

Thomson price index

1. We calculated a price index using the data set received from Thomson.¹ The index shows the average price change that an advertiser would have faced if the same bundle of products had been bought in two consecutive years. The methodology used to calculate the index is explained in Annex A.

FIGURE 1

Thomson price index (all items)*

[✂]

Source: Thomson data; CC calculations.

TABLE 1 Yell price cap and Thomson price index data

	1999	2000	2001	2002	2003	2004	2005
Yell price cap	100	101	101	96	93	91	87
Thomson price index	[✂]

Source: Thomson data; CC calculations.

2. As Figure 1 shows, Thomson's realized prices² in *Thomson Local* directories have fallen faster than the price cap year on year between 1999 and 2005. There appears to be a relationship between the price cap imposed on Yell by the Yell undertakings and the average rate of price change shown by the Thomson price index: when the price control was tightened³ actual prices fell more quickly. The fact that Thomson's prices have fallen faster than the Yell price cap together with the fact that the rate of change of prices is sensitive to the Yell price cap indicates that Thomson's prices are influenced both by the Yell price cap and by other factors.
3. Figure 2 shows the percentage change in the price cap and Thomson price index compared with the previous year. These are the figures used to generate Figure 1. Thomson's prices have fallen by more than the Yell price cap in every year.

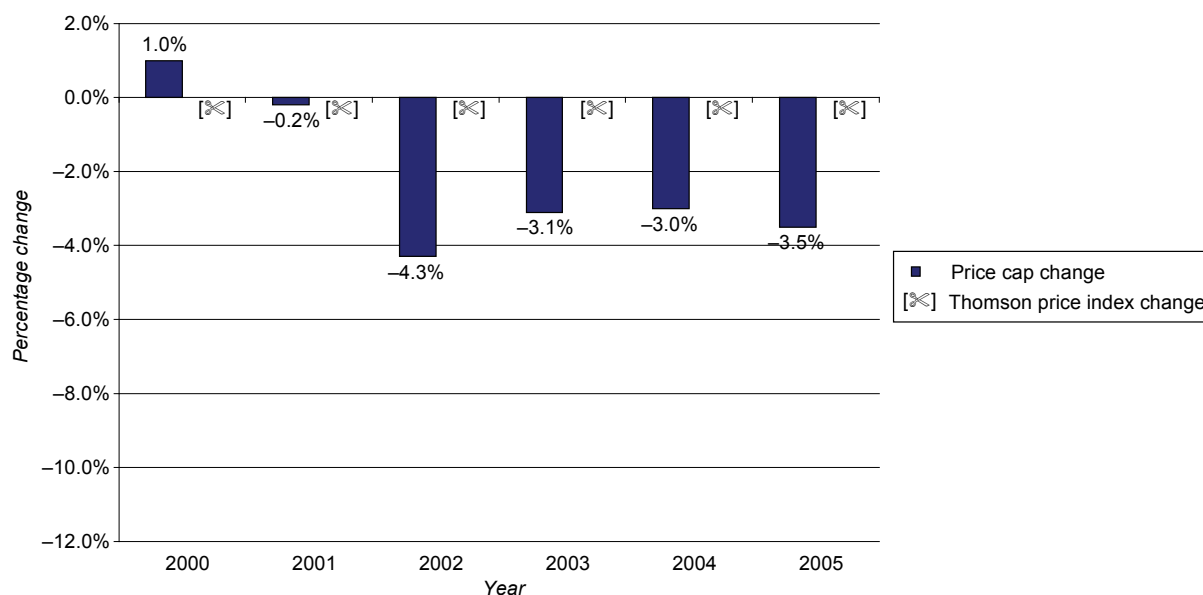
¹The data set contains information on Thomson's advertising sales (print classified) between 1999 and 2005. Thomson has a calendar year publishing cycle. The 2005 data does not represent a complete year.

²The Thomson 'prices' used are the average revenue per advertisement for particular advertisement types.

³The price cap (on Yell) was tightened from RPI-2 to RPI-6 following the OFT review in 2001.

FIGURE 2

Average percentage change in prices*



Source: Thomson data; CC calculations.

*Price change compared with previous year. Nominal figures are used. The price regulation was amended in May 2001, tightening from RPI-2 to RPI-6 from 1 January 2002.

4. We generated a price index for colour advertisements; this is presented in Table 2.

TABLE 2 Yell price cap, Thomson price index (all products), Thomson price index (colour products only)

	1999	2000	2001	2002	2003	2004	2005
Yell price cap	100	101	101	96	93	91	87
Thomson price index (all products)	100	[✂]
Thomson price index* (colour items only)	100						†

Source: Thomson data; CC calculations.

*Only prices and price changes relating to colour advertisements are used in this index, which has produced a 'colour only' weighting of products (see Annex A for an explanation of weighting).

†Figure for 2005 does not represent a full calendar year.

5. Table 2 shows that the colour index falls more rapidly than the all products index. This was supported by work undertaken by Thomson itself and submitted to us during the course of the investigation.⁴ Thomson's 'colour premium'—the difference between the prices of similarly sized full colour and monochrome products—is shown in Figure 3; it has fallen between 1999 and 2005. This fact explains the faster fall in colour prices shown by the Thomson colour index.

⁴The Thomson work showed relatively large decreases in the prices of colour products.

FIGURE 3

Thomson colour premium*



Source: Thomson data; CC calculations.

*Calculated as the difference between the average price (in each year) of a monochrome product compared with a full colour product. For example, Thomson's 75mm 'D1' advertisements are available in full colour (Thomson's name for this type of advertisement is D1F) and in monochrome (Thomson's name for this type of advertisement is D1); the D1 colour premium = Average price (D1F) – Average price (D1).

Note: Guide to key: D1 = 75mm display; D2 = 112mm display; D3 = 150mm display; HP = Half Page 125mm display; FP = Full page 255mm display.

6. Annex A presents the methodology used to calculate the price index.
7. We examined Thomson price changes by *Thomson Local* directory. In all cases the total price change (1999 to 2005) exceeded the total Yell price cap price change.⁵The price decreases ranged from [✂] per cent to [✂] per cent.

⁵Total price cap price change = 17.1 per cent.

Methodology

1. The price indices presented are calculated using the average percentage price change for each year. The percentage price change is calculated as the ratio of the weighted average price change to the weighted average initial price.
2. The 'prices' that are used are average revenues per advertisement type. An advertisement type is defined for the purposes of this analysis by reference to the size and colour of an advertisement and the directory that an advertisement is placed in. Letting r refer to revenues and n to number of advertisements, and subscript i refer to advertisement types and t to time periods, prices are given by:

$$p_{it} = \frac{r_{it}}{n_{it}}$$

3. Price changes are only calculated for advertisement types that are present in both periods. In the price indices presented in this annex, advertisements in a newly re-scoped book are treated as new products and hence no price change is calculated between comparable old (pre-re-scope) and new (post-re-scope) products.
4. The CC price change is derived using the following formula:

$$\text{Change}\% = \frac{\sum (p_{it} - p_{it-1}) \times w_{it-1}}{\sum p_{it-1} \times w_{it-1}}$$

5. The weighted average price change over two consecutive periods divided by the weighted average price in the first period gives the average percentage price change.
6. The weights that are used in the indices presented in the main section of this paper are based on the number of advertisements present in that type. So the weight given to the price (and price change) of an individual advertisement type is given by:

$$w_{it} = \frac{n_{it}}{\sum n_{it}}$$

7. Other weighting assumptions could also be used.

TABLE 1 Index calculation

	1999	2000	2001	2002	2003	2004	2005
Advertisements							
Total net revenue (£m)							
Number weighted average price (£)							
Number weighted average price change (£)				×			
Percentage price change (number weights) (%)							

Source: Thomson data; CC calculations.