18	[REDACTED]	[REDACTED]	[REDACTED]
SW11	[REDACTED]	[REDACTED]	[REDACTED]
SW15	[REDACTED]	[REDACTED]	[REDACTED]
SW17	[REDACTED]	[REDACTED]	[REDACTED]
SW12	[REDACTED]	[REDACTED]	[REDACTED]

Source: CC survey.

## Event analysis

150. We conducted an event analysis based on the opening of Cineworld Wandsworth in May 2004 to help investigate the extent of competition between Cineworld Wandsworth and Picturehouse Clapham. To do this we compared the change in revenue for Picturehouse Clapham in the 12 months after Cineworld Wandsworth opened with the change in revenue for a Picturehouse control group.<sup>34</sup> The results are in Table 36 and suggest that the entry did not negatively impact the revenues of Picturehouse Clapham.

TABLE 8 **Wandsworth Cineworld event analysis**

	<i>Average monthly GBOR in 12 months before</i>	<i>Average monthly GBOR in 12 months after</i>	<i>% change</i>
Clapham PH	[REDACTED]	[REDACTED]	0
Correlation control	[REDACTED]	[REDACTED]	-6

Source: Rentrak data.

151. However, the parties told us that the Wandsworth Cinema ‘took longer to establish itself compared to other cinemas’ and:

When the cinema first opened, many of the shopping centre’s units were taken by lower grade retailers and pound shops. The opening of

<sup>34</sup> The Picturehouse control group consisted of the five cinemas that had the highest revenue correlation with Picturehouse Clapham in the 12 months prior to the entry. We did not have a full list of entry and exit data going back to 2004 so could not establish a control group of Picturehouse cinemas which had not seen entry in the years before 2004.

the cinema was hindered by poor external signage and promotion and it took a few years for the cinema to establish public awareness.

Problems with the ceilings in the auditoria also caused screens to be closed for long periods of time which impacted on the cinema's profitability during the early years.

152. This potentially dilutes the importance of this event analysis.

153. We investigated the opening of Cineworld Wandsworth by comparing the GBOR per seat for this cinema in its first two years with that of two control groups in their first two years of existence.<sup>35</sup> We then split these two years into four six-month periods to see how the figures changed over the two years. The results are given in Table 37.

TABLE 37 Wandsworth GBOR per seat analysis

	<i>GBOR per seat per six-month period</i>			
	<i>1<sup>st</sup> 6 months</i>	<i>2<sup>nd</sup> 6 months</i>	<i>3<sup>rd</sup> 6 months</i>	<i>4<sup>th</sup> 6 months</i>
Wandsworth	[X]	[X]	[X]	[X]
Control Group 1	[X]	[X]	[X]	[X]
Control Group 2	[X]	[X]	[X]	[X]
				<i>% difference</i>
Control Group 1	[X]	[X]	[X]	[X]
Control Group 2	[X]	[X]	[X]	[X]

Source: Rentrak data.

154. The results show two main things:

- (a) Cineworld Wandsworth's GBOR per seat begins lower than both the control groups' and stays lower over the two years; and
- (b) the difference between Cineworld Wandsworth's GBOR per seat and the control groups' decreases over the two years.

<sup>35</sup> The first control group consisted of the seven Cineworlds that opened within one and a half years of the Wandsworth Cineworld opening; the second control group consisted of all Cineworlds except the Wandsworth Cineworld.

155. Both of these results are consistent with the view that Cineworld Wandsworth took longer to establish itself than most new Cineworlds do.

*Third parties' evidence*

156. The BFI told us that although BFI Southbank was a venue that sold tickets to the public to watch films, it was not really a competitive venue in terms of the nature of its programming. The BFI provided survey evidence which showed which cinemas its members tended to visit. The survey showed that Picturehouse was seventh, with 35 per cent of its members visiting Picturehouse cinemas. In front of Picturehouse were Odeon (65 per cent), Curzon (61 per cent), Vue (55 per cent), Barbican (40 per cent), Cineworld (39 per cent) and Renoir (36 per cent).
157. Curzon told us that Picturehouse Clapham was a local cinema and drew its customers from the Clapham area. Curzon provided estimates of the revenue overlap for Cineworld Wandsworth and Picturehouse Clapham. Its estimate for Picturehouse Clapham was based on a comparison of the films shown between 1 January 2013 and 23 May 2013 and films were considered to be overlapping if they were shown at the Cineworld and Picturehouse within this five-month period. Curzon's analysis showed that 97 per cent of Picturehouse Clapham's revenues came from films shown by Cineworld Wandsworth.
158. Empire [✂].
159. The ICA told us that it monitored the performance of Picturehouse Clapham.
160. Odeon's market shares monitoring in south London included Picturehouse Clapham.



### ***New entry***

161. No parties have raised any barriers to entry specific to Clapham.
162. Curzon told us that it was aiming to open a five-screen cinema in Central London [X]. Outline planning permission had been obtained and submission of the full plans was expected in the next four to six weeks. Curzon was not aware of any opposition to the cinema. The cinema was expected to open in January 2014.

### ***Edinburgh***

163. In this section, we describe evidence we have reviewed relating to the competitive effects of the merger in Edinburgh. A map of the cinemas in this local area is given in Annex 4.

### ***Competition in Edinburgh and fascia reduction***

164. Picturehouse operates the Cameo cinema in Edinburgh. In the surrounding area there are a number of cinemas, including the following:
- (a) Cineworld operates a multiplex cinema which is located close to the Picturehouse.
  - (b) The Dominion cinema is an independent cinema with four screens.
  - (c) The Filmhouse Edinburgh is a three-screen independent cinema showing pre-dominantly first run commercial art-house and foreign language cinema, and also archive, festivals and themed seasons.
  - (d) Odeon operates a multiplex which is located close to the Picturehouse cinema.
  - (e) Vue operates two multiplexes.

TABLE 9 **Edinburgh: competitive landscape**

Operator	Drive-time from Picturehouse (minutes)	Screens	Screens share %	Seats	GBOR £	GBOR share %	Adult standard ticket price £
Picturehouse		3	6	394	[£]	[0–10]	7.80
Cineworld Edinburgh	2.0	13	25	3,003	[£]	[30–40]	9.10
<b>Post-merger</b>		<b>16</b>	<b>31</b>		<b>[£]</b>	<b>[30–40]</b>	
Odeon Lothian Road	1.1	4	8	721	[£]	[0–10]	9.20
Filmhouse	2.0	3	6		[£]	[0–10]	7.50
Dominion	3.8	4	8	574	[£]	[0–10]	10.95
Vue Omni	5.9	12	24	2,178	[£]	[20–30]	8.80
Vue Ocean	12.8	12	24	2,602	[£]	[20–30]	8.80

Source: Data on screens taken from the OFT, GBOR from Rentrak, drive-times from MapInfo.

165. For both the Picturehouse and Cineworld cinemas, the merger would lead to a four to three reduction in fascias if the independent cinemas are excluded from the analysis, based on both a 20- and 30-minute isochrone.

### *Parties' evidence*

166. The parties told us that the offer of the Edinburgh Filmhouse was similar to the offer of Picturehouse's Cameo cinema in Edinburgh.

167. Picturehouse told us that 'Competition does exist in Edinburgh, where the publicly-funded Edinburgh Filmhouse is located very close to the Cameo Picturehouse'. Picturehouse told us that 'decisions about whether the Edinburgh Filmhouse or the Cameo Picturehouse shows a particular film are part of the weekly negotiations with distributors'. Picturehouse told us that the Centre for the Moving Image, as a publicly funded body, had greater financial resources to underpin its programming and marketing.<sup>36</sup> This meant that it could play a wider range of art-house films as it did not have to cover its running costs through ticket pricing, which might artificially depress its ticket prices.

<sup>36</sup> The Centre for the Moving Image was formed by the merger of the Edinburgh Film Festival and the Filmhouse in July 2010.

## Revenue overlap analysis

168. The parties did not carry out a revenue overlap analysis for Edinburgh.

169. We carried out our own revenue overlap analysis of the cinemas in Edinburgh and the results are in Table 39.

TABLE 10 **Edinburgh: revenue overlaps**

		<i>per cent</i>							
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dominion Cinema	(1)	100	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Filmhouse Cinema	(2)	[X]	100	[X]	[X]	[X]	[X]	[X]	[X]
Picturehouse Edinburgh	(3)	[X]	[X]	100	[X]	[X]	[X]	[X]	[X]
Cineworld Edinburgh	(4)	[X]	[X]	[X]	100	[X]	[X]	[X]	[X]
Odeon Edinburgh Wester Hailes	(5)	[X]	[X]	[X]	[X]	100	[X]	[X]	[X]
Vue Edinburgh—Omni Centre	(6)	[X]	[X]	[X]	[X]	[X]	100	[X]	[X]
Odeon Edinburgh—Lothian Road	(7)	[X]	[X]	[X]	[X]	[X]	[X]	100	[X]
Vue Edinburgh—Ocean Terminal	(8)	[X]	[X]	[X]	[X]	[X]	[X]	[X]	100

Source: Rentrak.

170. In Edinburgh, [50–60] per cent of The Cameo Picturehouse’s revenues overlap with the local Cineworld. This is higher than the Picturehouse’s overlap with any of the other nearby cinemas. Only [40–50] per cent of the Cineworld’s revenues overlap with the Picturehouse which is below the Lothian Road Odeon ([60–70] per cent).

## Historic visits

171. The figures for Edinburgh are in Table 40. The highest overlap for Picturehouse Edinburgh is [70–80] per cent with the Filmhouse. The highest overlap for Cineworld Edinburgh is with Vue Edinburgh—Omni Centre.

TABLE 11 **Edinburgh: customer overlaps by historic visits—weighted by visit**

		<i>per cent</i>							
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Edinburgh—Dominion	(1)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Edinburgh—Filmhouse	(2)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>Edinburgh—The Cameo</b>	<b>(3)</b>	[ <del>3</del> ]	[ <del>3</del> ]	<b>100</b>	[ <del>3</del> ]	[ <del>3</del> ]	[ <del>3</del> ]	[ <del>3</del> ]	[ <del>3</del> ]
<b>Edinburgh, Fountain Park—Cineworld</b>	<b>(4)</b>	[ <del>3</del> ]	[ <del>3</del> ]	[ <del>3</del> ]	<b>100</b>	[ <del>3</del> ]	[ <del>3</del> ]	[ <del>3</del> ]	[ <del>3</del> ]
Edinburgh Lothian Road—Odeon	(5)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Edinburgh Ocean Terminal—Vue	(6)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Edinburgh Omni Centre—Vue	(7)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Edinburgh Wester Hailes—Odeon	(8)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Source: CC survey.

**Notes:**

1. Cinemas have been excluded from the list if no overlaps of over 10 per cent were recorded.
2. N/A = not available.

## GUPPI analysis

172. The estimated GUPPIs for Picturehouse Edinburgh and Cineworld Edinburgh are given in Table 41.

TABLE 12 **Edinburgh: GUPPI calculations**

	<i>Picturehouse Edinburgh</i>		<i>Cineworld Edinburgh</i>	
	<i>Lowest diversion</i>	<i>Highest diversion</i>	<i>Lowest diversion</i>	<i>Highest diversion</i>
Diversion ratio	[ <del>3</del> ]	[ <del>3</del> ]	[ <del>3</del> ]	[ <del>3</del> ]
GUPPI estimate	7	7	2	2

Source: Diversion ratios are from CC survey evidence and margin data is from the parties.

173. The OFT's GUPPI estimate for Picturehouse Edinburgh was 7 per cent.<sup>37</sup>

## Third parties' evidence

174. Curzon provided estimates of the revenue overlap for Cineworld and Picturehouse cinemas in Edinburgh. Its estimate for the Picturehouse was based on a comparison of the films shown between 1 January 2013 and 23 May 2013 and films were considered to be overlapping if they were shown at the Cineworld and Picturehouse within this five-month period. Curzon's analysis showed that 71 per cent of Picturehouse Edinburgh's revenues came from films shown by Cineworld.

<sup>37</sup> OFT, [Completed acquisition by Cineworld plc of City Screen Limited](#), Table 3.

175. The Filmhouse Edinburgh's research showed that its main competitor was the Cameo Picturehouse Edinburgh. The Filmhouse Edinburgh told us it that it regularly monitored the prices of its local competitors (Cineworld Fountain Park, Cameo, and to a lesser extent, Vue Omni) and that there was considerable crossover in repertoire between Filmhouse, the Cameo and Cineworld.
176. Odeon's market shares monitoring in Edinburgh included Picturehouse Edinburgh.
177. Odeon gave examples of changing its programming at the Lothian Road cinema in response to the future programme of Picturehouse Edinburgh.
178. Vue's [redacted].

#### *New entry*

179. No parties have raised any barriers of entry specific to Edinburgh. Odeon told us that it was opening a new cinema at the Fort Kinnaird retail park to the east of the city. It said that this new site would fall outside a 20-minute isochrone centred on Picturehouse Edinburgh.
180. Another operator ([redacted]) told us that it was interested in a site in Edinburgh ([redacted]) and was in advanced negotiations. [redacted] felt that, although there were five or six cinemas in Edinburgh they were situated on the west side of the city and were all 'much of a muchness'. [redacted] was going for something 'quirky'.

## Greenwich (London)

181. In this section, we describe evidence we have reviewed relating to the competitive effects of the merger in Greenwich. A map of the cinemas in this local area is given in Annex 4.

### Competition in Greenwich and fascia reduction

182. Picturehouse operates Picturehouse Greenwich in south-east London. In the area surrounding this cinema there are a number of cinemas, including the following:

- (a) Cineworld operates multiplexes at Bexleyheath, Greenwich—The O2 and West India Quay.
- (b) Odeon operates multiplexes in Greenwich and Surrey Quays.
- (c) The Peckhamplex is an independent cinema which offers a mix of mainstream, independent and art-house features.

TABLE 1 Greenwich: competitive landscape

Operator	Travel time	Screens	Seats	GBOR £	Adult standard ticket price £
Picturehouse		5	432	[X]	12.00
Odeon Greenwich	7.4 mins car, 17 mins bus	14	2,666	[X]	10.20
Cineworld Greenwich—The O2	9.1 mins car, 19 mins bus	11	2,844	[X]	10.70
Odeon Surrey Quays	11.5 mins car, 21 mins bus	9	2,233	[X]	9.80
Cineworld West India Quay	17.4 mins car, 19 mins DLR	10	2,238	[X]	10.30
Peckhamplex	12.0 mins car, 24 mins bus	6	1,454	[X]	4.99*
Cineworld Bexleyheath	15.3 mins car	9	1,455	[X]	9.60†

Source: Data on screens and seats from the OFT, GBOR taken from Rentrak, drive-times from MapInfo.

\*[www.peckhamplex.com/](http://www.peckhamplex.com/).

†[www.cineworld.co.uk/cinemas/45#cinema=45&date=all&f=2d](http://www.cineworld.co.uk/cinemas/45#cinema=45&date=all&f=2d).

183. For Picturehouse Greenwich, the merger would result in a four to three reduction in fascias based on 20-minute isochrones and there would remain six or more fascias based on a 30-minute isochrone. For Cineworld Greenwich—The O2 and Cineworld West India Quay, there would remain six or more fascias based on both a 20- and 30-minute isochrone. For Cineworld Bexleyheath, the merger would lead to a reduction from five to four fascias based on a 20-minute isochrone and there would remain six or more fascias based on a 30-minute isochrone.

## Parties' evidence

184. Cineworld told us that in its [REDACTED].
185. The parties' first survey asked Picturehouse Greenwich customers what they would have done if the Picturehouse had been unavailable. Of the [80–90] per cent of customers who said that they would visit an alternative cinema, [60–70] per cent said they would visit Odeon, [20–30] per cent said Cineworld, [20–30] per cent Curzon and [20–30] per cent Vue.
186. The parties told us that in London the offer of the Curzon cinemas was similar to the offer of Picturehouse's London cinemas.<sup>38</sup>
187. Surveys carried out by Picturehouse in 2012 showed how customers arrived at Picturehouse Greenwich on Fridays and Saturdays. The results are shown in Table 43 and show that visitors tended to use the car more on a Saturday and the train more on a Friday.

TABLE 2 **Greenwich: consumer travel methods**

	<i>Friday 26 October %</i>	<i>Saturday 27 October %</i>	<i>Significant difference*</i>
Car	[REDACTED]	[REDACTED]	Yes
Bus	[REDACTED]	[REDACTED]	No
Train	[REDACTED]	[REDACTED]	Yes
Underground	[REDACTED]	[REDACTED]	No
Walk	[REDACTED]	[REDACTED]	No
Cycle	[REDACTED]	[REDACTED]	No
Motorcycle	[REDACTED]	[REDACTED]	No

Source: CC analysis based on Picturehouse surveys.

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\*Significance based on z-test with 95% confidence.

## Revenue overlap analysis

188. The parties' revenue overlap analysis is summarized in Table 44.

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<sup>38</sup> [Initial submission](#), paragraphs 8.7–8.8.

TABLE 3 **Greenwich: revenue, films and viewings overlap**

	<i>Cineworld Greenwich</i>	<i>Picturehouse Greenwich</i>	<i>Cineworld West India Quay</i>	<i>Picturehouse Greenwich</i>	<i>Cineworld Bexleyheath</i>	<i>Picturehouse Greenwich</i>	<i>per cent</i>	
	<i>Cineworld Greenwich</i>	<i>Picturehouse Greenwich</i>	<i>Cineworld West India Quay</i>	<i>Picturehouse Greenwich</i>	<i>Cineworld Bexleyheath</i>	<i>Picturehouse Greenwich</i>	<i>Cineworld Greenwich</i>	<i>Picturehouse Greenwich</i>
% of overlapping box office	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
% of overlapping films	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
% of overlapping viewings	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]

Source: The parties.



189. We carried out our own revenue overlap analysis of the cinemas around Picturehouse Greenwich and the results are in Table 45.

TABLE 4 **Greenwich: revenue overlap**

		<i>per cent</i>											
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Beckenham—Odeon	(1)	100	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Bermondsey—Shortwave Cinema	(2)	[X]	100	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Bethnal Green—Rich Mix Cinema	(3)	[X]	[X]	100	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Brixton—Ritzy Picturehouse	(4)	[X]	[X]	[X]	100	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Bromley—Empire	(5)	[X]	[X]	[X]	[X]	100	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Greenwich—Odeon	(6)	[X]	[X]	[X]	[X]	[X]	100	[X]	[X]	[X]	[X]	[X]	[X]
Greenwich—Greenwich Picturehouse	(7)	[X]	[X]	[X]	[X]	[X]	[X]	100	[X]	[X]	[X]	[X]	[X]
Mile End—Genesis Cinema	(8)	[X]	[X]	[X]	[X]	[X]	[X]	[X]	100	[X]	[X]	[X]	[X]
O2—Cineworld	(9)	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	100	[X]	[X]	[X]
Peckham—PeckhamPlex	(10)	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	100	[X]	[X]
Southbank—BFI	(11)	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	100	[X]
Southbank—BFI IMAX	(12)	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	100
West India Quay—Cineworld	(13)	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	100

Source: Rentrak.

190. [50–60] per cent of Picturehouse Greenwich’s revenues overlap with the Cineworld Greenwich—The O2 and the figure is [50–60] per cent for the other way around.

### *Historic visits*

191. The figures for Greenwich are in Table 46. The highest overlap for Picturehouse Greenwich is [20–30] per cent and suggests that [20–30] per cent of visits to the Picturehouse are from customers who have visited Odeon Greenwich. The highest overlap figure for Cineworld Bexleyheath is [40–50] per cent with Showcase Bluewater. The highest overlap figure for Cineworld O2 is [20–30] per cent with the Odeon Greenwich. The highest overlap figure for the Cineworld West India Quay is [20–30] per cent with Cineworld Greenwich—The O2. The figures suggest that [10–20] per cent of visits to Picturehouse Greenwich are from customers who visited Cineworld Greenwich—The O2 in the last six months.

TABLE 5 Greenwich: customer overlaps—weighted by visit

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Bermondsey—Shortwave Cinema	(1)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bethnal Green—Rich Mix Cinema	(2)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>Bexleyheath—Cineworld</b>	<b>(3)</b>	<b>[X]</b>	<b>[X]</b>	<b>100</b>	<b>[X]</b>	<b>[X]</b>	<b>[X]</b>	<b>[X]</b>	<b>[X]</b>	<b>[X]</b>
Bluewater—Showcase	(4)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Greenwich—Odeon	(5)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>Greenwich—Picturehouse</b>	<b>(6)</b>	<b>[X]</b>	<b>[X]</b>	<b>[X]</b>	<b>[X]</b>	<b>100</b>	<b>[X]</b>	<b>[X]</b>	<b>[X]</b>	<b>[X]</b>
Mile End—Genesis Cinema	(7)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>O2—Cineworld</b>	<b>(8)</b>	<b>[X]</b>	<b>[X]</b>	<b>[X]</b>	<b>[X]</b>	<b>[X]</b>	<b>[X]</b>	<b>100</b>	<b>[X]</b>	<b>[X]</b>
Peckham—PeckhamPlex	(9)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>West India Quay—Cineworld</b>	<b>(10)</b>	<b>[X]</b>	<b>[X]</b>	<b>[X]</b>	<b>[X]</b>	<b>[X]</b>	<b>[X]</b>	<b>[X]</b>	<b>[X]</b>	<b>100</b>

Source: CC survey.

Note: N/A = not available.

### GUPPI analysis

192. The estimated diversion ratios and GUPPIs for Picturehouse Greenwich, Cineworld Bexleyheath, Cineworld Greenwich—The O2 and Cineworld West India Quay are given in Table 47.

TABLE 6 Greenwich: GUPPI calculations

	Picturehouse Greenwich		Cineworld Bexleyheath		Cineworld Greenwich —The O2		Cineworld West India Quay	
	Lowest diversion	Highest diversion	Lowest diversion	Highest diversion	Lowest diversion	Highest diversion	Lowest diversion	Highest diversion
Diversion ratio	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
GUPPI estimate	7	10	0	0	1	2	0	2

Source: Diversion ratios are from CC survey evidence and margin data is from the parties.

193. The OFT's GUPPI estimate for Picturehouse Greenwich was 3 per cent.<sup>39</sup>

### Event analysis

194. In June 2010, Cineworld took over The O2 cinema at Greenwich, which was previously operated by Vue. The change of ownership on the Greenwich Picturehouse could therefore be used as an event to investigate competition between the Cineworld and Picturehouse cinemas. However, since the event is a change in ownership, the impact on Picturehouse Greenwich is relative to the continuing

<sup>39</sup> OFT, [Completed acquisition by Cineworld plc of City Screen Limited](#), Table 3.

operation of the Vue cinema, not the opening of a Cineworld cinema where a cinema did not exist before.

TABLE 7 **Greenwich: events analysis**

	<i>Before</i>	<i>After</i>	<i>% change</i>
Greenwich Picturehouse	[REDACTED]	[REDACTED]	5
No events control group	[REDACTED]	[REDACTED]	12
Correlation control group	[REDACTED]	[REDACTED]	5

Source: Rentrak.

195. The Picturehouse Greenwich's revenues grew less than one control group and by roughly the same as the other control group.

### *Third parties' evidence*

196. Curzon provided estimates of the revenue overlap for Cineworld and Picturehouse cinemas in Greenwich. Its estimate for the Picturehouse was based on a comparison of the films shown between 1 January 2013 and 23 May 2013 and films were considered to be overlapping if they were shown at Cineworld Greenwich—The O2 and Picturehouse Greenwich within this five-month period. Curzon's analysis showed that 65 per cent of Picturehouse Greenwich's revenues came from films shown by Cineworld Greenwich—The O2.
197. Empire [REDACTED].
198. The ICA told us that it monitored the performance of Picturehouse Greenwich.
199. Odeon told us that its market shares monitoring in London Docklands included Picturehouse Greenwich.

200. Shortwave cinema told us that the closest competitors in terms of the cinema programme were Ritzy, Barbican, Rio and Rich Mix, which were other independents, but these were further away.

### *New entry*

201. No parties have raised any barriers to entry specific to Greenwich. No parties have made us aware of any planned new cinemas in Greenwich.

### ***Southampton***

202. In this section, we describe evidence we have reviewed relating to the competitive effects of the merger in Southampton. A map of the cinemas in this local area is given in Annex 4.

### *Competition in Southampton and fascia reduction*

203. In Southampton there are three cinemas:
- (a) Picturehouse operates the Harbour Lights Picturehouse.
  - (b) Cineworld operates a multiplex cinema which is located close to the Picturehouse.
  - (c) Odeon operates a multiplex in Southampton.
204. In addition to these cinemas in Southampton, there are other cinemas in nearby towns: a Vue in Eastleigh, a Reel in Fareham, an Everyman in Winchester and an Odeon in Port Solent.

TABLE 8 **Southampton: competitive landscape**

Cinema	Drive-time from Picturehouse (minutes)	Screens	Screens share %	Seats	GBOR £	GBOR share %	Adult standard ticket price £
Picturehouse Southampton		2	5	463	[X]	[5–10[	8.50
Cineworld Southampton	0.5	5	12	1,651	[X]	[5–10]	9.00
<b>Post-merger</b>		<b>7</b>	<b>17</b>		[X]	<b>[10–20]</b>	
Odeon Southampton	3.9	13	31	2,549	[X]	[30–40]	9.40
Vue Eastleigh	16.8	9	21	1,571	[X]	[20–30]	9.40
Reel Fareham	20.6	5	12	761	[X]	[0–5]	7.70/8.00*
Everyman Winchester	23.0	2	5		[X]	[5–10]	9.00†
Odeon Port Solent	25.4	6	14	1,409	[X]	[10–20]	8.95

Source: Data on screens and seats taken from the [parties' initial submission](#), GBOR taken from Rentrak, drive-times from MapInfo.

\*£7.70 Monday–Thursday. £8.00 Friday–Sunday. [www.reelcinemas.co.uk/films-out-now/?p\\_c\\_id=1082](http://www.reelcinemas.co.uk/films-out-now/?p_c_id=1082).

†[www.everymancinema.com/](http://www.everymancinema.com/).

205. For both the Picturehouse and Cineworld cinemas, the merger would lead to a four to three reduction in fascias based on a 20-minute isochrone and there would be six or more fascias based on a 30-minute isochrone.

### *Parties' evidence*

206. Cineworld told us that in its [X].

207. Picturehouse said that it [X].

208. The parties told us:

Harbour Lights Picturehouse's programming is almost entirely different to that of Cineworld Southampton and as such these two cinemas cannot be considered to be close competitors. In 2012, Harbour Lights Picturehouse showed a total of [X] individual films/arts performances on its 2 screens while the Cineworld Southampton showed [X] films on 5 screens. Out of the [X] individual films and arts performances shown at the Harbour Lights Picturehouse in 2012, [10–20] per cent were shown at the Cineworld Southampton.

Over the past three years, over [60–70] per cent of films shown at the Harbour Lights Picturehouse have not been screened at another cinema in the area. On average [⅔] of the UK's annual top 20 films have been in the Harbour Lights Picturehouse's top 20 films over the past three years. This is in contrast with the Cineworld Southampton which has had an average of [⅓] of the UK's annual top 20 films within its top 20 films over the past three years.

The Harbour Lights Picturehouse's differentiated programming is valued highly by its customers: [60–70] per cent of respondents to the First Survey selected the ability to view a range of art-house/independent films and screen arts events as one of the top three factors influencing their decision to visit the Harbour Lights Picturehouse.

209. The parties' first survey asked Picturehouse Southampton customers what they would have done if the Picturehouse had been unavailable. Of the [80–90] per cent of customers who said that they would visit an alternative cinema, [50–60] per cent said they would visit Odeon, [40–50] per cent said Cineworld and [30–40] per cent Vue.
210. The parties submitted evidence which first defined the geographic market around each of the merging parties' cinemas as the area capturing 80 per cent of the cinema's customers and then assessed competition by recentering the isochrones around customers. The results of this analysis for Southampton showed that the merger would lead to a fascia reduction from five to four, irrespective of the filter applied.

211. The parties provided an updated analysis based on 30-minute catchment areas. The results for this showed that for Southampton the reduction in fascias was five to four or better, irrespective of the filter used.

212. The parties' 80 per cent catchment isochrones for Southampton resulted in 38-minute drive-times for the Harbour Lights Picturehouse and 26 minutes for Cineworld Southampton.

### *Survey evidence*

213. Our survey asked customers how long they had travelled to get to the cinema. The results are summarized in Table 50.

TABLE 9 **Southampton: survey responses on travel times**

	<i>per cent</i>	
	<i>Cineworld Southampton</i>	<i>Harbour Lights Picturehouse</i>
Less than 10 minutes	[X]	[X]
11–20 minutes	[X]	[X]
21–30 minutes	[X]	[X]
31–40 minutes	[X]	[X]
41–50 minutes	[X]	[X]
51–60 minutes	[X]	[X]
More than an hour	*	[X]
Don't know/can't remember	-	*

*Source:* CC survey.

214. This suggests that [80–90] per cent of Cineworld Southampton visits involve a journey time of 30 minutes or less. The figure for Picturehouse Southampton is [70–80] per cent.

### *Revenue overlap analysis*

215. The parties' revenue overlap analysis is summarized in Table 51.

TABLE 10 **Southampton: revenue, films and viewings overlap**

	<i>per cent</i>	
	<i>Cineworld Southampton</i>	<i>Picturehouse Southampton</i>
% of overlapping box office	[30]	[30]
% of overlapping films	[30]	[30]
% of overlapping viewings	[30]	[30]

Source: The parties.

216. We carried out our own revenue overlap analysis of the cinemas in Southampton and the results are in Table 52.

TABLE 11 **Southampton: revenue overlaps**

		<i>per cent</i>											
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Bognor Regis—Picturedrome	(1)	100	[30]	[30]	[30]	[30]	[30]	[30]	[30]	[30]	[30]	[30]	[30]
Eastleigh—Vue	(2)	[30]	100	[30]	[30]	100	[30]	[30]	[30]	[30]	[30]	[30]	[30]
Lymington—Lymington Cinema	(3)	[30]	[30]	100	[30]	[30]	[30]	[30]	[30]	[30]	[30]	[30]	[30]
Portsmouth—Odeon	(4)	[30]	[30]	[30]	100	[30]	[30]	[30]	[30]	[30]	[30]	[30]	[30]
Portsmouth—Vue	(5)	[30]	[30]	[30]	[30]	100	[30]	[30]	[30]	[30]	[30]	[30]	[30]
Portsmouth—No. 6 Cinema	(6)	[30]	[30]	[30]	[30]	[30]	100	[30]	[30]	[30]	[30]	[30]	[30]
Reading—Vue	(7)	[30]	[30]	[30]	[30]	[30]	[30]	100	[30]	[30]	[30]	[30]	[30]
Ringwood—Rex Cinema	(8)	[30]	[30]	[30]	[30]	[30]	[30]	[30]	100	[30]	[30]	[30]	[30]
Southampton—Cineworld	(9)	[30]	[30]	[30]	[30]	[30]	[30]	[30]	[30]	100	[30]	[30]	[30]
Southampton—Picturehouse	(10)	[30]	[30]	[30]	[30]	[30]	[30]	[30]	[30]	[30]	100	[30]	[30]
Southampton—Odeon	(11)	[30]	[30]	[30]	[30]	[30]	[30]	[30]	[30]	[30]	[30]	100	[30]
Winchester—Everyman Group	(12)	[30]	[30]	[30]	[30]	[30]	[30]	[30]	[30]	[30]	[30]	[30]	100

Source: Rentrak.

217. [40–50] per cent of Picturehouse Southampton’s revenues overlap with Cineworld Southampton, and [30–40] per cent the other way around. For Picturehouse, this [40–50] per cent figure is lower than Picturehouse’s overlap with Odeon Southampton ([50–60] per cent).

### *Historic visits*

218. The highest overlap for Picturehouse Southampton is [20–30] per cent and suggests that [20–30] per cent of visits to the Picturehouse are from customers who have visited Odeon Southampton in the last six months. The highest overlap for Cineworld Southampton is [50–60] per cent with Odeon Southampton.



TABLE 53 **Southampton: customer overlaps by historic visits—weighted by visit**

		<i>per cent</i>			
		(1)	(2)	(3)	(4)
Eastleigh Vue	(1)	N/A	N/A	N/A	N/A
Southampton —Cineworld	(2)	[ <del>3</del> ]	100	[ <del>3</del> ]	[ <del>3</del> ]
Southampton —Odeon	(3)	N/A	N/A	N/A	N/A
Southampton —Picturehouse	(4)	[ <del>3</del> ]	[ <del>3</del> ]	[ <del>3</del> ]	100

Source: CC survey.

### *GUPPI analysis*

219. The estimated diversion ratios and GUPPIs for Picturehouse Southampton and Cineworld Southampton are given in Table 54.

TABLE 54 **Southampton: GUPPI calculations**

	<i>Picturehouse Southampton</i>		<i>Cineworld Southampton</i>	
	<i>Lowest diversion</i>	<i>Highest diversion</i>	<i>Lowest diversion</i>	<i>Highest diversion</i>
Diversion ratio	[ <del>3</del> ]	[ <del>3</del> ]	[ <del>3</del> ]	[ <del>3</del> ]
GUPPI estimate	11	11	2	2

Source: Diversion ratios are from CC survey evidence and margin data is from the parties.

220. The OFT's GUPPI estimate for the Southampton Picturehouse was 4 per cent.<sup>40</sup>

### *Event analysis*

221. In April 2009, Vue opened a cinema in Eastleigh to the north of Southampton. This event could be used to investigate competition in the Southampton area. The results in Table 55 show that the revenues of both Cineworld Southampton and Picturehouse Southampton grew by less than their respective control groups.

<sup>40</sup> OFT, [Completed acquisition by Cineworld plc of City Screen Limited](#), Table 3.

TABLE 55 **Southampton: event analysis**

	<i>GBOR before</i>	<i>GBOR after</i>	<i>% change</i>
Picturehouse Southampton	[X]	[X]	-25
No events control group	[X]	[X]	-2
Correlation control group	[X]	[X]	3
Cineworld Southampton	[X]	[X]	-15
No events control group	[X]	[X]	15
Correlation control group	[X]	[X]	16

Source: Rentrak.

### *Third parties' evidence*

222. Curzon provided estimates of the revenue overlap for Cineworld and Picturehouse cinemas in Southampton. Its estimate for the Picturehouse was based on a comparison of the films shown between 1 January 2013 and 23 May 2013 and films were considered to be overlapping if they were shown at the Cineworld Southampton and Picturehouse Southampton within this five-month period. Curzon's analysis showed that 55 per cent of Picturehouse Southampton's revenues came from films shown by Cineworld.
223. Odeon's market shares monitoring in Southampton included Picturehouse Southampton. Odeon told us that the opening of Vue Eastleigh had reduced Odeon Southampton's share of cinema attendance from [X] to [X] per cent.

### *New entry*

224. No parties have raised any barriers to entry specific to Southampton.
225. In the course of our inquiry, outline permission was awarded to Hammerson for the development of a brownfield site adjacent to the West Quay Shopping Centre. Hammerson told us that the scheme comprised plans for a ten-screen cinema, which would open by mid-2016, on the assumption that detailed planning permission was obtained within 12 months. [X]

226. The parties told us that there was an expectation that Odeon would close down within three or four years after the opening of the new cinema, but overall cinema capacity would still be higher than currently.

227. [REDACTED]

### **Stratford**

228. In this section, we describe evidence we have reviewed relating to the competitive effects of the merger in Stratford. A map of the cinemas in this local area is given in Annex 4.

#### *Competition in Stratford and fascia reduction*

229. Picturehouse operates Picturehouse Stratford in east London. In the area surrounding this cinema there are a number of cinemas, including the following:
- (a) Cineworld operates multiplexes at The O2 and West India Quay.
  - (b) The Boleyn is an independent cinema which focuses on Bollywood films.<sup>41</sup>
  - (c) The Genesis is an independent cinema which told us that it was changing its programming to a less commercial repertoire because of Vue Westfield taking that business.
  - (d) Odeon operates a multiplex at Surrey Quays.
  - (e) Vue operates a multiplex at the Westfield shopping centre in Stratford.

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<sup>41</sup> [www.boleyncinema.com/](http://www.boleyncinema.com/).

TABLE 56 **Stratford: competitive landscape**

<i>Operator</i>	<i>Travel time</i>	<i>Screens</i>	<i>Seats</i>	<i>GBOR £</i>	<i>Adult standard ticket price £</i>
Picturehouse Stratford		4	864	[X]	8.50
Cineworld Greenwich—The O2	10.3 mins car, 23 mins tube	11	2,844	[X]	10.70
Cineworld West India Quay	10.3 mins car, 24 mins DLR	10	2,238	[X]	10.30
Vue Stratford City	11.5 mins car, 10 mins car	17		[X]	10.50
Odeon Surrey Quays	18.1 mins car, 23 mins tube & bus	9	2,187	[X]	9.80
Genesis Mile End	9.3 mins car	5		[X]	6.50*
Boleyn	9.3 mins car	1		[X]	

*Source:* Data on screens and seats taken from the OFT, GBOR taken from Rentrak, drive-times from MapInfo.

[\\*www.genescinema.co.uk/](http://www.genescinema.co.uk/).

230. Following the proposed merger there would remain six or more fascias around the Picturehouse Stratford, based on both 20- and 30-minute isochrones. The same would be true for both the Cineworld Greenwich—The O2 and Cineworld West India Quay.

### *Parties' evidence*

231. The parties told us that in London the offer of the Curzon cinemas was similar to the offer of Picturehouse's London cinemas.<sup>42</sup>

### *Revenue overlap analysis*

232. The parties did not carry out a revenue overlap analysis for Stratford.

233. We carried out our own revenue overlap analysis of the cinemas in east London and the results are in Table 57.

<sup>42</sup> [Initial submission](#), paragraphs 8.7–8.8.

TABLE 57 **Stratford: revenue overlaps**

		<i>per cent</i>												
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Bethnal Green—Rich Mix Cinema	(1)	100	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Dalston—Rio Cinema	(2)	[X]	100	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
East Ham—Boleyn Cinema	(3)	[X]	[X]	100	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Greenwich—Odeon	(4)	[X]	[X]	[X]	100	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Hackney—Hackney Picturehouse	(5)	[X]	[X]	[X]	[X]	100	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Ilford—Cineworld	(6)	[X]	[X]	[X]	[X]	[X]	100	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Mile End—Genesis Cinema	(7)	[X]	[X]	[X]	[X]	[X]	[X]	100	[X]	[X]	[X]	[X]	[X]	[X]
O2—Cineworld	(8)	[X]	[X]	[X]	[X]	[X]	[X]	[X]	100	[X]	[X]	[X]	[X]	[X]
Shoreditch—The Aubin	(9)	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	100	[X]	[X]	[X]	[X]
South Woodford—Odeon	(10)	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	100	[X]	[X]	[X]
Picturehouse Stratford	(11)	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	100	[X]	[X]
West India Quay—Cineworld	(12)	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	100	[X]
Westfield Stratford—Vue	(13)	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	100

Source: Rentrak.

234. [70–80] per cent of Picturehouse Stratford's revenues overlap with Cineworld

Greenwich—The O2 and [80–90] per cent with Cineworld West India Quay.

### *Historic visits*

235. The highest historical overlap for Picturehouse Stratford is [30–40] per cent and suggests that [30–40] per cent of visits to the Picturehouse are from customers who have visited Vue Stratford in the last six months. The highest overlap for Cineworld O2 is [20–30] per cent with Cineworld West India Quay. The highest overlap for Cineworld West India Quay is [20–30] per cent with Cineworld O2.

TABLE 58 **Stratford East: customer overlaps—weighted by visit**

		<i>per cent</i>							
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Greenwich—Odeon	(1)	-	-	-	-	-	-	-	-
Mile End—Genesis	(2)	-	-	-	-	-	-	-	-
O2—Cineworld	(3)	[X]	[X]	100	[X]	[X]	[X]	[X]	[X]
South Woodford—Odeon	(4)	-	-	-	-	-	-	-	-
Stratford East—Picturehouse	(5)	[X]	[X]	[X]	[X]	100	[X]	[X]	[X]
West India Quay—Cineworld	(6)	[X]	[X]	[X]	[X]	[X]	100	[X]	[X]
Westfield Stratford—Vue	(7)	-	-	-	-	-	-	-	-
Hackney—Picturehouse	(8)	-	-	-	-	-	-	-	-

Source: CC survey.

Note: Cinemas have been excluded from the list where no overlaps of over 10 per cent were recorded.

## GUPPI analysis

236. The estimated diversion ratios and GUPPIs for Picturehouse Stratford, Cineworld Greenwich—The O2 and Cineworld West India Quay are given in Table 59.

TABLE 59 **Stratford: GUPPI calculations**

	<i>Picturehouse— Stratford</i>		<i>Cineworld Greenwich—The O2</i>		<i>Cineworld—West India Quays</i>	
	<i>Lowest diversion</i>	<i>Highest diversion</i>	<i>Lowest diversion</i>	<i>Highest diversion</i>	<i>Lowest diversion</i>	<i>Highest diversion</i>
Diversion ratio	[X]	[X]	[X]	[X]	[X]	[X]
GUPPI estimate	7	8	1	2	0	2

Source: Diversion ratios are from CC survey evidence and margin data is from the parties.

237. The OFT's GUPPI estimate for Picturehouse Stratford was 4 per cent.<sup>43</sup>

## Event analysis

238. In October 2011, Picturehouse Hackney opened. The results of our estimation of the impact of this cinema opening on Cineworld West India Quay are given in Table 60.

TABLE 60 **Stratford: events analysis**

	<i>Before GBOR</i>	<i>After GBOR</i>	<i>% change</i>
West India Quay Cineworld	[X]	[X]	–7
No events control group	[X]	[X]	0
Correlation control group	[X]	[X]	2

Source: Rentrak.

239. Cineworld West India Quay's revenues fell by 7 per cent whilst the control groups' either stayed the same or rose slightly. The parties told us that the opening of Picturehouse Hackney was coincidental with Cineworld taking over the cinema at The O2, which led to customers moving from Cineworld West India Quay to Cineworld Greenwich—The O2.

<sup>43</sup> OFT, [Completed acquisition by Cineworld plc of City Screen Limited](#), Table 3.

### *Third parties' evidence*

240. Curzon did not provide a revenue overlap estimate for Stratford.
241. Empire [REDACTED].
242. Genesis Cinema told us that it saw Cineworld West India Quay, Picturehouse Greenwich, Hackney and Stratford as competitors, along with Aubin, Barbican, Odeon Greenwich, Rich Mix and Rio Dalston.
243. Odeon's monitoring of competitors in east London did not include Picturehouse Stratford. However, its monitoring of competitors around its South Woodford cinema did include Picturehouse Stratford.
244. Rich Mix told us that it considered the following cinemas to be its competitors: Aubin, Cineworld West India Quay, Genesis, Picturehouse Hackney, Picturehouse Stratford, Vue Westfield in Stratford and Vue Islington.
245. Rio Cinema told us that it saw the Barbican, Screen on the Green, Hackney Picturehouse, Rich Mix, Genesis and Odeon Holloway as operating in its catchment area. Rio Cinema said that the Hackney Picturehouse was its nearest competitor and estimated that the opening of this cinema had led to a 5 to 10 per cent decrease in admissions.
246. Vue's [REDACTED].

## Theory of Harm 2

247. The second theory of harm we considered is that the merger may lead to a loss of a potential competitor in an area. Under this theory of harm, by removing a potential competitor from some local markets, the merger may reduce the competitive pressure in those markets. There are two ways the merger could reduce competitive pressure:

- (a) Either merger party could decide to stop a development that it would otherwise have undertaken, in order to avoid competing with the other. This could result in harm to consumers relative to the counterfactual.
- (b) The parties could continue with developments. This could result in harm to consumers because, in the counterfactual, consumers would benefit from the competition between these cinemas (equivalent to the existing competition analysed under the first theory of harm).

248. In respect of both of these scenarios, we need to consider first the likelihood of entry absent the merger, and second whether such entry would have led to greater competition.<sup>44</sup>

249. Regarding the first of these potential concerns, we did not find any evidence that, as a result of the merger, Picturehouse had decided not to proceed with plans to open a new cinema to avoid competing with an existing or planned Cineworld cinema. In contrast, there were examples where Picturehouse was planning to open new cinemas in competition with Cineworld. For example, in Chiswick the nearest cinema to the new Picturehouse will be the Cineworld Hammersmith. Similarly, we did not find any evidence that, as a result of the merger, Cineworld had decided not to proceed with plans to open a new cinema in order to avoid competing with an existing or planned Picturehouse cinema.

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<sup>44</sup> *Merger Assessment Guidelines*, CC2, [paragraphs 5.4.13–5.4.15](#).



250. The second of these potential concerns is discussed further below, focusing first on the future plans of Picturehouse and then Cineworld.

### ***Picturehouse future developments***

251. Picturehouse told us that as of June 2012 it had 13 pipeline developments. These were [REDACTED], Brighton, Bury café, [REDACTED], Chiswick (London), Crouch End (London) [REDACTED].
252. Picturehouse told us that these pipeline developments were at different stages and since June 2012 some had progressed, while others were no longer going ahead for reasons unrelated to the merger. Picturehouse told us that as of June 2013, there were two developments where Picturehouse had exchanged or signed contracts on freeholds or leaseholds: Chiswick and Crouch End:
- (a) Chiswick. Picturehouse told us that it had exchanged contracts with Rambert Dance Company and completion for lease of the premises was conditional on planning consent, which it expected to receive in [REDACTED]. Picturehouse told us that the venue would have [REDACTED] screens of [REDACTED] seats, [REDACTED] bars and a café. Picturehouse estimated that construction would commence in late 2013, with opening planned for [REDACTED].
- (b) Crouch End. Picturehouse told us that it had exchanged a contract for lease of the site which was conditional on planning and licensing consent being granted. It said that it expected to receive planning permission in [REDACTED]. It told us that construction was expected to start in [REDACTED] with the [REDACTED]-screen cinema opening in [REDACTED].
253. In addition, Picturehouse told us that in [REDACTED] it was confident of exchanging contracts and thought that the probability of this development going ahead was around [REDACTED] per cent. Picturehouse told us that it was experiencing delays in progressing to the pre-application planning process due [REDACTED]. Should the plans progress, the cinema would

have [X] seats across [X] screens. Draft legal documentation had been issued and the planning process was expected to progress [X], with the cinema opening in [X].

254. For its other development sites, Picturehouse told us that while it was in discussions on some sites, it had not purchased the land, nor signed contracts with any landholder, nor entered any pre-application planning process. We concluded that the merger was unlikely to raise competitive concerns in these local areas due to the uncertainty that these developments would take place.
255. Our analysis of the three developments where there was a higher likelihood that Picturehouse would open cinemas is below. Our approach to these future developments was similar to that used for the existing cinemas, with the difference being that we also included in the fascia count Cineworld's future developments that we considered were likely to occur.

### *Chiswick and Crouch End*

256. Our analysis of fascias surrounding the Chiswick development showed that following the merger there would be over four fascias based on 20- and 30-minute isochrones. The closest cinema to the Chiswick development would be Cineworld Hammersmith.
257. Our analysis of fascias surrounding the Crouch End development showed that following the merger there would be over four fascias based on 20- and 30-minute isochrones. The cinema closest to the Crouch End development would be Cineworld Wood Green.

[✂]

258. Our analysis of fascias surrounding the [✂] sites showed that following the merger there would be over four fascias based on 20- and 30-minute isochrones and that Cineworld cinemas would not be the nearest cinemas.

#### *Analysis of existing Cineworld cinemas*

259. While carrying out our investigation of Theory of Harm 2 on the Picturehouse developments, we also considered whether the additional Picturehouse cinemas would create overlaps with existing Cineworld cinemas.
260. Cineworld operates a cinema in Enfield, which lies in the north of London within the M25. Enfield lies around 15 minutes from Crouch End, where Picturehouse intends to build a new cinema. A map of the cinemas in this local area is given in Annex 5. Taking Crouch End into account, the merger would lead to a reduction of four to three fascias based on a 20-minute isochrone. With a 30-minute isochrone, the number of fascias following the merger is more than four. Curzon told us that it was planning to franchise a two-screen cinema on a site in Crouch End, for which it would provide the programming and brand, but which would be owned and operated by a third party. One of the screens would be used entirely for films, while the other one would be used for films 60 per cent of the time. The owners were putting in place the installations and it was anticipated that the cinema would open in early October 2013. This development, plus the locations of the Cineworld and Picturehouse cinemas, led us to conclude that the merger would be unlikely to lead competition concerns in this local area.

### ***Cineworld future developments***

261. Cineworld told us that as of June 2012, it had [redacted] pipeline cinemas. It said that these pipeline cinemas were at different development stages and since June 2012 some had progressed, while others were no longer going ahead.
262. On the basis of what Cineworld told us, we considered that as of June 2013 there were 28 pipeline cinemas where Cineworld was close to exchanging contracts on freeholds or leaseholds and/or had applied for or received planning permission.
263. Eighteen of these 28 Cineworld pipeline cinemas were more than 30 minutes from a Picturehouse cinema and therefore we did not consider that the merger was likely to lead to competition concerns in the areas around these cinemas.
264. Of the remaining ten cinemas, in seven cases there would still be at least four fascias remaining after the merger, based on both 20- and 30-minute isochrones. Therefore we did not consider it likely that there would be competition concerns in these seven areas.
265. In three remaining cases, [redacted], the reduction in fascias was four to three or fewer on either a 20- or 30-minute isochrones.

[redacted]

266. [redacted] to the west of Cambridge, where there is Picturehouse cinema. A map of the cinemas in this local area is given in Annex 5. Cineworld will operate the only cinema in [redacted], but because of the proximity to Cambridge the merger would lead to a three to two reduction in fascia count if one uses a 30-minute isochrone. On a 20-minute isochrone there would be no change in fascias. Given the distances between [redacted]

and Cambridge, our provisional view was that the merger would be unlikely to lead to competition concerns in this local area.<sup>45</sup>

[redacted]

267. [redacted] to the south-east of Bath, where there is a Picturehouse cinema. A map of the cinemas in this local area is given in Annex 5. The merger would lead to a four to three reduction in fascia count based on a 30-minute isochrone. On a 20-minute isochrone there would be no change in fascias.

268. The parties told us that Odeon was planning to open a cinema in [redacted].<sup>46</sup> Odeon told us that this cinema was due to open in 2013 and would have seven screens. This, plus the distances between [redacted] and Bath, led us to a provisional view that it was unlikely that the merger would lead to competition concerns in this local area.

[redacted]

269. [redacted] lies in north-west London and following the opening of Picturehouse's Chiswick cinema, the two cinemas would be just less than 20 minutes apart. A map of the cinemas in this local area is given in Annex 5. This would lead to a four to three reduction in fascia count based on a 20-minute isochrone. On a 30-minute isochrone there would be more than four fascias.

270. Given the locations of the competing cinemas and the distances between [redacted] and the proposed Chiswick cinema, our provisional view was that it is unlikely that the merger would lead to competition concerns in this local area.

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<sup>45</sup> Cineworld already operates the only multiplex cinemas in Bedford, [redacted].

<sup>46</sup> See also [redacted].

### Nine Picturehouse cinemas where post-merger fascia count is four or more

<i>Picturehouse cinema</i>	<i>20-minute fascia change</i>	<i>30-minute fascia change</i>
Clapham	6+	6+
Stratford-upon-Avon	No change	6+
Liverpool	5 to 4	6+
Hackney	6+	6+
Notting Hill	6+	6+
Stratford	6+	6+
Bath	No change	6+
Henley-on-Thames	5 to 4	6+
Brixton	6+	6+

*Source:* MapInfo analysis.

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### Forty-nine Cineworld cinemas more than 30 minutes from Picturehouse

<i>Cineworld cinema</i>	<i>Nearest Picturehouse cinema</i>	<i>MapInfo drive-time</i>
Birmingham	Stratford upon Avon	44
Yeovil	Exeter	68
Bradford	York	52
Bolton	Liverpool	49
Eastbourne	Duke of York	41
Haverhill	Bury	31
Cardiff	Bath	71
Chester	Liverpool	41
Harlow	Hackney	32
Braintree	Cambridge	50
Rugby	Stratford upon Avon	38
Dundee	Edinburgh	68
Burton-on-Trent	Stratford upon Avon	61
Weymouth	Southampton	90
Falkirk	Edinburgh	38
Glasgow	Edinburgh	57
Glasgow The Forge	Edinburgh	57
Gloucester	Stratford upon Avon	56
Cheltenham	Stratford upon Avon	47
Aldershot	Henley-on-Thames	50
Hull	York	55
Ipswich	Bury	35
Jersey	N/A	N/A*
Llanduno	Liverpool	76
Luton Beds	Notting Hill	54
Manchester	Liverpool	45
Rochester	Greenwich	35
Bedford	Cambridge	42
Milton Keynes	Oxford	56
Boldon Tyne	York	88
Nottingham	Stratford upon Avon	81
Northampton	Oxford	49
Newport	Bath	50
Ashton	Liverpool	54
Huntingdon	Cambridge	30
Chichester	Southampton	38
Newport Isle of Wight	N/A	N/A*
Chesterfield	York	74
Sheffield	York	58
Stevenage	Cambridge	42
Stockport	Liverpool	49
Swindon	Bath	44
Shrewsbury	Stratford upon Avon	85
Ashford	Greenwich	59
Middlesbrough	York	62
Castleford	York	37
Wakefield	York	42
Leigh	Liverpool	38
Wolverhampton	Stratford upon Avon	61

Source: MapInfo analysis.

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\*Jersey and the Isle of Wight are islands and so MapInfo is unable to compute the drive time.

### Twenty Cineworld cinemas where post-merger fascia count is four or more

<i>Cineworld cinema</i>	<i>20-minute fascia change</i>	<i>30-minute fascia change</i>
Wood Green	6+	6+
Staples Corner	6+	6+
Crawley	No change	5 to 4
The O2	6+	6+
Fulham Road	6+	6+
Wandsworth	6+	6+
Haymarket	6+	6+
Chelsea	6+	6+
Feltham	No change	6+
Trocadero	6+	6+
Hammersmith	6+	6+
St Helens	No change	6+
Runcorn	No change	6+
Solihull	No change	6+
Bristol Avon	No change	6+
Bexleyheath	5 to 4	6+
West India Quay	6+	6+
Ilford	6+	6+
Liverpool	5 to 4	6+
Enfield	No change	6+

*Source:* MapInfo analysis.

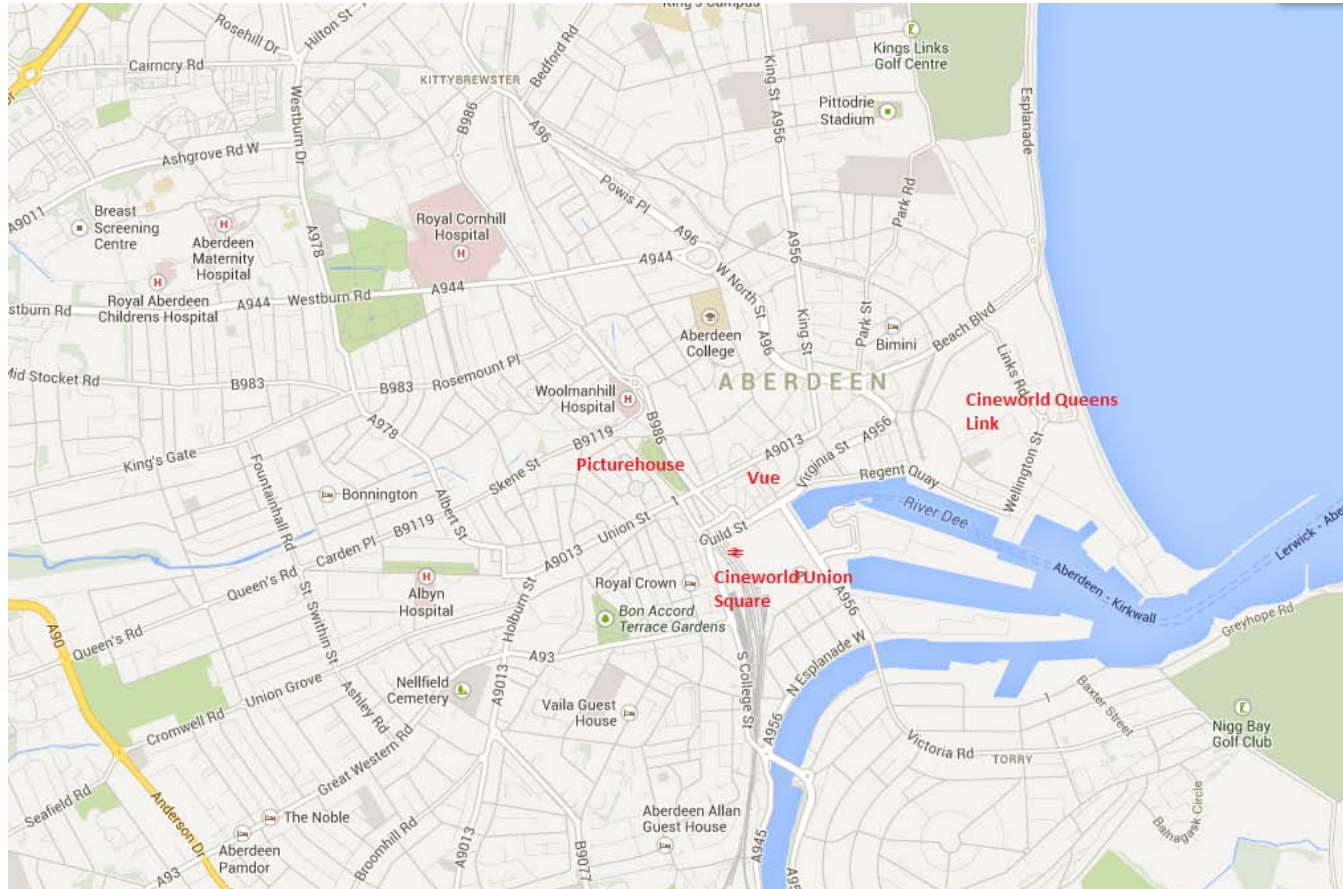
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## Theory of Harm 1 maps

FIGURE 1

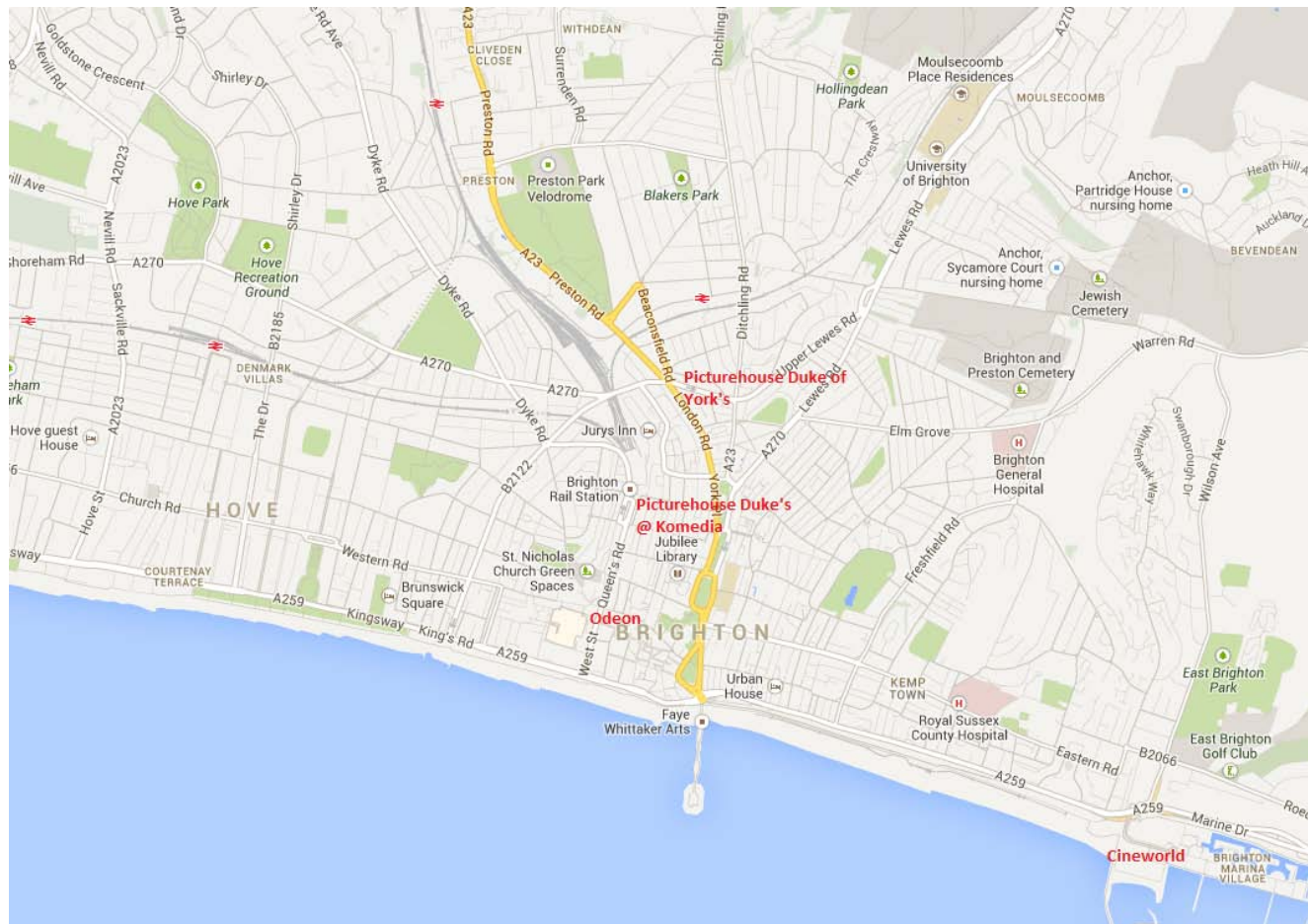
**Aberdeen**



Source: CC analysis.

FIGURE 2

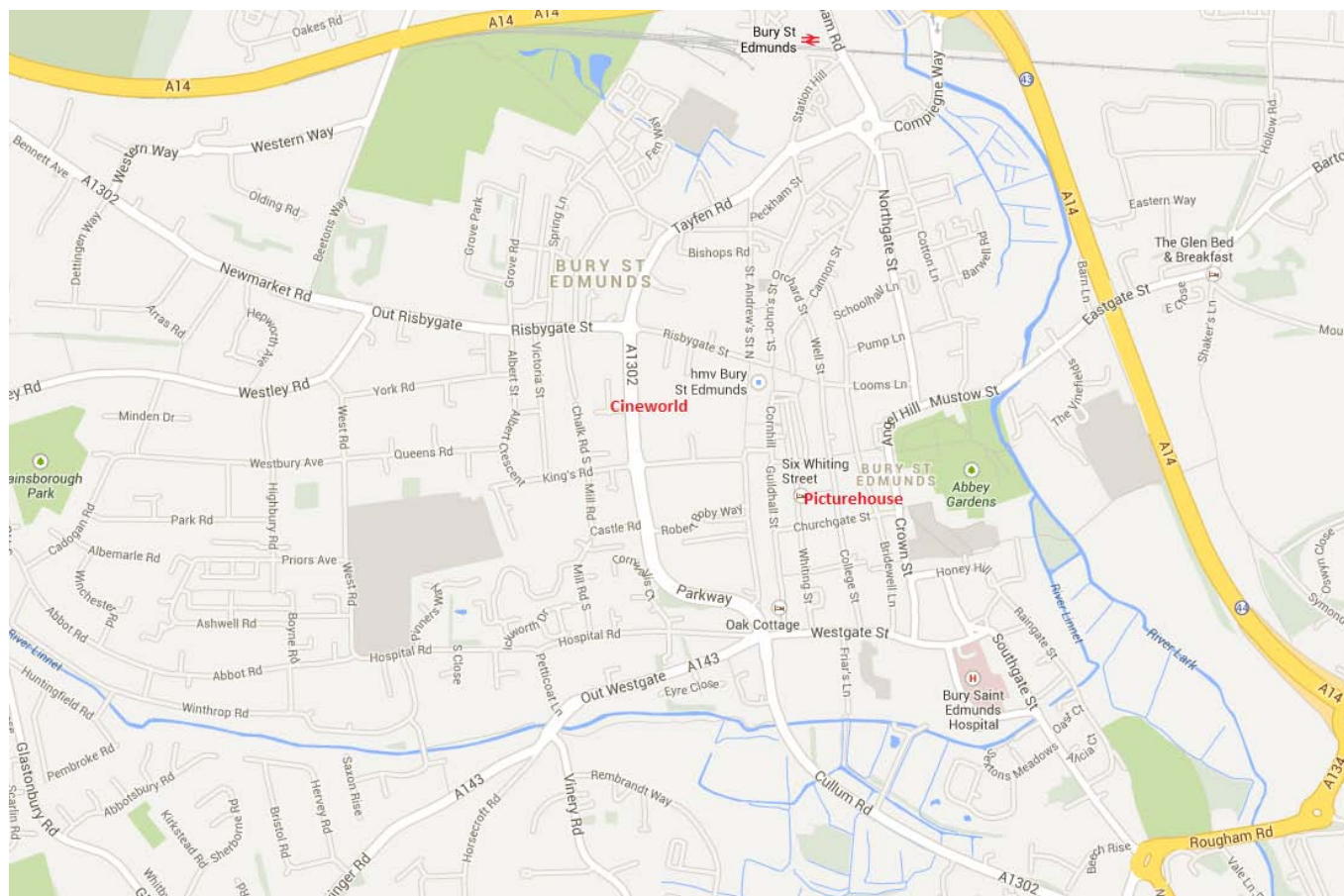
## Brighton



Source: CC analysis.

FIGURE 3

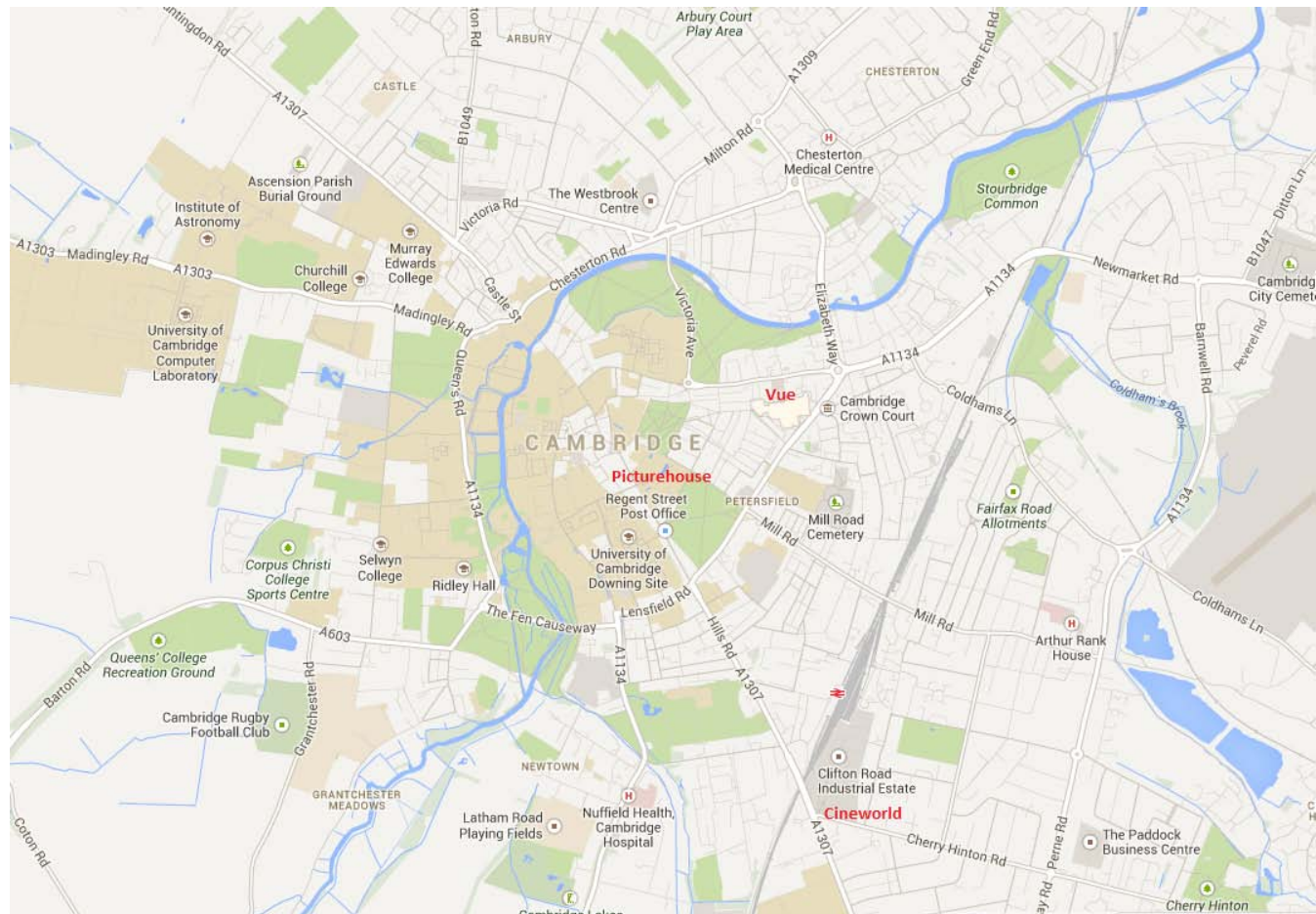
## Bury St Edmunds



Source: CC analysis.



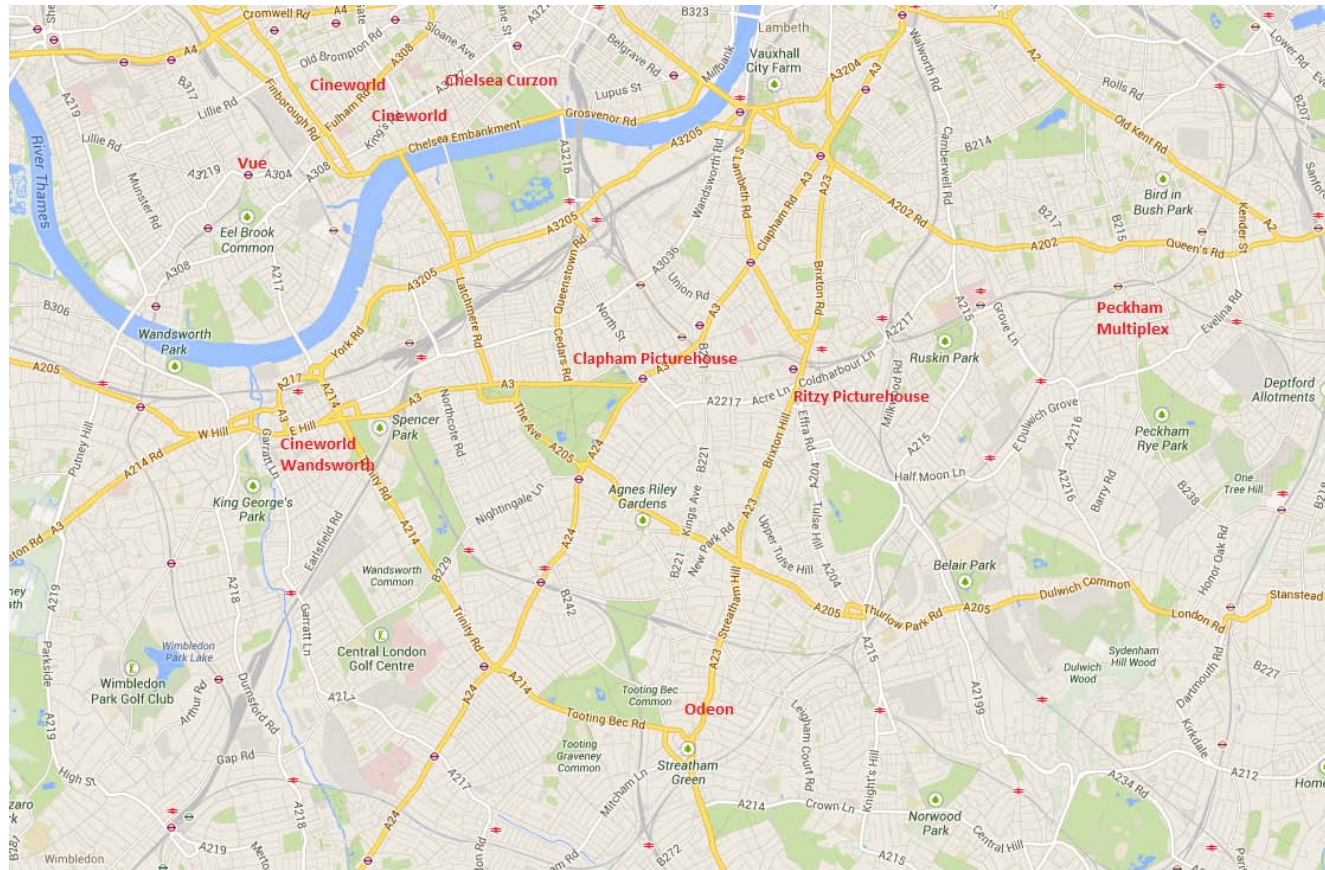
FIGURE 4  
Cambridge



Source: CC analysis.

FIGURE 5

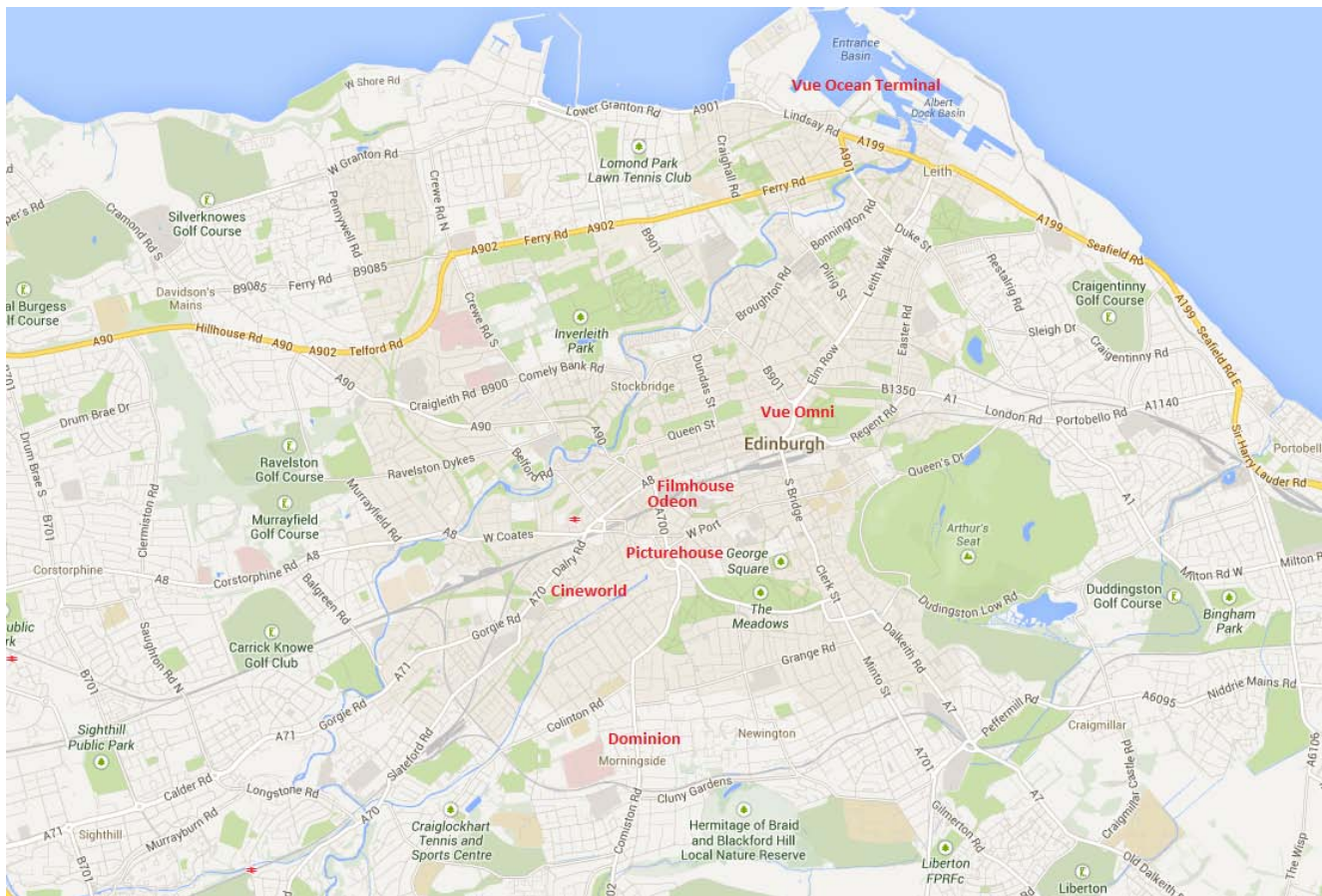
## Clapham



Source: CC analysis.



# Edinburgh



*Source:* CC analysis.

FIGURE 7

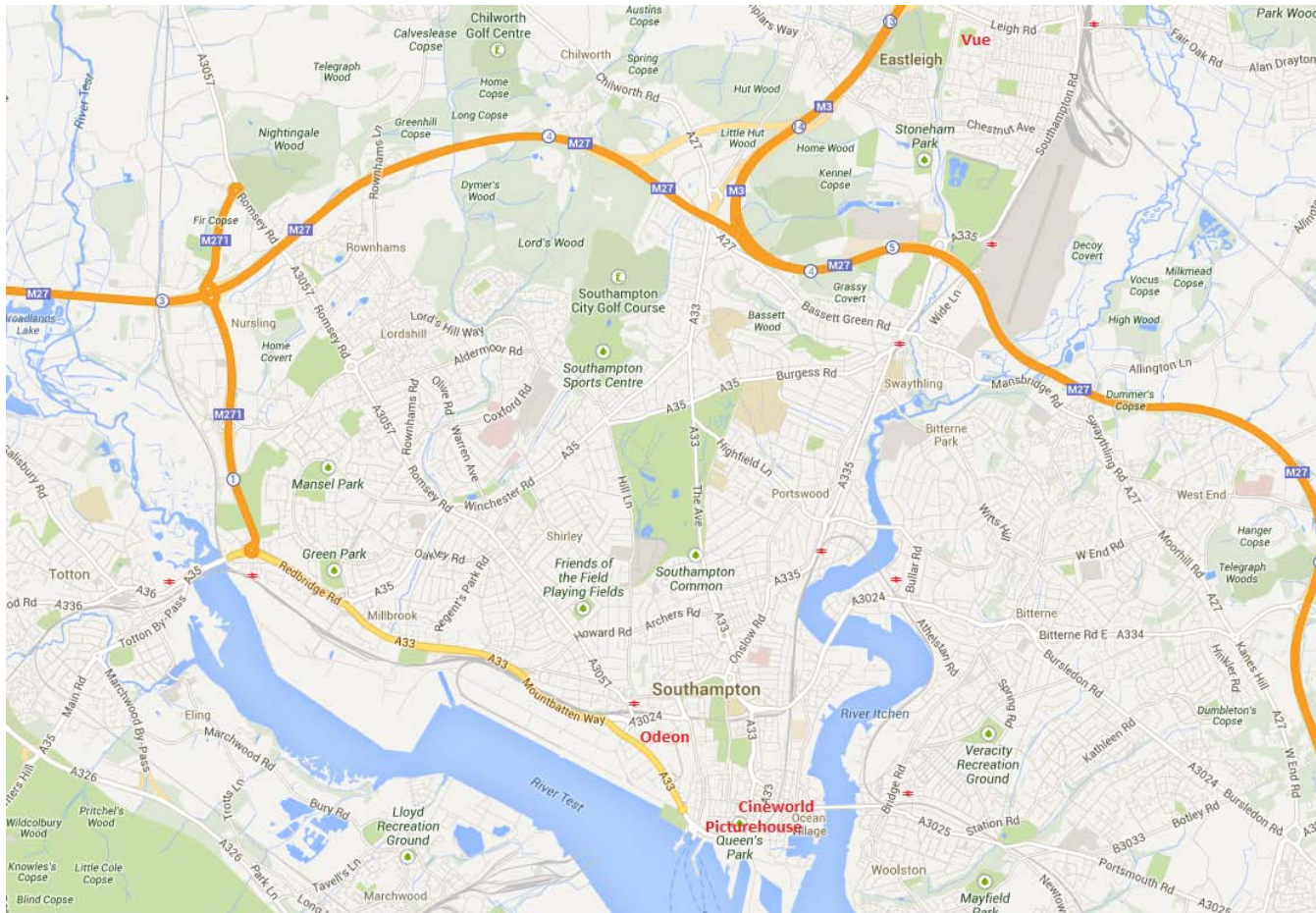
## Greenwich



Source: CC analysis.



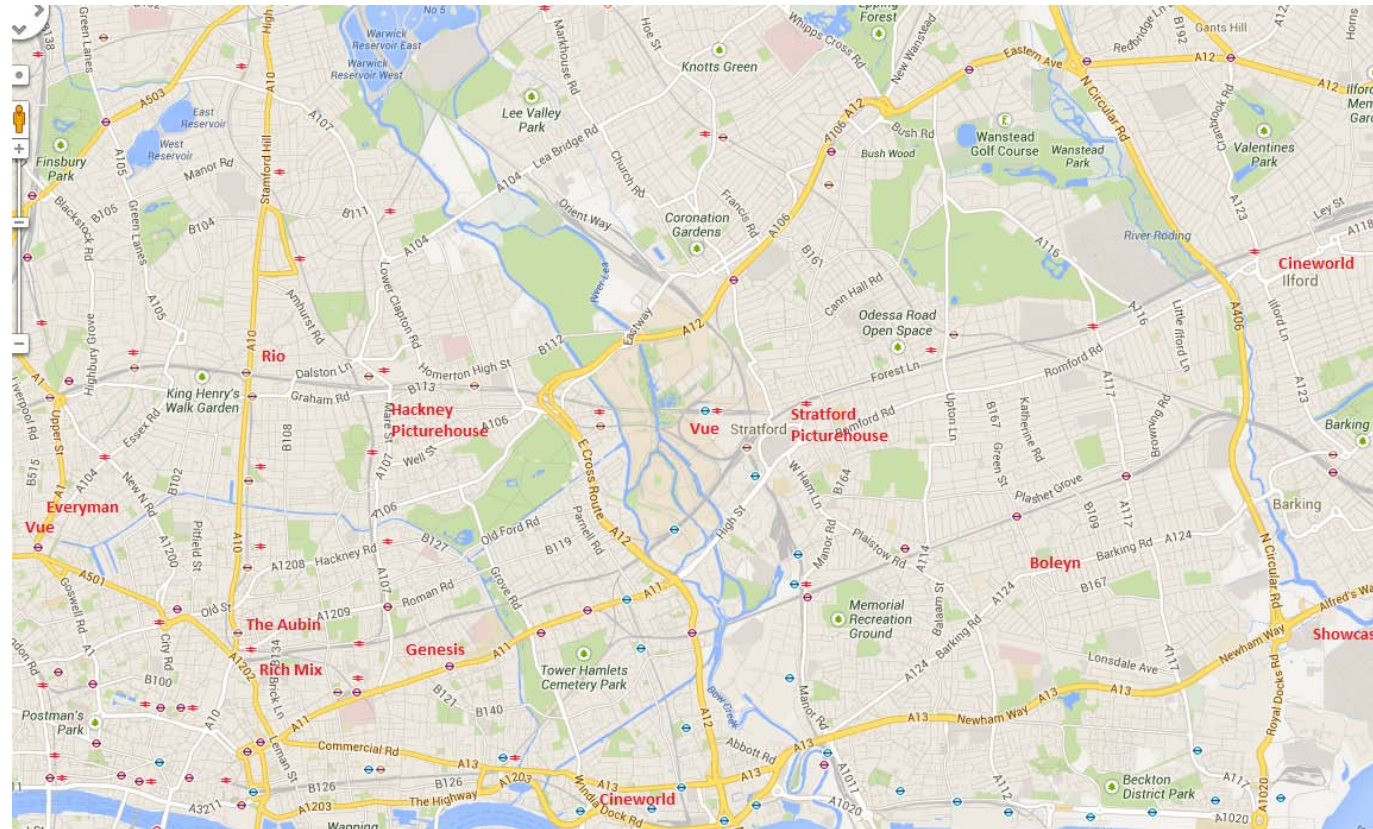
## Southampton



Source: CC analysis.

FIGURE 9

**Stratford**



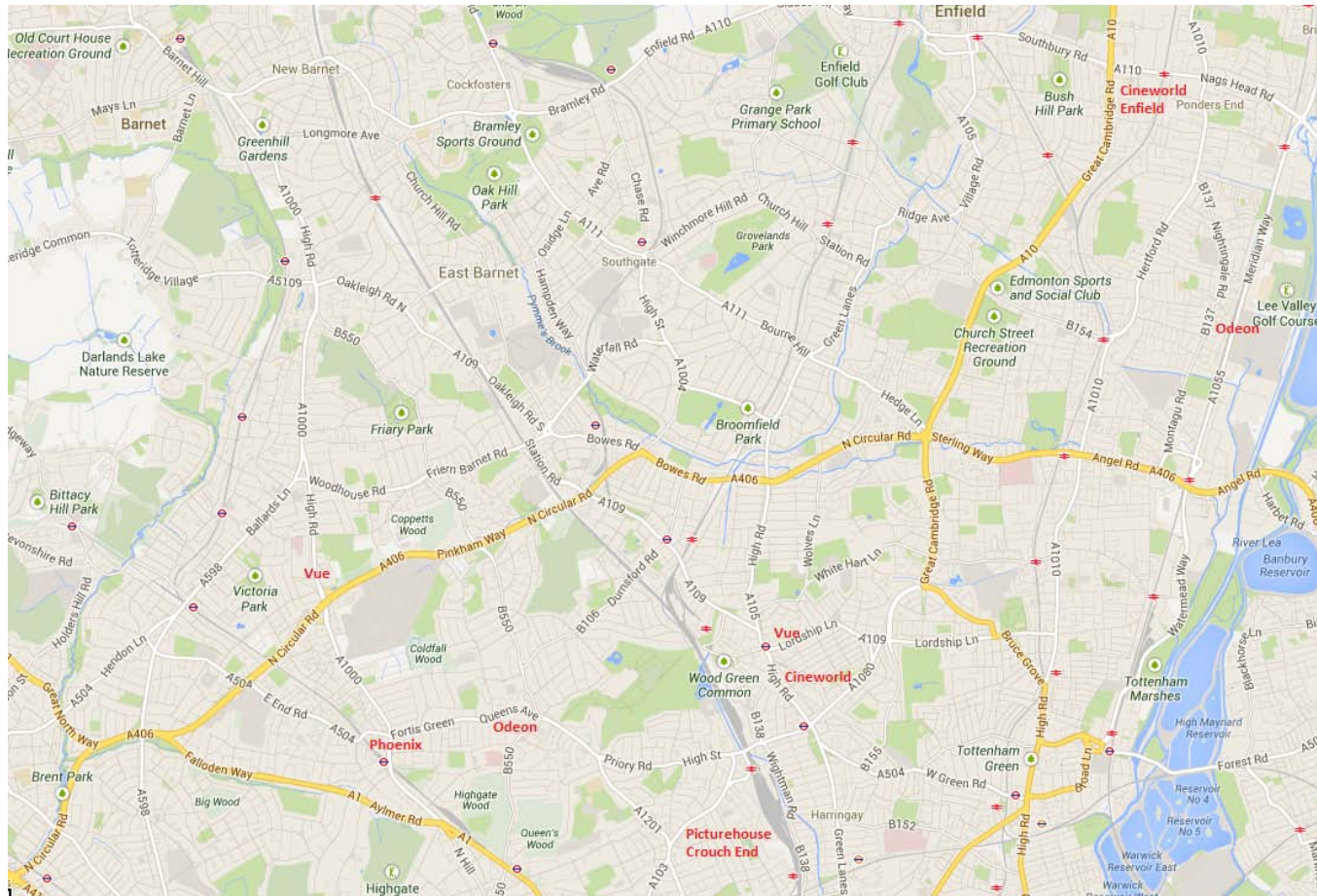
Source: CC analysis.

## Theory of Harm 2 maps



FIGURE 1

Enfield



Source: CC analysis.

FIGURE 2



*Source:* CC analysis.

FIGURE 3



*Source:* CC analysis.

FIGURE 4



*Source:* CC analysis.

## Glossary

<b>3D screen/film</b>	Three-dimensional screen/film. Technology that enhances the illusion of depth perception.
<b>Alternative content</b>	Non-feature film programming in cinemas, such as the live screening of events happening elsewhere (eg operas, ballets, sporting events and pop music concerts).
<b>AMC</b>	AMC Theatres of UK Ltd.
<b>Apollo</b>	Apollo Cinemas Limited. A cinema chain acquired by Vue in 2012.
<b>Art-house cinema</b>	Cinema that shows exclusively <b>specialized films</b> .
<b>Arts Alliance Advisors</b>	A division of Hoegh Capital Partners.
<b>BFI</b>	British Film Institute.
<b>BFI IMAX</b>	Cinema situated at London Waterloo. It is owned by the BFI and operated by Odeon.
<b>CC</b>	Competition Commission.
<b>CC Survey</b>	Survey of <b>Cineworld</b> and <b>Picturehouse</b> customers carried out by GfK on behalf of the <b>CC</b> .
<b>Cinema de Lux</b>	A sub-brand of <b>Showcase</b> cinemas launched 2008, currently three sites in Bristol, Derby and Leicester.
<b>Cinema exhibitor</b>	Operator of a cinema or a chain of cinemas.
<b>Cineworld</b>	Cineworld Group plc.
<b>City Screen Limited</b>	Cinema group that owns the <b>Picturehouse</b> [brand]. Throughout this report, we refer to <b>Picturehouse</b> .
<b>Compass Lexecon</b>	Compass Lexecon LLC, a wholly owned subsidiary of FTI Consulting, Inc. Advisers to Cineworld and Picturehouse.
<b>Cornerhouse</b>	Trading name of the cinema operated by Greater Manchester Arts Centre Ltd.
<b>CSV</b>	City Screen (Virtual) Limited.
<b>Curzon</b>	Curzon Cinemas Limited.
<b>Digital Cinema Media Limited</b>	A joint venture company between <b>Cineworld</b> and <b>Odeon</b> that sells advertising time on cinema screens to other cinema exhibitors.
<b>Digitization</b>	The introduction of digital technology to distribute and project content to cinemas.

<b>Distributor</b>	A company or organization that rents (or 'distributes') films to <b>exhibitors</b> .
<b>Diversion ratio</b>	The proportion of sales lost by one product that is instead 'diverted to' another product.
<b>Drive-time</b>	Time it takes to drive between two points using road speed estimates provided by Higher Mapping Solutions.
<b>EBIT</b>	Earnings before interest and tax, also known as operating profit.
<b>EBITDA</b>	Earnings before interest, tax, depreciation and amortization.
<b>Empire</b>	Empire Cinemas Limited.
<b>Everyman</b>	Everyman Media Group Ltd.
<b>Fascia</b>	A multiple <b>cinema exhibitor</b> , for example <b>Vue</b> and <b>Odeon</b> have multiple fascias (units) in an area.
<b>FDA</b>	Film Distributors' Association Ltd.
<b>GBOR</b>	Gross box office revenue.
<b>GfK</b>	GfK NOP Consumer & Retail.
<b>GUPPI</b>	Gross Upward Pricing Pressure Index.
<b>IMAX</b>	A film format and a set of cinema projection standards that enables the recording and display of larger images than conventional film systems.
<b>Independent cinema</b>	A stand-alone cinema, not part of a chain of cinemas.
<b>Isochrone</b>	A line joining points of equal travel time (usually drive-time) from a given point. Where the given point is a cinema, the isochrone is known as a cinema-centred isochrone, and where the given point is a centre of population, the isochrone is known as a population-centred isochrone.
<b>Leisure pound</b>	Disposable income spent by the public on leisure activities.
<b>Major operators of multiplexes</b>	Cineworld, Odeon and Vue.
<b>Multiplex</b>	A purpose-built cinema with five or more screens. Multiplexes are usually located in out-of-town sites with parking and close to food outlets.
<b>National Theatre Live</b>	A project to broadcast live theatre performances to cinemas in the UK and elsewhere.

<b>Odeon</b>	Odeon & UCI Cinemas Holdings Ltd. A <b>cinema exhibitor</b> acquired by <b>Terra Firma</b> in 2004.
<b>Off-date</b>	The exhibition of a film where its first showing is after its release date (normally at least a week after its release date).
<b>OFT</b>	Office of Fair Trading.
<b>OLS</b>	Ordinary least square.
<b>Parties' Survey</b>	Online survey of Picturehouse customers carried out by the parties' between 31 January and 4 February 2013.
<b>Picturehouse</b>	Brand of cinema chain, wholly owned by <b>City Screen Limited</b> . We use this term throughout the report for <b>City Screen Limited</b> and its subsidiaries.
<b>Scene</b>	A sub-brand of <b>Vue</b> launched 2010, currently only available at <b>Westfield London</b> .
<b>Showcase</b>	Showcase Cinemas. A <b>cinema exhibitor</b> owned by National Amusements (UK) Ltd.
<b>Showroom Cinema</b>	The trading name of the cinema owned by Sheffield Media & Exhibition Centre Ltd.
<b>SLC</b>	Substantial lessening of competition.
<b>Specialized film</b>	Category of film that includes foreign language and subtitled films, feature documentaries, art-house productions and films aimed at niche audiences.
<b>Terra Firma</b>	Terra Firma Investments (GP) 2 Ltd, owner of <b>Odeon</b> since September 2004. Acquired <b>UCI</b> in October 2004.
<b>The Act</b>	Enterprise Act 2002.
<b>The Screening rooms</b>	Sub-brand of <b>Cineworld</b> launched in 2011, which currently includes one site in Cheltenham.
<b>UCI</b>	UCI UK Limited, acquired by <b>Terra Firma</b> in October 2004. Still operating under UCI.
<b>UK Film Council</b>	Non-departmental public body set up in 2000 to develop and promote the film industry in the UK. It closed in 2011.
<b>Vue</b>	Vue Entertainment Holdings (UK) Limited.
<b>Watershed</b>	Independent cinema in Bristol (registered as a charity).
<b>Westfield London</b>	Shopping centre in Shepherd's Bush, West London.