

STATUTORY AUDIT SERVICES MARKET INVESTIGATION

Evidence on trends in audit fees

Introduction and initial views

1. In their responses to the provisional findings (PFs), parties argued that observed trends in fees per hour were indicative of competitive pressures in the audit market. PwC said that the observed 19 per cent decrease in fee per hour in 2005 prices between 2006 and 2011 indicated strong pressure on audit prices.¹
2. Deloitte said that this decrease was consistent with its experience that companies were very effective at negotiating audit fees.² KPMG said that the substantial decline in audit fees in 2005 prices combined with the pattern of engagement profitability remaining broadly stable suggested that firms had been successful in reducing their costs and had passed these reductions on to clients.³
3. The parties made two arguments. PwC's⁴ and KPMG's point was that engagement level costs had fallen and that these reductions had resulted in lower fees, a cost pass-through argument. Deloitte's point was that the reduction in fees had resulted in lower profits, consistent with intense competition.
4. In a competitive market we expect reductions in marginal costs to be passed on to customers. However, this could also be observed in a situation where suppliers have market power. In that case we would expect some increase in profits as audit firms are not forced to pass on all of the decrease in costs to clients. We therefore want to consider whether any reduction in fees was associated with a constant or falling gross margin.

¹ See [Annex 1 to PwC's response to the provisional findings and notice of possible remedies](#), paragraph 10(a).

² See [Deloitte's response to the provisional findings](#), paragraph 5.2(d).

³ See [KPMG's response to the provisional findings](#), paragraph 2.4.3.2.

⁴ See [Annex 1 to PwC's response to the provisional findings and notice of possible remedies](#), paragraph 17.

5. We consider that cost reductions driven by firms' efforts to lower costs (rather than exogenous factors such as changes in regulation) which firms have passed on to customers are a more powerful indicator of a competitive market. Such cost reductions might be driven by a reduction in the cost per hour (eg seniority of staff doing the work) and/or a reduction in total hours (volume of work).
6. In this paper we consider the evidence for this based on our analysis of the public and engagement datasets,⁵ both at an industry and firm level. We review the data on trends in total audit engagement fees and fees per hour in 2005 prices, and engagement hours.
7. As an alternative to deflating the fees, we evaluate the average fees per hour in nominal terms relative to the development of average staff costs per hour in nominal terms. From those two variables we also calculate a simple percentage gross margin per hour.⁶
8. We found:
 - (a) audit fees in 2005 prices increased over the period 2001 to 2010. We do not have sufficient information to analyse how the fees per hour or the firms' gross margin developed over this period;
 - (b) more detailed information for the years 2006 to 2011 indicated that the fees per hour in 2005 prices decreased over this period. This is the case for both the FTSE 100 and FTSE 250 companies, and for PwC, Deloitte, KPMG, and EY;
 - (c) in nominal terms the fee per hour remained roughly stable from 2006 to 2011, as did hourly staff costs in nominal terms (the most important cost factor). As a result a simple measure of the gross margin per hour remained roughly stable;

⁵ See the PFs, [Appendix 6](#), for a complete description of these datasets. An important difference between these datasets is that the public dataset only records companies' total audit fee, whereas the engagement dataset contains detail on the UK audit fee and the related amount of engagement hours by staff grade.

⁶ As this measure is expressed as a percentage of the hourly fee, it is not affected by inflation.

- (d) however, as the average amount of engagement hours for FTSE 250 engagements dropped, we expect that total profitability for firms on these engagements dropped (ie not the relative contribution per hour, but the total amount of profits). We currently cannot explain with certainty what is driving this decrease; and
- (e) there is no strong evidence for a reduction in the nominal cost per hour, or the pass-through of such an efficiency. However, the results do suggest that any efficiency gains leading to a reduction in the average number of hours per engagement may have benefited companies.

Structure of the paper

9. The main data investigated for this paper is the engagement dataset. We focused on a sample of FTSE 350 engagements, from which we removed those engagements with the smallest and largest 5 per cent⁷ of fees per hour per year and firm. Based on this data we consider the following core variables:
- (a) *Engagement fees*: average total amount of fees per engagement across the set of engagements considered.
 - (b) *Engagement hours*: average number of hours per engagement across the set of engagements considered.
 - (c) *Fee per hour*: average engagement fee per hour across the set of engagements considered, the fee per hour is calculated by dividing the engagement fees by engagement hours separately for each engagement.
 - (d) *Staff costs per hour*: calculation is explained in paragraphs 30 to 32.
 - (e) *Gross margin*: calculation is explained in paragraph 33.

⁷ We excluded the smallest and largest 5 per cent to remove any extreme values of fee per hour which could distort the average. The sample used for the numbers presented in the descriptive statistics (the PFs, [Appendix 5](#)) already excluded observations where the market segment was blank and for which revenue was missing or negative. This was the starting sample for the current analysis.

10. In this paper we first analyse industry level trends, considering the FTSE 350, FTSE 100 and FTSE 250 as a whole. Second, we consider individual audit firm trends.

Both sections are organized as follows. We set out:

- (a) total fees in 2005 prices—industry dataset;
- (b) fees per hour in 2005 prices—engagement dataset;
- (c) fees per hour in 2005 prices—non-switching companies in the engagement dataset;
- (d) fees per hour in nominal terms compared with costs;
- (e) composition changes that might affect the level of costs and fees (on the industry level only); and
- (f) our initial views.

Trends—industry level

Total fees in 2005 prices—industry dataset

11. Table 1 presents the mean, median, minimum and maximum total audit and audit-related fees we found for FTSE 350 companies from the public dataset. We did not include 2011 data due to an incomplete list of companies for this year. Table 1 also presents index values for the mean and median audit fees, taking the value in 2001=100 to illustrate how the variables change over time.⁸

TABLE 1 Summary statistics of total audit fees in 2005 prices, FTSE 350 companies 2001–2010

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Audit fee (£'000)										
Mean	1,337	1,405	1,469	1,672	1,934	2,050	1,985	2,084	2,113	2,037
Median	461	519	513	604	693	672	656	638	548	568
Min	8	8	8	10	10	8	6	16	16	14
Max	24,120	33,903	28,775	33,108	41,931	40,385	36,723	39,269	41,215	44,521
Index value (2001=100)										
Mean	100	105	110	125	145	153	148	156	158	152
Median	100	113	111	131	150	146	142	138	119	123

Source: CC.

⁸ The sample used from the public dataset excluded observations with a missing or negative entry for the audit fee.

12. Table 1 shows that over the period 2001 to 2010 both median and mean total audit fees in 2005 prices increased, with 23 and 52 per cent respectively. The mean fee increased until 2009. The median fee peaked in 2005, after which a decline set in. The engagement dataset will allow us to investigate this decline in more detail.
13. PwC said that there had been external factors driving changes in scope over the period 2001 to 2010. In particular it mentioned the introduction of IFRS, new IFRS standards and new auditing standards, and the financial crisis. PwC further pointed out that scope varied very widely between companies within each time period, and that the population of FTSE 350 engagements changed from year to year.
14. Deloitte said that the fee per hour was a better measure of price than total audit fees as it controlled for certain changes in the audit fee. Further, it noted that there was a significant mix effect in the analysis of total audit fees, as well as the impact of changing regulation and complexity.
15. KPMG noted that simply calculating the median audit fee, across all companies, in each year did not provide any information on the trends in audit fees. It said that the identity of the median observation would vary from year to year, as companies changed audit firm and moved in and out of the FTSE350. Further, KPMG said, even if the median observation was the same company, the figures did not control for audit scope which would impact substantially the size of the fee.

Fees per hour in 2005 prices—engagement dataset

16. The analysis of fees per hour was based on the engagement dataset, which contains audit firms' financial information from 2006 to 2011 for their UK business. The list of engagements is complete for 2011, but data is not available before 2006.

17. PwC and Deloitte stated that audit fees per hour in 2005 prices had declined by 19 per cent over the period 2006 to 2011.^{9,10} This is correct, based on the observed average fee per hour in 2005 prices across engagements. Table 2 presents the results published in the PFs.¹¹

TABLE 2 Average engagement hours and fee per hour in 2005 prices, FTSE 350 engagements

	2006	2007	2008	2009	2010	2011	Change 2006–2011 (%)
<i>Hours (n)</i>							
Average	10,895	11,033	10,466	10,089	9,951	10,426	–4.3
5 th percentile	253	324	323	272	271	231	–8.7
95 th percentile	29,924	35,998	34,180	34,137	33,743	35,336	18.1
<i>Fee per hour (£)</i>							
Average	102	95	90	93	85	83	–18.6
5 th percentile	52	46	48	48	41	40	–23.1
95 th percentile	160	176	143	163	141	130	–18.8

Source: CC.

18. On closer inspection, the average fee per hour figure was distorted by a small number of engagements with extreme values which were implausible (for example, greater than £2,000 per hour). We calculated the figures again excluding the highest and lowest 5 per cent of engagements in terms of fee per hour, by year and firm.¹²

19. Table 3 shows the average annual engagement fees, hours and fee per hour for FTSE 350 engagements, excluding those with the highest and lowest fee per hour for each year and firm.

TABLE 3 Average engagement fees, hours and fee per hour in 2005 prices, FTSE 350 engagements (excluding highest and lowest fee per hour engagements)

	2006	2007	2008	2009	2010	2011	Change 2006–2011 %
Fees (£'000)	1,104	1,111	1,012	1,018	907	907	–17.8
Hours (n)	11,674	11,843	11,118	10,764	10,307	11,101	–4.9
Fee per hour (£)	93	92	88	90	83	77	–16.7

Source: CC.

⁹ See Annex 1 to PwC's response to the provisional findings and notice of possible remedies, paragraph 10(a).

¹⁰ See Deloitte's response to the provisional findings, paragraph 5.4.

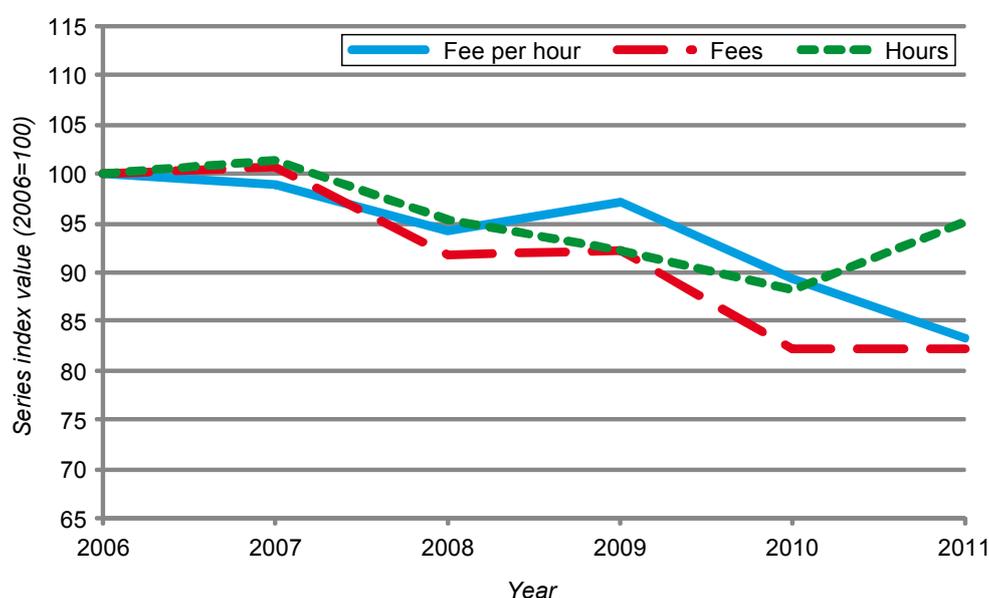
¹¹ See the PFs, Appendix 5, Table 13.

¹² Due to the low number of non-Big-4 firms in the engagement dataset, these were combined into a category 'other' for the determination of outliers.

20. The numbers are comparable to those presented in Table 2. The decrease in hours over the period 2006 to 2011 is slightly greater at 4.9 per cent, whereas the decrease in the fee per hour over the same period is slightly lower at 16.7 per cent. The average engagement fee in 2011 was 17.8 per cent lower than in 2006 (in 2005 prices). Figure 1 shows index values of the average fees, hours, and fees per hour over the considered time period.

FIGURE 1

Index values of average fee per hour and total engagement fees in 2005 prices, and average engagement hours, for FTSE 350 from 2006 to 2011



Source: CC.

Note: Excluding highest and lowest fee per hour engagements.

21. Figure 1 shows that after a slight increase in hours in 2007, average hours decreased each year from 2008 to 2010 before increasing by approximately 6 per cent in 2011. Fees broadly followed a similar trend as hours but did not increase in 2011. The average fee per hour in 2005 prices shows a temporary dip in 2008 and a decline from 2009 to 2011.

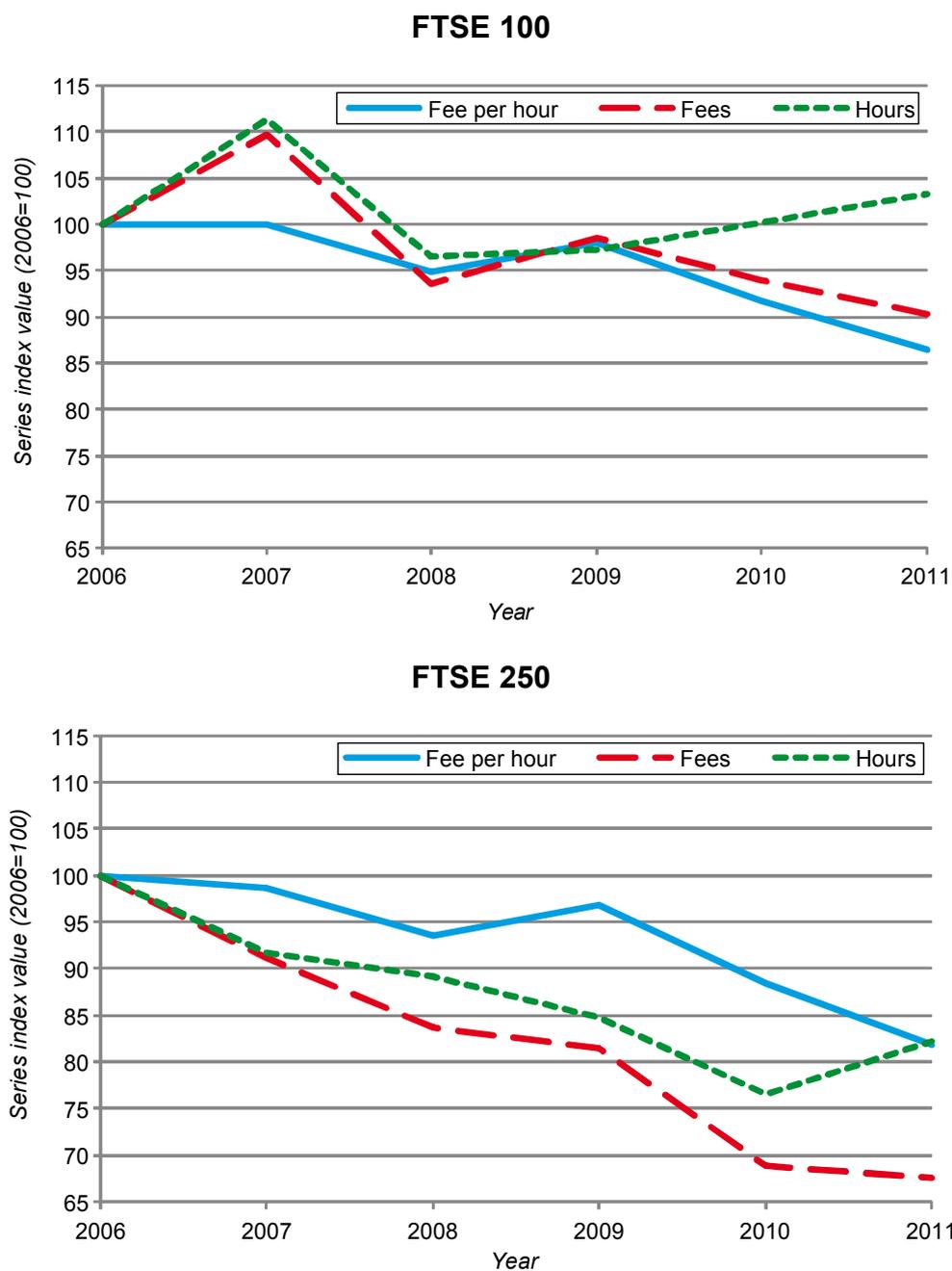
22. Figure 2 provides the same information for FTSE 100 and FTSE 250 engagements separately. The development in fees per hour is very similar for FTSE 100 and the FTSE 250 engagements, as they both show a temporary dip in 2008 and a steady

decline from 2009 to 2011. In 2011 the average fee per hour in 2005 prices is 13.7 per cent lower for FTSE 100 engagements, and 18.2 per cent lower for FTSE 250 engagements. This is consistent with other figures presented in the PFs.¹³

¹³ See the PFs, [Appendix 5](#), Annex 1, Table 53. We calculated an aggregate average fee per hour (those engagements with a higher number of hours are given more weight) to reduce the impact on results of engagements where only a small number of hours and a disproportionately high/low level of fee was recorded. No engagements were excluded from this calculation. For FTSE 100 (FTSE 250) engagements we found an average decline of 12.8 (19.1) per cent.

FIGURE 2

Index values of average fee per hour and total engagement fees in 2005 prices, and average engagement hours, for FTSE 100 and FTSE 250 from 2006 to 2011



Source: CC.

Note: Excluding highest and lowest fee per hour engagements.

23. Among both FTSE 100 and FTSE 250 engagements total fees and hours moved in a similar fashion from 2006 until 2009, but start diverging after that. We consider that this is likely the effect of the declining fees per hour in 2005 prices.

24. Whereas for FTSE100 engagements total hours show a temporary jump in 2007, and a slight increase over the entire period of 3.3 per cent, average hours for FTSE 250 engagements showed a decline of 17.8 per cent from 2006 to 2011. We do not know to what extent the change in hours is caused by changes in audit scope, realized efficiencies, or other factors.

Fees per hour in 2005 prices—non-switching companies in the engagement dataset

25. We investigated the development of engagement fees and hours separately for a stable set of engagements to make sure that the results presented above are not driven by changes in the sample of engagements considered. In addition to that, the data for this set of companies is not affected by changes in auditor,¹⁴ or by moves into or out of the FTSE 350.

26. There were 188 companies in the engagement dataset that have not switched auditor, have fee and hours data for each year from 2006 to 2011, and were in the FTSE 350 over the entire period. Table 4 shows the average engagement fees, hours and fee per hour for these engagements (calculated as a weighted average fee per hour, with hours as the weight). The average engagement fee in 2011 was 14.4 per cent lower than in 2006 (in 2005 prices).

TABLE 4 **Average engagement fees, hours and fee per hour in 2005 prices, engagements that did not switch and were always in the FTSE 350**

	2006	2007	2008	2009	2010	2011	Change 2006–2011 %
Fees (£'000)	1,332	1,406	1,343	1,419	1,357	1,268	–4.8
Hours (n)	13,798	14,529	13,968	14,378	14,857	15,341	11.2
Fee per hour (£)	97	97	96	99	91	83	–14.4

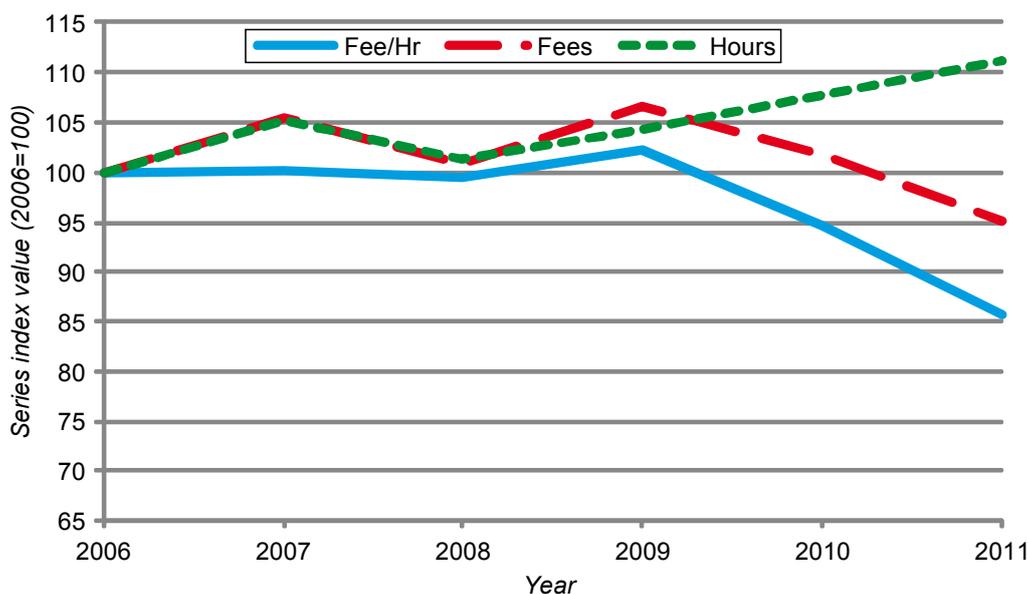
Source: CC.

¹⁴ This could lead to a reduction in total fees, and/or an increased number of hours at beginning of the engagement.

27. Figure 3 displays index values of the average fees, hours, and fee per hour for the engagements that did not switch and were always in the FTSE 350 over the time period considered. The development of the average engagement fee per hour is very similar to those seen in Figures 1 and 2. The development of average amount of engagement hours is more similar to that for the FTSE 100.

FIGURE 3

Index values of average fee per hour and total engagement fees in 2005 prices, and total engagement hours, engagements that did not switch and were in the FTSE 350 from 2006 to 2011



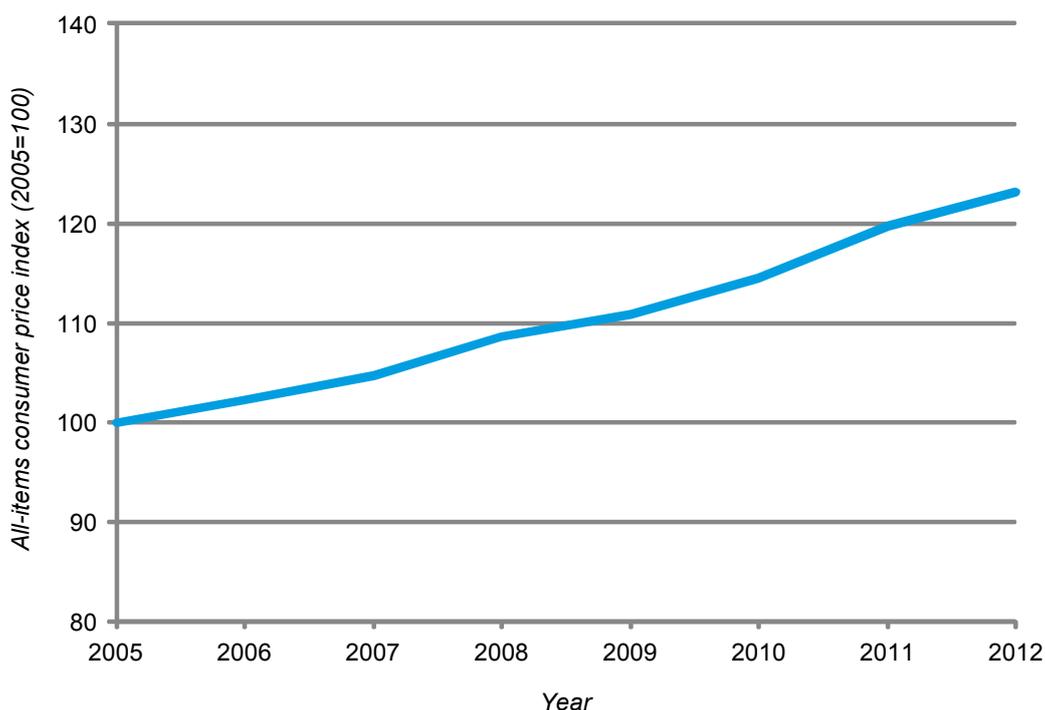
Source: CC.

Fees per hour in nominal terms compared with staff costs

28. The previous sections presented statistics on the development of the average engagement fee per hour in 2005 prices. One reason for presenting these statistics in 2005 prices is that changes in nominal terms might be driven by changes in input costs. Deflating the data with a consumer price index can partially control for that. Figure 4 illustrates the development of the all-items consumer price index.

FIGURE 4

All-items consumer price index, average per year



Source: ONS.

29. Alternatively, we can display the development of fees in nominal terms together with costs. This will show whether the development of fees is similar to that of costs. As for the provision of statutory audit services, labour is the most important input cost; this section will present the development of average audit fees per hour in nominal terms together with the average labour costs per hour in nominal terms.
30. Labour costs were calculated based on information submitted by the firms on hourly staff costs.¹⁵ These were submitted both on the basis of total hours and chargeable¹⁶ hours. For the current analysis we chose to use the staff costs per chargeable hour,

¹⁵ We did not include partner or administrative grades, as we did not receive complete information on these for all firms.

¹⁶ This is the number of hours that staff worked on engagements, but not necessarily the number of hours that were billed to companies.

to take into account the total amount of costs incurred for the provision of audits.¹⁷

We note that this measure will also capture utilization effects.

31. As the staff costs were provided separately for different grades of staff, these needed to be combined to generate a single measure by firm. For each of the Big 4 firms we calculated weighted average staff costs by year based on the hours recorded by that firm in the engagement dataset for each staff grade.¹⁸ This was done for all FTSE 350 engagements combined and for FTSE 100 and FTSE 250 engagements separately.
32. Finally an overall measure of (Big 4) staff costs was calculated by weighting the firms' specific average staff costs with the yearly share of hours accounted for by a firm in the engagement dataset for the relevant index designation. Developments in the thus calculated aggregate staff costs are therefore driven by changes in staff costs per hour for the different grades, changes in the share of hours accounted for by the different grades (staff mix), and changes in the share of hours accounted for by the different firms.
33. In addition to that, we present a simple measure of the gross margin. It is calculated by deducting the average labour cost per hour from the average engagement fee per hour, and expressing the result as a fraction of the average engagement fee per hour. The resulting percentage expresses the gross margin made on each engagement hour.¹⁹ For better comparability with the staff costs, we considered only Big 4 firm engagements from the sample excluding the highest and lowest fee-per-hour engagements.

¹⁷ As the staff costs are averages for the firms' entire assurance practice, these might deviate from the costs for staff that worked on the FTSE 350 engagements we analysed. However, as long as the development over time of costs for staff that work on FTSE 350 engagements is not distinct from the development of average staff costs overall, this should not affect the presented results.

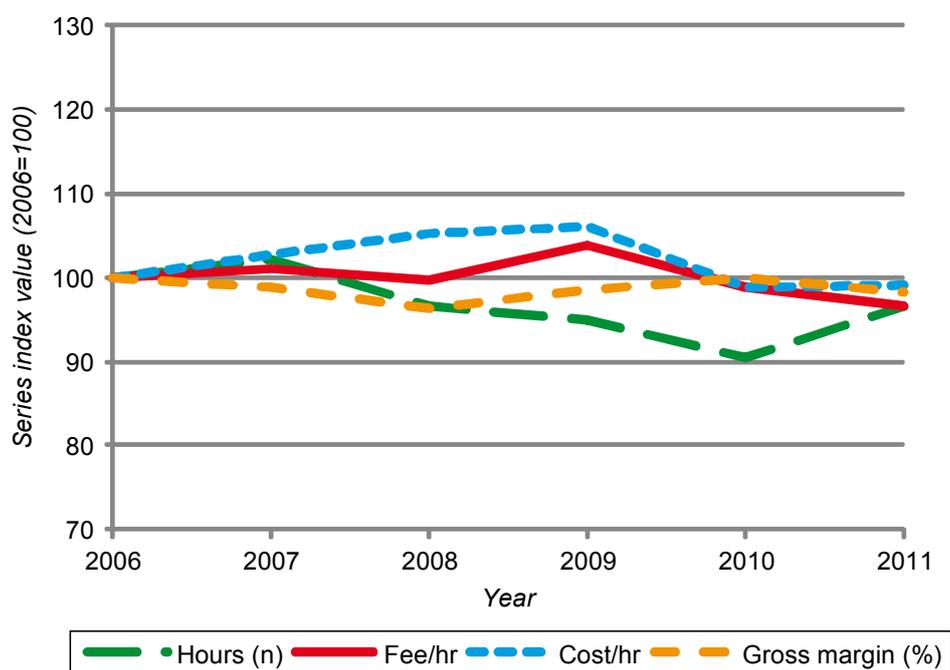
¹⁸ To ensure consistency the same sample was used, excluding the highest and lowest fee-per-hour engagements.

¹⁹ As this measure is expressed as a percentage of the hourly fee, it is not affected by inflation.

34. Figure 5 presents index values of the average amount of hours per engagement, the average fee and cost per hour (both in nominal terms), and the resulting percentage gross margin for Big 4 FTSE 350 engagements. The average fee per hour in nominal terms was rather stable over the period observed, and moves in parallel with staff costs per hour. The two measures diverge only in 2008, potentially due to a change in utilization.²⁰ The result is a broadly stable gross margin.

FIGURE 5

Index values of total engagement hours, average nominal fee and cost per hour, and resulting gross margin for FTSE 350 from 2006 to 2011



Source: CC.

Note: Big 4 engagements only, excluding highest and lowest fee per hour engagements.

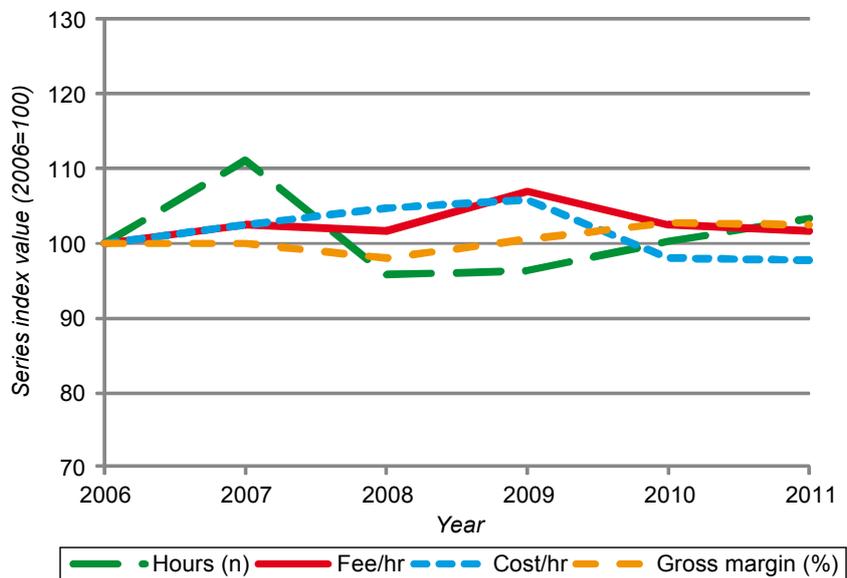
35. Figure 6 shows the same, but breaks down the numbers for FTSE 100 and FTSE 250 engagements separately. The fee per hour for FTSE 100 engagements in nominal terms slightly increased over the period 2006 to 2011. As over the same period the costs per hour slightly dropped, the gross margin increased as well.

²⁰ See the discussion around paragraph 72.

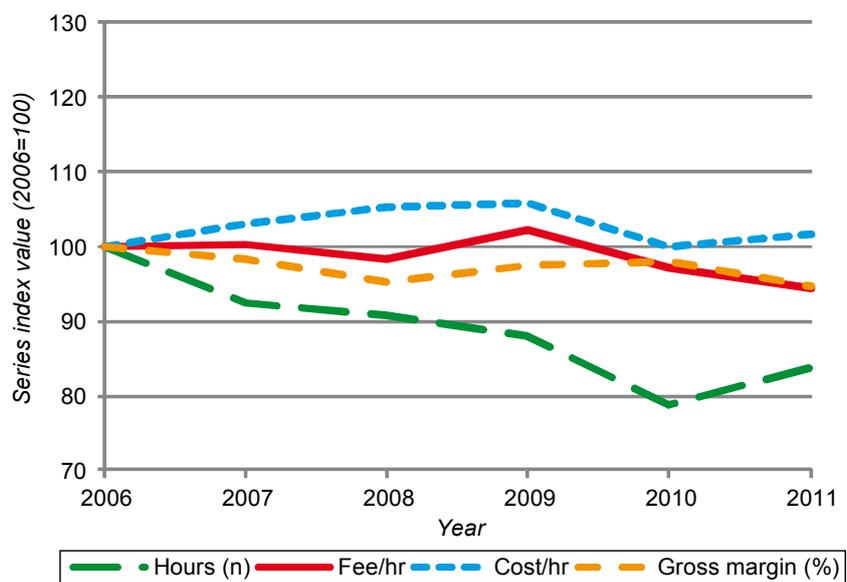
FIGURE 6

Index values of total engagement hours, average nominal fee and cost per hour, and resulting gross margin, for FTSE 100 and FTSE 250 from 2006 to 2011

FTSE 100



FTSE 250



Source: CC.

Note: Big 4 engagements only, excluding highest and lowest fee per hour engagements.

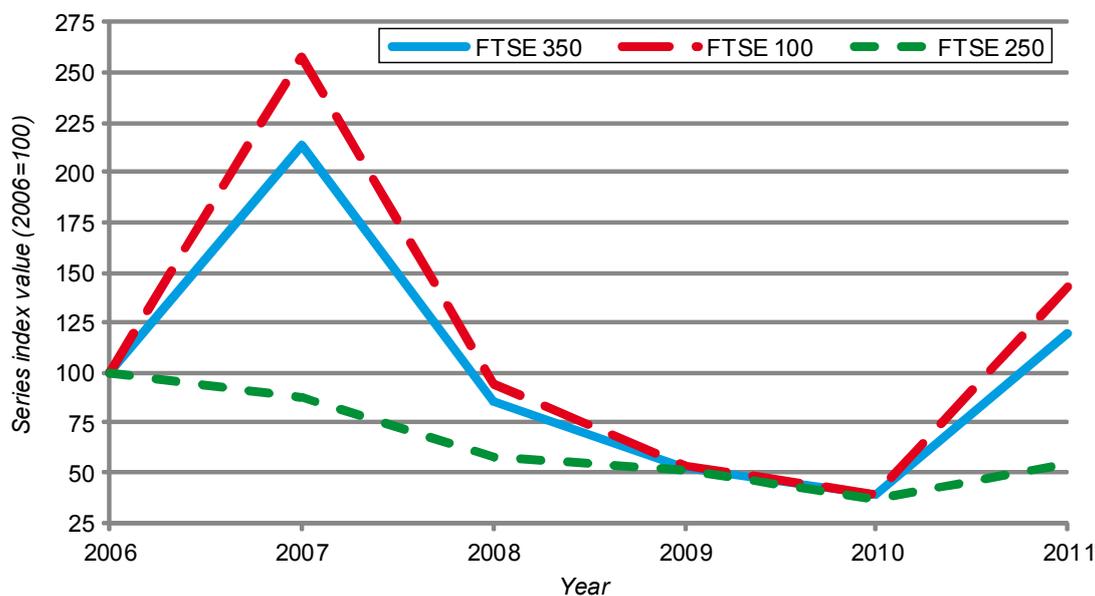
36. For FTSE 250 engagements, the average nominal fee per hour decreased over the period 2006 to 2011. Combined with average nominal costs per hour that slightly increased, this resulted in a decrease in gross margin. Another notable development

is the strong decline in the average amount of hours per engagement, which we do not observe for FTSE 100 engagements.

37. It is not clear to us what is driving the decline. In a hearing, Mazars indicated that it believed that the reduction in non-audit fees compared with audit fees over the past few years was partly due to the dramatic reduction in transactional activities, which were historically a significant area where auditors made their fees.²¹
38. The audit fees analysed do not include the non-audit fees that result from transactional services. However, the average audit may have become less complicated as a result of the lower deal activity, for example through more stability in the audit scope. Figure 7 presents the value of deal activity separately for each index.²²

FIGURE 7

Index values of deal activity for FTSE 350 companies, from 2006 to 2011



Source: Dealogic data received from PwC.

²¹ See [summary of hearing with Mazars](#) held on 1 May 2013, paragraph 26.

²² We combined Dealogic data on deal activity received from PwC with the engagement dataset, and used the same sample of engagements that underlies Figures 6 and 7.

39. FTSE 100 deal activity showed a strong peak in 2007, a decline after that, and an uptick in 2011. We see a less extreme but similar pattern in the average FTSE 100 engagement hours. FTSE 250 deal activity shows a more gradual decline and only a slight uptick in 2011, which is also in line with the general movement of average FTSE 250 engagement hours.

Composition changes that might affect the level of costs and fees

40. The previous section illustrated that over the period 2006 to 2011 the average nominal fee and cost per hour for the Big 4 firms' FTSE 350 engagements remained roughly stable. This section explores whether that might be the result of shifts in the underlying composition of grade levels in the audit teams or the industry mix in the set of engagements analysed.

41. If in reality wages increased, stable aggregate costs per hour could be the result of changes in the staff grade mix across engagements: for example, an increase in the proportion of audit hours accounted for by trainee staff would, all else equal, be expected to lead to a reduction in the cost per hour. Table 5 reports the share of engagement hours by staff grade across all FTSE 350 engagements.

TABLE 5 Average staff grade share of engagement hours, FTSE 350 companies

	<i>per cent</i>					
	2006	2007	2008	2009	2010	2011
Partner	5.2	5.0	4.9	5.3	5.1	5.0
Director	2.4	2.5	2.8	3.0	2.6	2.6
Senior manager	11.4	10.3	10.1	10.5	10.4	10.5
Manager	14.4	14.9	14.0	14.0	12.6	13.8
Other qualified	24.9	22.7	20.3	20.5	23.4	23.8
Trainee	39.7	42.6	45.9	44.8	44.1	42.9
Administrative	2.1	2.0	2.1	2.0	1.8	1.4

Source: CC.

42. We do not observe substantial shifts in staff mix from year to year that could mask underlying increases in nominal staff cost per hour. The proportion of time accounted

for by administrative staff, trainee staff and other qualified staff has remained broadly constant at 67 to 69 per cent of hours.

43. [✂]

44. The average fee per hour across all FTSE 350 engagements is a function of the companies in the index and the average fees per hour they pay. If the share of companies from a sector that, for whatever reason, pays higher fees per hour increases, this could increase the average overall FTSE 350 engagement fee per hour independent of changes in competitive factors.

45. Table 6 below shows the proportion of companies in each industry in the engagement dataset, the proportion of fees accounted for by each industry, the proportion of hours accounted for by each industry and the aggregate industry fee per hour in 2006 and 2011. For example, Banks accounted for 2.8 per cent of engagements in 2006 and 1.5 per cent in 2011, but accounted for 20.2 per cent of audit hours in 2011 compared with 14.9 per cent of audit hours in 2006.

TABLE 6 **Proportion of companies, total recorded fees, total recorded hours and fee per hour across engagements within industry, FTSE 350 companies 2006 and 2011**

	<i>Proportion of FTSE 350 N</i>		<i>Proportion of FTSE 350 Fee</i>		<i>Proportion of FTSE 350 Hrs</i>		<i>Fee per hour (£)</i>	
	<i>%</i>	<i>%</i>	<i>%</i>	<i>%</i>	<i>%</i>	<i>%</i>	<i>2006</i>	<i>2011</i>
	<i>2006</i>	<i>2011</i>	<i>2006</i>	<i>2011</i>	<i>2006</i>	<i>2011</i>	<i>2006</i>	<i>2011</i>
Basic materials	2.2	2.1	3.2	0.7	3.1	0.7	101	92
Banks	2.8	1.5	14.9	20.2	16.3	19.5	88	101
Consumer goods	9.6	7.4	7.9	6.8	8.1	6.7	93	99
Consumer services	21.7	19.3	17.0	14.4	18.3	14.8	90	95
Healthcare	1.9	2.4	2.9	3.1	2.4	2.5	117	117
Industrials	21.1	18.7	15.0	13.3	15.8	15.7	92	82
Insurance	4.6	5.0	8.3	13.1	7.3	12.7	110	100
Mining	2.5	4.5	2.1	3.3	1.8	2.5	118	131
Oil & gas	4.0	5.6	9.4	8.3	7.0	7.3	129	111
Other financial services	18.0	21.7	7.3	7.4	7.0	8.0	102	90
Real estate	1.5	1.8	0.4	0.6	0.4	0.5	86	105
Technology	4.0	5.3	2.6	2.7	2.6	2.5	94	104
Telecommunications	2.2	2.1	3.0	3.0	3.2	3.0	91	96
Utilities	4.0	2.7	5.9	3.2	6.6	3.6	88	85

Source: CC.

Note: Fee-per-hour values are not deflated.

46. Table 6 shows no systematic pattern that could hide an underlying trend in the nominal fee per hour that we do not observe currently. There have only been minor shifts in the proportion of audit hours accounted for by each industry. As a result of this, the average 2011 fee is not sensitive to weighting with the 2006 or the 2011 industry shares.

Initial views—industry level

47. Over the period 2001 to 2010 we found that both median and mean total audit fees in 2005 prices increased, by 23 per cent and 52 per cent respectively. The mean fee increased until 2009. The median fee peaked in 2005, after which a decline set in.
48. Over the period 2006 to 2011 we found that:
- (a) Across FTSE 350 engagements, average fees per hour declined by 16.7 per cent in 2005 prices. For the FTSE 100 engagements this decline was 13.7 per cent, whereas for FTSE 250 engagements it was 18.2 per cent.
 - (b) The results are comparable to those reported in the PFs and those obtained for a stable sample of companies.
 - (c) When investigating the development of average fees per hour in nominal terms, it appeared that these have been roughly stable. In addition to that, average staff costs per hour have remained roughly stable in nominal terms as well.
 - (d) Analysis of the potential drivers of aggregate average staff costs and fees per hour, such as the staff grade mix in the audit teams and the industry mix in the analysed engagements, do not suggest conditions have changed markedly.
 - (e) This means that the decreasing fee per hour in 2005 prices was almost completely driven by deflating the numbers. The staff cost development shows that a general consumer price index might not be the most suitable deflator.
 - (f) We observe a large decline in the amount of average engagement hours for FTSE 250 engagements, which will affect total profitability for firms (ie not the

relative contribution per hour, but the total amount of profits). We currently cannot explain with certainty what drove that. The drop might include efficiency gains achieved by the firms.

Trends—firm level

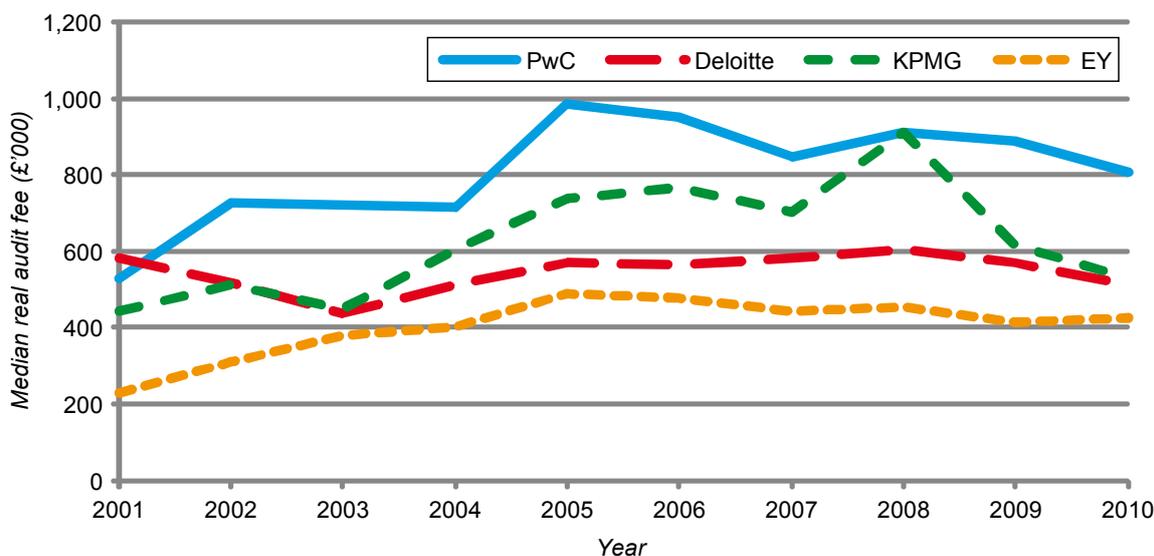
49. In the section above we considered the evolution of engagement fees, hours and fees per hour at industry level (FTSE 350, FTSE 100 and FTSE 250). In this section we consider whether there are differences between the Big 4 firms.

Total fees in 2005 prices—industry dataset

50. Figure 8 below shows the median total audit fee we found across firms' FTSE 350 engagements over time.²³ Full details (as in Table 1) are presented in [Appendix A](#).

FIGURE 8

Median total audit fee in 2005 prices, FTSE 350 engagements 2001 to 2010



Source: CC.

51. We found the median total fee of Deloitte and KPMG peaked in 2008 before decreasing in the next two years. The median total fee of PwC and EY peaked in 2005. EY, KPMG and PwC increased their median total fee in 2005 prices over the

²³ The sample used from the public dataset excluded observations with a missing or negative entry for the audit fee.

period 2001 to 2010. Deloitte's 2010 median total fee in 2005 prices is lower than that of 2001. However, Deloitte's average total fee increased over the period 2001 to 2010.²⁴

52. We note that EY was not able to verify the accuracy of the data presented in this working paper based on the descriptions we provided. This includes the firm-specific analysis of the public dataset.

Fees per hour in 2005 prices—engagement dataset

53. Figures 9 and 10 show the average fee per hour in 2005 prices by firm for all FTSE 350 engagements together, and for the FTSE 100 and FTSE 250 engagements separately. Paragraph 9 described how the sample of engagements was determined and the fee per hour was calculated.

FIGURE 9

Average fee per hour in 2005 prices, FTSE 350 engagements 2006 to 2011



Source: CC.

FIGURE 10

Average fee per hour in 2005 prices, FTSE 100 and FTSE 250 engagements 2006 to 2011

FTSE 100



FTSE 250



Source: CC.

54. Over the observed period average audit fees per hour in 2005 prices [✂].

²⁴ See [Appendix A](#), Table 1. Deloitte noted that the significant increase in the maximum audit fee was due to the growth of RBS over the last decade. It said that this would impact the reported mean fee and therefore it considered the median to be more representative.

55. We also considered index values of the average engagement fees, hours, and fee per hour jointly for engagements of each Big 4 audit firm. These results are presented separately for each audit firm by Figure 1 in [Appendix A](#).

Fees per hour in 2005 prices—non-switching companies in the engagement dataset

56. As described in paragraph 26 there were 188 FTSE 350 engagements which did not switch auditor, had data for each year from 2006 to 2011, and were in the FTSE 350 over the entire period. We considered the development of average engagement fees, hours, and fee per hour of these engagements for each Big 4 firm. Figure 2 in [Appendix A](#) presents separate charts for each Big 4 audit firm.

57. The pattern for the average audit fee per hour in 2005 prices [].

Fees per hour in nominal terms compared with staff costs

58. As discussed in paragraph 29, an alternative to analysing fees in 2005 prices is considering nominal average fees together with nominal average staff costs. This section does that for each Big 4 firm individually, distinguishing between FTSE 100 and FTSE 250 engagements. Paragraph 9 described how the sample of engagements was determined.

59. The figures present index values of the average amount of hours per engagement, the average fee and cost per hour (both in nominal terms), and the resulting gross margin in per cent. Paragraphs 30 to 33 explained how the measures were calculated.

60. KPMG said that the substantial decline in audit fees in 2005 prices combined with the pattern of engagement profitability remaining broadly stable suggested that firms had

been successful in reducing their costs and had passed these reductions on to clients.²⁵ Figure 11 presents the results for KPMG.

FIGURE 11

Index values of total engagement hours, average nominal fee and cost per hour, and resulting gross margin for FTSE 350 from 2006 to 2011—KPMG

FTSE 100

[✂]

FTSE 250

[✂]

Source: CC.

61. Figure 11 shows that over the observed period KPMG [✂].
62. PwC said that the observed 19 per cent decrease in fee per hour in 2005 prices between 2006 and 2011 indicated strong pressure on audit prices.²⁶ Figure 12 presents the results for PwC.

FIGURE 12

Index values of total engagement hours, average nominal fee and cost per hour, and resulting gross margin for FTSE 350 from 2006 to 2011—PwC

FTSE 100

[✂]

FTSE 250

[✂]

Source: CC.

63. Among both PwC's FTSE 100 and FTSE 250 engagements, [✂]. Average fees per hour in nominal terms for FTSE 250 engagements [✂]. This is consistent with PwC

²⁵ See [KPMG's response to the provisional findings](#), paragraph 2.4.3.2.

²⁶ See [Annex 1 to PwC's response to the provisional findings and notice of possible remedies](#), paragraph 10.

experiencing downward pressure on fees and passing on all of the decrease in costs to clients.

64. [REDACTED]²⁷

65. Deloitte told us that the observed 19 per cent decrease in fee per hour in 2005 prices was consistent with its experience that companies were very effective at negotiating audit fees.²⁸ Figure 13 presents the results for Deloitte.

FIGURE 13

Index values of total engagement hours, average fee and cost per hour, and resulting gross margin for FTSE 350 from 2006 to 2011—Deloitte

FTSE 100

[REDACTED]

FTSE 250

[REDACTED]

Source: CC.

66. Over the observed period Deloitte managed to keep average costs per hour [REDACTED], with a short-lived dip in 2010. The development of average engagement fees per hour is quite different. For FTSE 100 engagements, there is a dip followed by a strong increase until 2009. This leads to a higher gross margin in 2010 and 2011 than in 2006.

67. For FTSE 250 engagements we also see a dip in the average fee per hour in 2007, but a much more moderate increase after that. As a result the gross margin is slightly lower in 2011 than in 2006. For all FTSE 350 engagements the average number of

²⁷ [REDACTED]

²⁸ See [Deloitte's response to the provisional findings](#), paragraph 5.2(d) & 5.4.

hours has decreased over the period 2006 to 2011. Given the small changes in the gross margin per hour, this likely led to a lower absolute profitability.

FIGURE 14

Index values of total engagement hours, average fee and cost per hour, and resulting gross margin for FTSE 350 from 2006 to 2011—EY

FTSE 100

[✂]

FTSE 250

[✂]

Source: CC.

68. Figure 14 shows that for both EY's FTSE 100 and FTSE 250 engagements the average staff costs per hour show [✂]. The average fee per hour shows [✂]. As a result of this the gross margin [✂].
69. For FTSE 100 engagements, [✂] over the period observed. For FTSE 250 engagements we see [✂] in the amount of hours, [✂].

Composition changes that might affect the level of costs

70. The previous section illustrated that [✂]. This section explores whether that might be the result of shifts in the underlying composition of grade levels in the audit teams.
71. For better comparison Figure 15 presents index values of the blended cost per hour for each of the Big 4 firms together. We calculated the blended cost per hour taking a weighted average of each staff grade cost, using the proportion of engagement hours accounted for by each grade in the sample of FTSE 350 engagements as weights.²⁹

²⁹ We did not include partner or administrative grades, as we did not receive complete information on these for all firms.

FIGURE 15

**Index value of blended nominal average hourly staff cost, chargeable hours
2006 to 2011**

[✂]

Source: CC.

72. The blended nominal hourly staff costs for [✂].

FIGURE 16

**Index value of nominal blended average hourly staff cost, total hours
2006 to 2011**

[✂]

Source: CC.

73. [✂]

74. Table 3 in [Appendix B](#) shows the proportion of engagements hours accounted for by grade, separately for each of the Big 4 firms. [✂]

Initial views—firm level

75. For PwC, KPMG and EY we found that the median total audit fees in 2005 prices increased over the period 2001 to 2010. For PwC, Deloitte, KPMG and EY the mean total audit fees increased.³⁰
76. Over the period 2006 to 2011 we found that: [✂].

³⁰ See [Appendix A](#), Table 1.

Total audit and audit-related fees statistics by audit firm

TABLE 1 Summary statistics of total audit fees in 2005 prices, PwC FTSE 350 engagements 2001–2010

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Audit fee (£'000)										
Mean	1,622	1,660	1,721	1,919	2,210	2,685	2,457	2,649	2,854	2,655
Median	531	724	719	715	989	953	847	911	888	808
Min	9	11	12	13	16	16	17	18	18	18
Max	24,120	24,063	28,775	33,108	28,317	40,385	36,723	39,269	40,853	44,521
Index value (2001=100)										
Mean	100	102	106	118	136	166	151	163	176	164
Median	100	136	136	135	186	180	160	172	167	152

Source: CC.

TABLE 2 Summary statistics of total audit fees in 2005 prices, Deloitte FTSE 350 engagements 2001–2010

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Audit fee (£'000)										
Mean	1,212	1,030	1,089	1,290	1,443	1,444	1,419	1,714	1,740	1,484
Median	581	519	435	510	569	566	584	607	567	514
Min	26	21	24	25	19	18	19	20	18	17
Max	6,322	6,919	8,000	12,311	16,733	15,865	16,008	35,251	39,609	28,425
Index value (2001=100)										
Mean	100	85	90	106	119	119	117	141	144	122
Median	100	89	75	88	98	97	101	104	98	88

Source: CC.

TABLE 3 Summary statistics of total audit fees in 2005 prices, KPMG FTSE 350 engagements 2001–2010

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Audit fee (£'000)										
Mean	1,241	1,379	1,470	1,757	2,133	2,171	2,380	2,449	2,155	2,136
Median	445	515	448	605	739	765	704	913	614	531
Min	8	8	8	10	10	14	17	16	16	17
Max	17,813	17,159	22,793	26,942	34,307	30,572	32,957	38,410	41,215	38,744
Index value (2001=100)										
Mean	100	111	118	142	172	175	192	197	174	172
Median	100	116	101	136	166	172	158	205	138	119

Source: CC.

TABLE 4 Summary statistics of total audit fees in 2005 prices, EY FTSE 350 engagements 2001–2010

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Audit fee (£'000)										
Mean	1,187	1,601	1,578	1,685	1,990	1,775	1,670	1,544	1,692	1,927
Median	226	312	379	403	491	480	445	454	415	423
Min	9	9	9	10	16	8	6	16	17	14
Max	17,593	33,903	23,232	28,099	41,931	32,066	30,120	28,857	26,187	26,605
Index value (2001=100)										
Mean	100	135	133	142	168	149	141	130	143	162
Median	100	138	168	178	217	212	197	201	184	187

Source: CC.

FIGURE 1

Index values of average fee per hour and total engagement fees in 2005 prices, and average engagement hours, for FTSE 350 from 2006 to 2011

PwC



Deloitte



KPMG



EY



Source: CC.

FIGURE 2

Index values of average fee per hour and total engagement fees in 2005 prices, and average engagement hours, engagements that did not switch and were in the FTSE 350 from 2006 to 2011

PwC



Deloitte



KPMG



EY



Source: CC.

Audit firm staff grade average hourly costs and index values of hourly cost

TABLE 1 Average audit firm staff costs by grade and index values of staff costs (total hours)

Staff grade rate (£)						Index value of staff grade rate					
2006	2007	2008	2009	2010	2011	2006	2007	2008	2009	2010	2011
[X]											

Source: CC.

TABLE 2 Average audit firm staff costs by grade and index values of costs (chargeable hours)

Staff grade rate (£)						Index value of staff grade rate					
2006	2007	2008	2009	2010	2011	2006	2007	2008	2009	2010	2011
[X]											

Source: CC.

Audit firm FTSE 350 engagement hours accounted for by staff grade

TABLE 3 Proportion of engagements hours accounted for by staff grade

						per cent
2006	2007	2008	2009	2010	2011	
[X]						

Source: CC.