

Investment Consultants Market Investigation

Working paper: Gains from engagement

10 May 2018

This is one of a series of consultative working papers which will be published during the course of the investigation. This paper should be read alongside the [Issues Statement](#) published on 21 September 2017 and other working papers published.

These papers do not form the inquiry group's provisional decision report. The group is carrying forward its information-gathering and analysis work and will proceed to prepare its provisional decision report, which is currently scheduled for publication in July 2018, taking into consideration (among other matters) the evidence obtained, responses to the consultation on the [Issues Statement](#) and responses to the working papers as well as other submissions made to us.

Parties wishing to comment on this paper should send their comments to investmentconsultants@cma.gsi.gov.uk by 24 May 2018.

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The Competition and Markets Authority has excluded from this published version of the working paper information which the inquiry group considers should be excluded having regard to the three considerations set out in section 244 of the Enterprise Act 2002 (specified information: considerations relevant to disclosure). The omissions are indicated by [X].

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Executive Summary

1. This working paper sets out the analysis we have undertaken to examine whether pension schemes which are more engaged with the market receive better outcomes (in terms of price) than those who are less engaged.
2. We first considered parties' submissions and internal documents on issues relevant to how prices are determined. These appear to show that negotiation of fiduciary management (FM) and investment consultancy (IC) fees is a key feature of this industry. Furthermore, they also provide an indication that more engaged schemes are better able to challenge firms' prices, or are more likely to be considered 'at risk' by firms and therefore offered higher quality terms and service.
3. We then undertook a detailed quantitative assessment. Consistent with the analysis set out in our [Trustee Engagement Working Paper](#),¹ our initial analysis of Parties' own data has shown that a significant proportion of pension schemes do not appear to be engaged. We found this was true on at least three measurable indicators: tendering, using a third-party evaluator (TPE), or having a Professional Trustee (PT).
4. There appears to be a wide range in how much different schemes pay, both in FM and IC. Whilst a lot of this variation is attributable to basic characteristics of the service received, such as whether the scheme purchases more services, we have undertaken some analysis which demonstrates that levels of engagement also influence market outcomes in terms of prices.
5. In FM, we have found that, based on a comparison of average 2016 prices, engaged schemes pay lower prices than disengaged schemes. This is also generally true when we compare schemes of similar size and purchasing similar services. Our econometric analysis of this data indicates that, amongst schemes who move into FM with their original IC provider, engaged schemes pay around 25% less than their disengaged counterparts. This result is robust to a wide range of, although not all, sensitivity checks.
6. We also analysed increases in the amount schemes pay when moving into FM, for schemes which originally used that provider for IC services. Our descriptive and econometric analyses indicate that engaged schemes systematically face lower increases in the amounts they pay than disengaged counterparts.

¹ [Investment Consultants Market investigation, Working paper: trustee engagement](#), 12 April 2018.

7. We also undertook an analysis of the amount schemes pay in IC. We found that engaged schemes pay less than disengaged schemes: this is apparent when comparing average prices, and in some simple regressions. However, the econometric results are less robust, and the estimated magnitude of the fee differential smaller, when compared to FM.
8. We have not been in a position to assess other outcomes, such as returns or quality of service, due to data limitations and significant methodological challenges in modelling these. As such, our analysis could understate the extent to which engaged schemes receive better market outcomes than disengaged schemes overall. In any case, we consider that fees are an important market outcome in their own right, and at least for FM, a determinant of net returns.
9. Our emerging findings from this work are that engaged schemes pay significantly less, and disengaged schemes pay significantly more, when schemes transition into FM with the same provider as they used for IC services. This is indicative that the market is not working well for disengaged schemes, or schemes facing barriers to engagement.

Introduction

10. Our [Issues Statement](#) identified a demand and information theory of harm, namely that ‘difficulties in customers’ ability to effectively assess, compare and switch investment consultants result in weak incentives for investment consultants to compete for customers’.² We set out that ‘if customers (the demand side) are not able to effectively shop around, choose and switch products and suppliers, competition will be weak, which is likely to lead to worse outcomes for customers’.³
11. Our [Issues Statement](#) also identified a second theory of harm, namely that features of the supply of fiduciary management services by investment consultancy firms may reduce the quality and/or value for money of services provided to customers.⁴
12. We have undertaken initial analysis to explore these issues and our emerging findings from this analysis are set out in a number of published working papers.⁵ However, these working papers have not sought to quantify the effect of these identified possible features on market outcomes. This working paper sets out our initial work on this question.
13. We have undertaken both qualitative and quantitative work to understand whether there is a link between market outcomes and engagement. We would interpret any such evidence as indicative that, insofar as there are barriers to engagement for some customers, demand side issues are leading to worse outcomes for schemes. In this paper we use ‘engaged customers’ to refer to customers who are willing and able to access information, assess information and act in such a way which secures the best value for them.⁶
14. In the qualitative analysis, we have considered whether there is evidence in firms’ responses and internal documents to support the idea that variation in engagement is linked to variation in outcomes.
15. In the quantitative analysis we have produced a range of statistics which relate to this link. We initially present some descriptive statistics showing that

² CMA [Issues Statement](#), paragraph 43.

³ *ibid*, paragraph 46.

⁴ *ibid*, paragraph 43; The CMA [Issues Statement](#) also sets out a Barriers to Entry based theory of harm which is less linked to engagement related issues and is not therefore covered here.

⁵ In particular, the working papers on [Trustee engagement](#) (12 April 2018); [Supply of fiduciary management services by investment consultancy firms](#) (29 March 2018) and [Information on fees and quality](#) (1 March 2018).

⁶ The access, assess, act framework is set out in our guidance in reference to customers getting a better deal when they are willing and able to “access information about the various offers available in the market; assess these offers to identify the ...service that provides the best value for them; and act on this assessment [for example] by switching to purchasing the good or service from their preferred supplier”; [CC3 Revised](#), paragraph 296.

there is variation in engagement across schemes. The Technical Appendix shows that there also appears to be substantial variation in fees. We then go on to analyse the possible relationship between engagement and outcomes.

16. Our analysis takes two main forms: first, comparisons of whether average prices are lower for engaged than disengaged schemes of similar characteristics, and second, a regression approach which seeks to control for various confounding factors and test the statistical significance of the identified relationships.
17. As noted in the [Supply of fiduciary management services by investment consultancy firms working paper](#),⁷ we have seen some evidence of practices and behaviours that could be consistent with some customers being steered towards the FM services of their incumbent IC, without having applied much competitive pressure on the incumbent firm. As such, we have focussed on schemes using the IC-FM firms in our analysis of FM, and particularly on customers who acquired FM from their existing IC provider. In the IC analysis, we focus on a broad range of suppliers.

Analysis of qualitative information

18. We have undertaken a (limited) analysis of parties' responses to our Market Information Request and internal documents to provide evidence addressing the following high-level questions.
 - (a) How far are pricing and other service factors negotiated or personalised to individual schemes?
 - (b) How far do IC and FM suppliers monitor client levels of engagement? and,
 - (c) Is there evidence that variation in resulting prices and service factors is in general attributable to demand side engagement?
19. Our review has considered views from the whole spectrum of parties who responded to our Market Information Request. Our review of internal documents focussed on the largest three IC-FM providers, namely Aon Hewitt, Mercer and Willis Towers Watson, though we have received only limited evidence from [REDACTED].

⁷ [Working paper on the supply of fiduciary management services by investment consultancy firms](#), 29 March 2018.

Parties' submissions

20. In their responses to the Market Information Request, Parties told us that improvements in terms or discounts may be based on specific characteristics of the service purchased, for example a discount based on the size of the schemes' assets or a discount for purchasing multiple services.
21. In addition to this, although many have standard fees, ICs appeared prepared to negotiate on fees in order to secure appointments, and will revisit fees for existing schemes. These negotiations appear to be initiated both by Parties and by schemes.
22. [REDACTED] told us that 'Clients are able to, and have in practice, exerted downward pressure on fees.'⁸ They provided a number of examples of occasions when schemes had managed to do this:

Table 1: Examples of occasions where [REDACTED] clients have exerted downward pressure on fees

<i>Client</i>	<i>[REDACTED] Example</i>
Client A	'The client negotiated aggressively on fees during the sales process, [REDACTED]
Client B	'...The client had benefitted from a negotiated discount on our fees which was due to expire, i.e. the fees were about to revert to higher levels. [REDACTED]
Client C	'The client [REDACTED] We offered a set of options for the client to choose between...'

Source: [REDACTED] internal documents.

- (a) [REDACTED] told us in the context of its IC services that 'We believe our prices are competitive in the market... that said we operate in a commercial environment and will negotiate with new or existing schemes on charge out rates or project costs related to the scope of work to be undertaken'⁹
- (b) [REDACTED] told us that 'we periodically review the level of fees we charge all schemes and approach any outliers to reduce their fee basis. ... Of course, we are also approached to review fee levels by schemes and/or their independent advisers as well'¹⁰
23. Others also said they negotiate fees, other aspects of service provision, or both together including at schemes' requests. These included [REDACTED],¹¹ [REDACTED],¹² and [REDACTED].¹³

⁸ [REDACTED].
⁹ [REDACTED].
¹⁰ [REDACTED].
¹¹ [REDACTED].
¹² [REDACTED].
¹³ [REDACTED].

24. It appears to be reasonably common for discounts to be given on an ‘in-kind’ basis, rather than as a reduction in the retainer fee. For example, [redacted] told us that ‘[redacted] we decided to offer [redacted] data base access for free for the first year, [redacted]’¹⁴
25. It also appears to be reasonably common for firms to use write-offs where schemes are unhappy with general fee levels or the quality of services they have received.
26. The firms’ responses therefore appear to indicate that negotiations can improve the offering given to schemes. Therefore, at least some of the variation in fees between schemes for a given level of service quality can be attributed to negotiation. If negotiations are less frequent or less successful where schemes are less engaged, a weak demand side may mean that competition may not be functioning effectively.

Parties’ internal documents and processes

27. This evidence is consistent with that which we find in internal documents. It appears that several parties carefully monitor existing schemes, and record information on who they consider to be ‘at risk’ of switching provider.¹⁵ It appears that this process is linked to firm-led negotiations on fees, targeted improvements in service quality, and other efforts to improve outcomes for such schemes. There were references in the documents to concerns that otherwise these schemes would switch.
28. If engagement leads clients to be more likely to be considered ‘at risk’ and therefore to receive better outcomes, this implies that schemes which are not engaged (or who face barriers to engagement) may receive comparatively less favourable outcomes.
29. We set out a summary of the evidence on this monitoring process, and potential links to market outcomes, in what follows.
30. [redacted] told us that they maintain a ‘Clients at Risk’ register which is regularly reviewed for progress by leaders within the business,¹⁶ including at [redacted].¹⁷ Reasons for including schemes mostly relate to service issues, but also

¹⁴ [redacted].

¹⁵ In a more general way, ICs and FMs generally told us that they undertake client surveys and interview processes in order to understand schemes’ perceptions of the service qualities and value for money that they are receiving. Some Parties conduct these anonymously, others in an attributable way.

¹⁶ [redacted].

¹⁷ [redacted].

include upcoming tenders and reviews.¹⁸ Actions to manage risk generally tend [redacted].

31. In the register presented (for FM schemes) [redacted], schemes are assigned a rating of Red, Amber or Green. Red means [redacted].¹⁹
32. Reasons for being 'at risk' appear to include [redacted].²⁰ [redacted].
33. [redacted] appeared to conduct a similar process, at least for its FM schemes. A presentation to the [redacted] contained a list of FM schemes each with a 'risk status' ranging from red to green.²¹ Several of the 'red' and 'amber' risk schemes have notes mentioning that trustees intend to conduct reviews or tenders. In at least one case²² client engagement appeared to be linked to improvements in client outcomes.

[redacted]: 'Trustees looking for savings, largely driven by [redacted], Company advisors' and noted the action 'FM fee was due to rise from [redacted] to [redacted] after 3 years (ie start of 2015), but we have agreed to retain a [redacted] fee'.²³

34. [redacted] also told us that they 'actively collate feedback from schemes and carry out [regular] [redacted] reviews. These involve approx. [redacted] client interviews per year in the UK'.²⁴ [redacted] provided us with the results of these surveys.
35. Overall, the interviews indicate that, whilst [redacted] generally monitors and responds to concerns about its service levels, it monitors the engagement of its customers particularly closely. In some instances, [redacted] appears to have taken actions to improve its offering to customers in response to this engagement:²⁵

18 [redacted].
19 [redacted].
20 [redacted].
21 [redacted].
22 [redacted].
23 [redacted].
24 [redacted].
25 [redacted].

Table 2: Examples of [redacted] taking action to improve its offering to customers in response to engagement.

Customer ID	Column from which information copied	Quote
[redacted]	How to Mitigate the issues	They had said they wanted something that was fairly generic and based on data and information we already had. They were staggered to be quoted £4K although this had been reduced to £3.5k when they had pushed back
[redacted]	SWOT Analysis - Threats ²⁶	Robust tender process will happen in 2019? retention action plan required for next 18 months
[redacted]	SWOT Analysis - Weaknesses	(Linked to a point in an earlier part of interview: where scheme is noted to have “severe financial constraints and [be] carefully looking at all fees”) We have time to find a way to address their fee issue (and perception).
[redacted]	SWOT Analysis – Opportunities	Avoid competitive tender by urgently reviewing team, scope, fees and offering some level of investment to demonstrate our commitment.

Source: [redacted] internal documents

36. In a small number of cases, [redacted] appeared to be preparing the ground with trustees for future tender processes by discussing how to give trustees control over the tender process and suggesting that, at least in the past, other firms have proposed low prices which were not credible.²⁷
37. The survey often noted cross-selling opportunities, often in the ‘SWOT Analysis – Opportunities’ column. Sometimes, these opportunities appeared to be linked to whether a client was perceived as loyal. [redacted].
38. [redacted] told us that they have ‘established a separate team ... to have oversight of client satisfaction and provide more pre-emptive action where a client appears at risk.’²⁸ Results from this program are reported up to the Investment Executive Committee. The information is used to identify trends or themes and deal with these on a wider basis, and also to address issues specific to these schemes.
39. However, [redacted] did not provide us with the internal documents relating to this team/programme, so we have not had the opportunity to review them to understand whether this ‘pre-emptive action’ involves substantially improving its offering.

Emerging findings and next steps

40. It appears from the internal documents we have reviewed that those customers who are more engaged, such as those considering tendering or using a TPE, are in some cases offered improved terms by their investment

²⁶ [redacted].

²⁷ [redacted].

²⁸ [redacted].

consultant, for example in terms of lower fees and in some cases higher service quality in terms of client care, for example.

41. Whilst we acknowledge that this evidence is somewhat limited in itself, given that the core evidence is based on relatively brief comments relating to examples and evidence primarily from [redacted] and [redacted], we consider that it is indicative of mechanisms through which engagement could lead to better client outcomes, and disengagement could lead to worse outcomes.

Background

Measures of engagement

42. In this section we set out how we measure engagement for the purposes of our quantitative work in this paper, and consider the extent to which there is variation in engagement across schemes. Whilst the underlying engagement of a scheme is not observable, we expect that schemes exhibiting observable indicators of the sort discussed below will be more likely to undertake actions or to have characteristics making them more likely to engage with the market to secure more favourable outcomes.
43. Our work on [Trustee Engagement](#) took a similar approach in focussing on indicators to proxy for engagement, although the CMA Survey was our primary source of evidence in that paper. In this paper we focus on the analysis of data on IC and FM customers which has been submitted by providers (Parties' Data). We focus on Defined Benefit (DB) and Hybrid schemes.²⁹ The particular measures we have used differ slightly in definition. Specifically, our analysis in this working paper focuses on three engagement indicators:
 - (a) The use of a formal tender. Schemes which have performed a formal tender have undertaken a process to evaluate those providers who submitted a response to a tender to supply them with IC or FM services and selected what they consider to be the best option. This indicates a scheme is engaged as the scheme is looking to ensure it is getting the best possible offer from its provider.³⁰

²⁹ We drop DC schemes from our 2016 dataset. This focus is for pragmatic reasons given that we have low numbers of DC schemes in our data, reflecting the fact that our data from the parties has a revenue floor for pragmatic reasons, and many DC schemes are likely to be below this cut-off. As such, the analysis cannot practically adjust for relevant DC characteristics. We do not differentiate between hybrid and DB schemes in most analyses, but perform a robustness check on the econometric results where we include a hybrid dummy.

³⁰ The [Trustee Engagement Working Paper](#) considered *switching or tendering* as one category.

- (b) The use of a TPE.³¹ TPEs are companies which are externally employed to assess the value of providers on an ongoing basis or to evaluate whether the move to FM is right for the scheme. Where schemes have used a TPE, they have undertaken an independent assessment of the providers in the market and will be in a better position to assess which provider offers the best deal.³²
- (c) The existence of a professional trustee sitting on the board of trustees. Professional trustees may have greater experience in dealing with providers allowing them to ensure the scheme is attaining the best market offering.³³
44. For the analysis of FM customers, we also distinguish between schemes depending on whether they were acquired from a previous IC relationship. Existing IC schemes of a particular provider who moved into FM are termed **Internally Acquired** schemes, and schemes who move to a new provider when entering FM (that is, not their IC provider) are termed **Externally Acquired** schemes.
45. This approach builds upon the analysis undertaken in our Working Paper on the supply of fiduciary management services by investment consultancy firms. In that working paper, we considered the theory that customers that receive IC services are steered towards ICs' in-house FM services, when an alternative solution or deal could have been in their best interests.³⁴ Our analysis of FM has therefore focussed on schemes which purchase FM from providers of both IC and FM services (IC-FM Providers).

Variation in engagement

46. Our working paper on Trustee Engagement shows evidence from the survey that scheme type, size, provider and the services provided all affect levels of

³¹ Parties submitted data firstly detailing, 'Whether the client has previously engaged a third party to recommend whether moving into fiduciary managed services was appropriate, within the last 5 years (if known)' then detailing, 'Whether the client engages a third party to recommend whether moving into fiduciary managed services was appropriate (if known)'. For our analysis we have considered a 'Yes' to either question to equate to the use of a TPE given some concerns about how use of TPEs has been classified between variables in responses.

³² The [Trustee Engagement Working Paper](#) considered *external review of fees and/or quality*. The use of TPE is likely to overlap very closely with this measure.

³³ Professional Trustees were not analysed in the [Trustee Engagement Working Paper](#) survey analysis. We nevertheless consider that Professional Trustees may have characteristics which enable schemes using them, for example, to challenge IC and FM providers' fee proposals and to push for discounts more effectively, an idea supported by some of the parties.

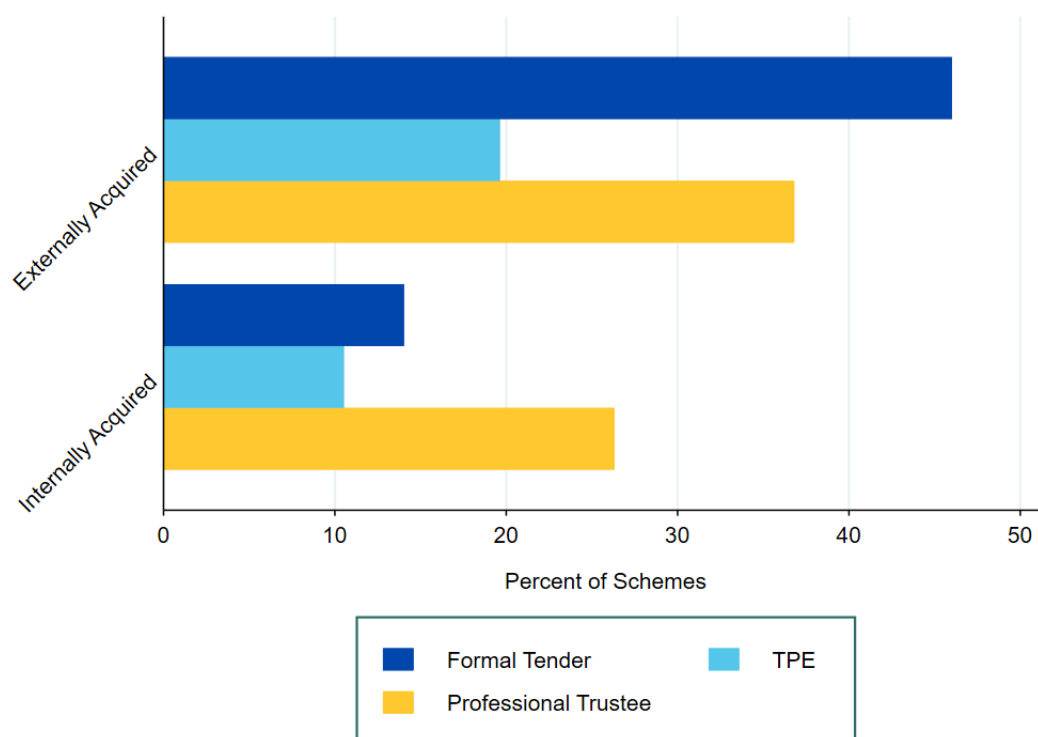
³⁴ CMA working paper on the [Supply of fiduciary management services by investment consultancy firms](#), paragraph 2.

engagement. As we set out below, similar results hold in the parties' own data. We begin with FM and then cover IC.

Fiduciary management

47. We begin with Fiduciary Management. We have analysed the proportion of schemes with engagement indicators in Figure 1. This shows the percentage of schemes which exhibit the above-discussed indicators, broken down between Internally Acquired and Externally Acquired schemes.

Figure 1: Proportion of schemes in FM who exhibit engagement indicators: broken down by whether the scheme had a previous relationship with their IC provider.



Source: CMA Analysis, Parties' Data.

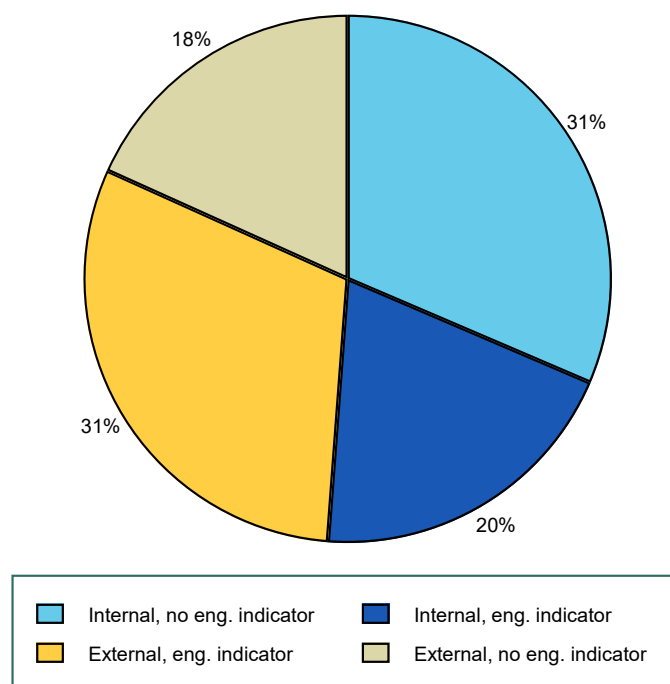
48. Of Externally Acquired schemes, 49% of schemes performed a formal tender process, 24% used a TPE and, 40% had a Professional Trustee. For Internally Acquired schemes, 14% of schemes had tendered, 10% of schemes used a TPE, and 27% of schemes had a Professional Trustee.

49. The prevalence of each engagement indicator is substantially lower for Internally Acquired schemes than Externally Acquired schemes, but is most pronounced in the number of formal tenders where there is a 34 percentage point difference.

50. For our core results in what follows, we have considered schemes to be engaged if they show at least one of these three indicators. In Figure 2 we

divide schemes into four types based on whether they are engaged on this definition, and whether they were acquired internally or externally.³⁵

Figure 2: Pie chart of schemes in FM who exhibit one or more engagement indicators: broken down by whether the scheme had a previous relationship with their IC provider.



Source: CMA Analysis, Parties' Data.

51. Figure 2 shows that, of schemes at five IC-FM providers³⁶ (Aon, JLT, Mercer, River & Mercantile and Willis Towers Watson), 50% were Internally Acquired and 50% of schemes who buy FM were acquired externally.³⁷ Our analysis in the [Competitive Landscape Working Paper](#) shows that these five firms collective make up the majority of the FM market in revenue terms.³⁸
52. We note that Externally Acquired schemes have switched provider and therefore may have higher levels of overall engagement, and this is borne out in the data above: a higher proportion of Externally Acquired schemes have an engagement indicator than Internally Acquired schemes.

³⁵ We note that all Externally Acquired clients have demonstrated some level of engagement in that they have changed provider when moving into FM. For this chart and for the descriptive analysis that follows, we have broken down Externally Acquired clients using the same engagement definition as Internally Acquired clients.

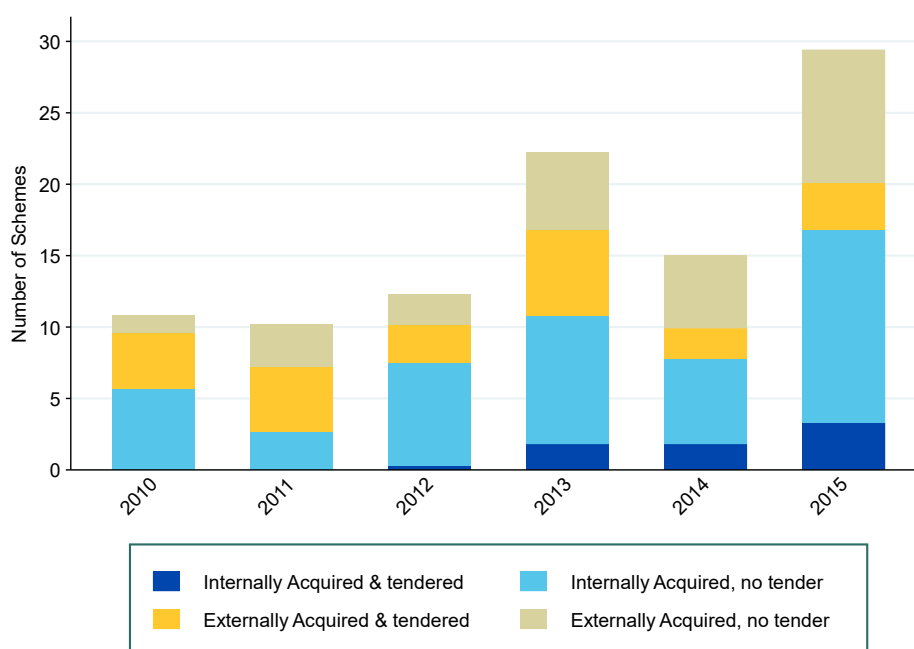
³⁶ Schemes who purchase FM from one of these five providers represent 73% of schemes in FM.

³⁷ Due to rounding there is a 1% difference from chart's stated value. The chart percentages total 99% due to this rounding.

³⁸ The fact that there are only five firms with significant internal acquisitions is consistent with the fact that many FM providers do not offer standalone IC services. Russell Investments is another large player in terms of Fiduciary Management. However, [redacted].

53. In Figure 3 we consider trends in engagement over time. We have focussed on tendering at providers who have had schemes move from an IC to FM relationship. We show this in a stacked bar chart below for the five IC-FM providers listed above. For each year between 2010 and 2015, we show the number of schemes which have joined FM. We break this number down between those which were Internally and Externally Acquired. To show engagement, we further divide both categories into those which did or did not tender.³⁹

Figure 3: Stacked bar chart showing the number of schemes joining one of the 5 IC-FM firms,⁴⁰ split by whether Internally / Externally Acquired & tendering.



Source: CMA Analysis, Parties' Data.

54. Figure 3 illustrates that the fraction of Internally Acquired schemes (shown in blues) through time has been reasonably constant (approximately 50%). The chart also shows that, in our data, no schemes had performed a formal tender prior to 2012 when moving internally to FM. After 2012, rates of tendering appeared to be higher, although still represented a minority of schemes.

Investment consultancy

55. We have also considered engagement in IC. We find that over half (50%) of all schemes have undertaken a formal tender and nearly half (44%) of

³⁹ We do not have time series data for TPE and PT usage.

⁴⁰ Not including Russell Investments.

schemes have a professional trustee sitting on the board of trustees. As such, there is a sufficiently large number of engaged and disengaged schemes to analyse independently. Only a small minority of schemes (4%) of schemes use a TPE.

Measures of outcomes

56. The market outcomes experienced by pension schemes may vary in several different ways. In particular, schemes may experience varying:
- (a) Prices for the same or comparable IC or FM services;
 - (b) Effort and success on the part of ICs in negotiating discounts for their schemes on Asset Management (AM) products in the context of their manager recommendations services;
 - (c) Returns on their assets, leading to changes in the rate of growth of their funding levels for a given spend and level of risk, or
 - (d) Quality of service on 'soft factors' such as personal relationship or clarity of advice.
57. We have focussed our analysis on the fees paid by schemes to their FM or IC provider primarily because they are measurable. Fees will also influence the net returns experienced by schemes where these are paid by the scheme itself rather than the employer.
58. In FM, prices are generally charged at least in part as a fraction of assets under management.⁴¹ We analyse price as spend per unit of asset management, expressed in basis points (that is, percentages multiplied by 100). We calculate this using data provided by the Parties on spend and AUM. In IC, prices are generally charged at least in part on an hourly basis. We therefore analyse price as implied spend per hour, again calculated from Parties' data.⁴²
59. A necessary condition for the analysis is that there is sufficient variation in outcomes. That is, if all schemes pay the same price, then the measure is not relevant for our analysis. We find that the amount schemes pay differs significantly.⁴³

⁴¹ 97% of schemes have at least part of their fee based off ad valorem charges.

⁴² For both IC and FM, we undertake a sensitivity where we analyse spend rather than price.

⁴³ Further analysis into this is set out in the Technical Appendix.

60. We acknowledge that this analysis does not account for all desirable measures of outcomes. Nevertheless, in our view it represents a reasonable approach given the nature of the task. The analysis could significantly understate the difference in overall value for money achieved between engaged and disengaged schemes if other factors are also relevant.

Quantitative Approach

61. We have considered a range of statistics as part of this analysis, covering both IC and FM. This section begins by setting out at a high-level the approaches we have taken and outlines some of the potential issues with each. We then describe our analysis, first for schemes in FM and second for schemes in IC.
62. At the highest level, we have undertaken a simple comparison of averages to understand whether customers who have some of the engagement proxies we set out earlier (see paragraph 42) pay less than other schemes.
63. There are many factors which might affect the prices of (and spend by) schemes, aside from engagement. Statistics which do not account for these other drivers could erroneously identify a relationship between engagement and price, or could erroneously imply such a relationship does not exist.⁴⁴ In other words, we need to control for potentially confounding factors. In our comparison of averages, we therefore divide schemes based into groups which look similar based on other key drivers of prices (and spend), such as scheme size.
64. We have also undertaken regression analysis. In simple terms, this is a statistical technique which allows us to model price and spend in terms of several hypothesised drivers of spend, such as engagement and client size. This approach allows us to control for several potential drivers of spend at the same time, to understand the relative magnitude of the effects of these drivers, and to get a sense of whether we can reliably conclude whether any identified effect of these drivers on price is not simply due to random variation in the data (that is, whether any effect is statistically significant).
65. Whilst the techniques involved with regression analysis are more sophisticated than comparing averages, there are still several reasons why this approach might also misstate the true effect of engagement. Key caveats include that we can only proxy for engagement; we can imperfectly measure

⁴⁴ Larger schemes tend to face lower prices. Larger schemes may also be more engaged. As such, comparing prices across schemes which have engagement indicators versus those who do not, without accounting for size, would overstate the difference in engagement since it is “picking up” some of the effect of size.

the complexity of the services given to schemes; we may not be able to measure other potentially confounding factors and therefore may omit key variables from the analysis; and we can only conduct some analyses using a limited number of schemes.

66. It is also possible that whilst engagement might affect prices, prices might also drive engagement. This could happen if schemes which are getting a bad deal take action to address this. We consider that this could lead to downwards bias on any 'gain from engagement' identified. Other potential biases, some of which may go in the other direction, remain possibilities.
67. We cover these issues in more detail in the Technical Appendix, paragraphs 172 to 178. There are good reasons to believe these issues are unlikely to be severe in our case. This is particularly true given that we do not assign high weight to any one statistic produced in this analysis. Further, we are not seeking to use this analysis to produce a precise estimate of the impact of engagement; rather, we aim to test whether a relationship exists at a more general level.

Analysis of schemes in Fiduciary Management

68. As set out above, our analysis has focussed on schemes currently using FM. We have undertaken two different approaches to analysis of these schemes, in each case beginning with a simple comparison of averages before proceeding to a regression approach.
- (a) First, we analyse whether disengaged schemes' 2016 prices were on average higher than comparable schemes exhibiting engagement indicators.⁴⁵
- (b) Second, we conduct analysis of the movement of schemes from IC into FM. FM is more expensive than IC because it involves more services being delivered, and therefore schemes will face a price increase when moving from IC to FM. However, engagement may affect the size of the price increase. We have tested whether this price increase is larger for schemes which do not exhibit engagement indicators.
69. The first approach has the benefit of simplicity, and can use a greater quantity of data. A key limitation however is that it is not possible to control for all conceivably important drivers of price due to practical limits in the scope data

⁴⁵ When comparing averages in this way, we focus on the 'median' rather than the 'mean'. The median is the price of the "middle" scheme, if they were all lined up in order of price from low to high. The mean is the total price of all schemes, divided by the number of schemes. The median has the advantage that any scheme with unusually high or low prices within any given group of schemes has less impact on the overall 'average'.

held by, and which we could collect from, the parties. That is, there might be additional complexity in the advice given to schemes which we cannot observe.

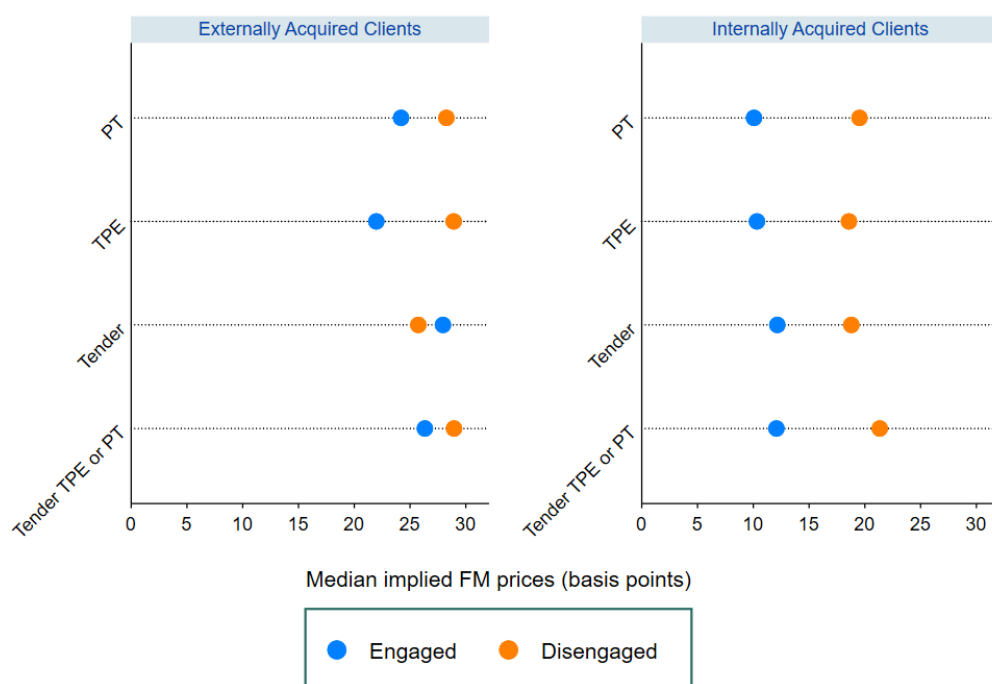
70. The second approach goes some way to addressing this issue by comparing the same scheme through time. The absolute level of prices is less relevant in this analysis: schemes with unobservably more complicated requirements are likely to spend more in both IC and FM, but there is less reason to believe that the ratio of their IC and FM spend should differ. We continue to control for potentially confounding factors, such as the size of schemes and the services purchased in FM.
71. As we set out in paragraphs 44 and 50, differences in market outcomes for schemes which were Internally Acquired rather than Externally Acquired is key to this analysis. We have therefore focussed our analysis on the five FM firms which have had a significant number of Internally Acquired schemes, namely Aon Hewitt, JLT, Mercer, River and Mercantile, and WTW.

Static approach

Comparison of averages

72. Our starting point is to compare the average (median) FM price per unit of asset under management (median price) paid by Internally Acquired and Externally Acquired schemes, according to whether these schemes exhibited any form of engagement. We tested different ways of measuring engagement, specifically by performing this comparison along each of the proxies set out above, both individually and in combination.
73. Figure 4 below shows these comparisons in a dot chart. Each horizontal line represents a different measure of engagement and a separate comparison. We undertook separate comparisons for internally and Externally Acquired schemes. The position of the blue dots along the horizontal axis indicate the median price paid by schemes which were engaged on that indicator, and the orange dots the median price for schemes which were disengaged.

Figure 4: Median FM prices paid split by different indicators of engagement.



Each line cuts the data in a different way: they are not mutually exclusive

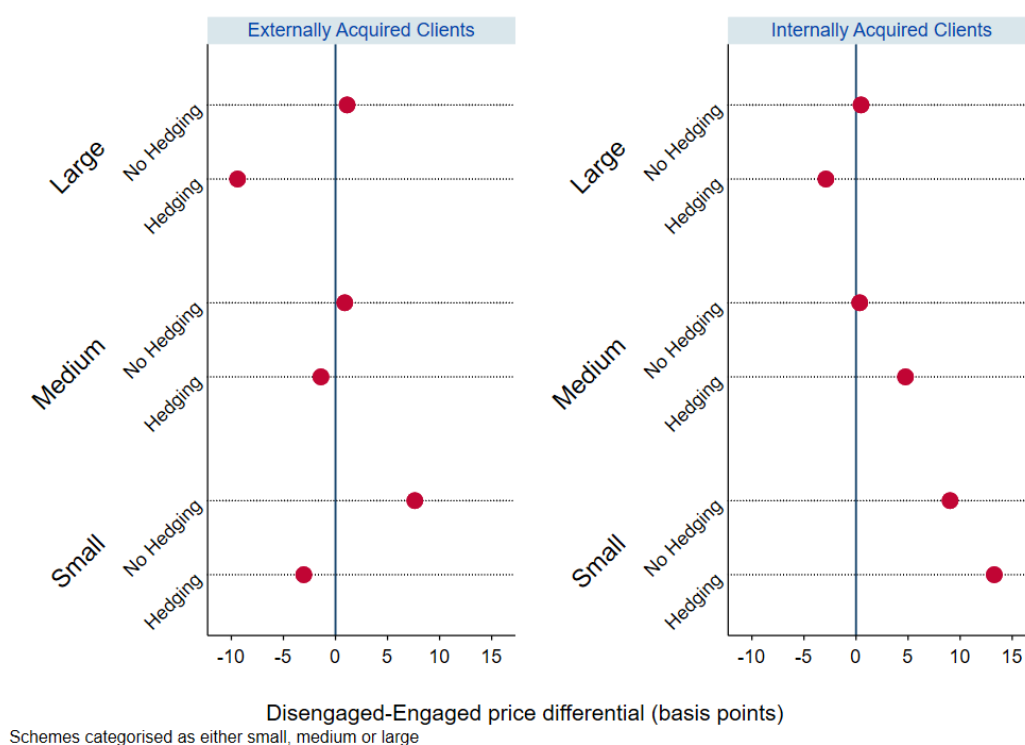
Source: CMA analysis, Parties' data⁴⁶

74. The chart shows that, amongst Internally Acquired clients, disengaged schemes receive worse prices than engaged schemes, regardless of which of the above proxies for engagement we have used. Amongst Externally Acquired schemes, that is schemes which had switched provider when moving into FM, the evidence was slightly more mixed, although in three of the four comparisons disengaged schemes paid more. Internally Acquired schemes received lower prices than Externally Acquired schemes.
75. Using a similar idea, we have compared the distributions of price (therefore assessing more data points than just the median) for engaged and disengaged schemes. This analysis is shown in the Technical Appendix, paragraph 150.
76. As we set out above, comparisons which do not account for potentially confounding factors, such as size and hedging, may misstate the true differences between engaged and disengaged schemes. We have therefore considered whether the general relationship outlined above holds when we consider subgroups of schemes.

⁴⁶ There appears to be only one 'dot' on the "tender" comparison for Externally Acquired clients. This is because there is essentially no difference between prices of engaged and disengaged Externally Acquired schemes, when tendering is used as the measure of engagement.

77. Figure 5 below shows our analysis in another dot chart. We address two key confounding variables. It appears from our analysis that hedging increases prices in a material way and that prices fall by size. We therefore compare the price differential faced by schemes which exhibit no engagement indicators as compared with those which exhibit at least one, in each of six subgroups: those using hedging⁴⁷ and those which aren't, each split into three size brackets.
78. The comparison for schemes with less than £100m in AUM are categorised as "Small" and shown in one group; schemes with AUM of £100m to £1bn are categorised as "Medium" and shown in another; and schemes with AUM of over £1bn are shown in a third group. Each is then divided into schemes which hedge and schemes which do not. The position of the red dot on the horizontal line corresponding to that group shows the prices faced by disengaged schemes *relative to* those faced by engaged schemes. If the dot is to the left of the dark blue line, disengaged schemes pay less; to the right, they pay more.

Figure 5: Median FM price differential between disengaged and engaged schemes, split by size & hedging.



Source: CMA analysis, Parties' data

⁴⁷ Specifically, data provided by the Parties allows us to identify whether the scheme purchases 'Bespoke Liability Hedging'. We use 'hedging' as shorthand to refer to the purchase of this service.

79. For Internally Acquired schemes, the chart shows that disengaged schemes usually pay higher prices than their disengaged counterparts, although for large schemes this is not demonstrated.
80. Amongst Externally Acquired schemes, the picture is more mixed. Engaged and disengaged schemes pay a very similar amount for three of the subgroups. Of the rest, small disengaged schemes who don't buy hedging pay more, but both small disengaged and large disengaged schemes which do buy hedging pay *less* than their engaged equivalents.
81. Disengaged schemes only appear to face lower prices where they are hedging; this may arise because the extent of hedging can vary and engaged schemes may have sought a higher degree of hedging in recent years, given the benefits this appears to have brought to pension schemes. The additional complexity of this would not be captured in the above chart.
82. We have also broken down the comparison between engaged and disengaged schemes at firm level. We show the results of this comparison in the Technical Appendix at paragraph 153. The analysis is not highly clear cut but indicates that, even within individual firms, engaged schemes may on average be getting better prices than disengaged schemes. That is, the results do not appear rely on individual firms having high levels of reportedly engaged schemes and cheaper prices, but instead are indicative of each firm offering their own schemes different prices.

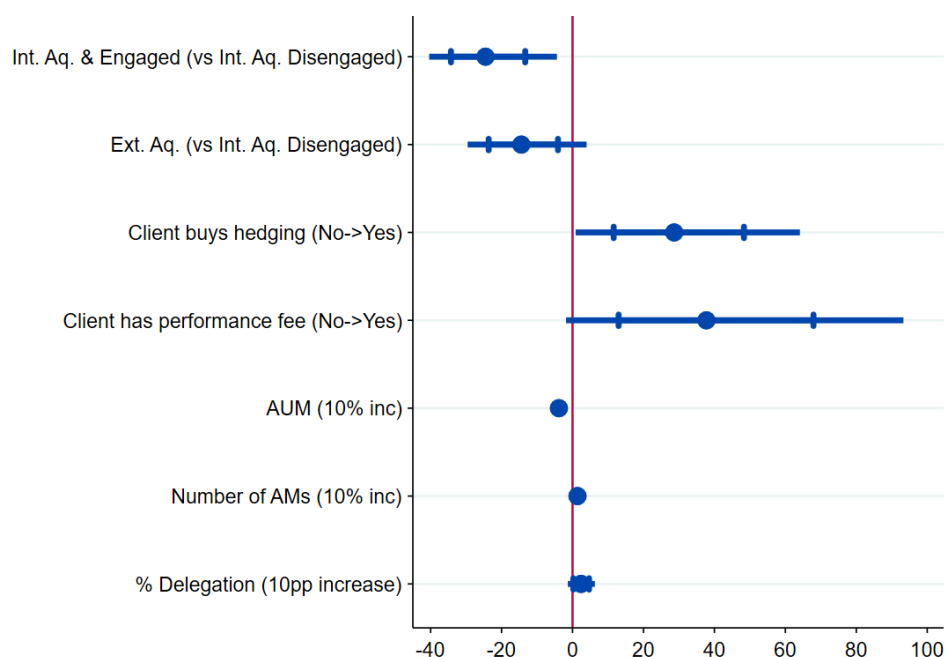
Econometric approach

83. As set out above, we have also undertaken an econometric analysis of this data which is described in more detail in the Technical Appendix beginning at paragraph 153. We have conducted this analysis primarily to address the need to control for several confounding factors simultaneously in a context of small sample sizes, and to understand the likelihood that any gains from engagement shown by the analysis are merely the result of random variation in the data.
84. In our main specification, we regress implied price on a set of dummy variables which identify schemes which are Internally Acquired and engaged, Internally Acquired but disengaged, and Externally Acquired respectively.⁴⁸

⁴⁸ We noted earlier that externally acquired schemes have demonstrated some form of engagement in that they have switched provider when moving into FM. For this reason, and given the limited number of observations in our data, we have not generally distinguished between 'engaged' and 'disengaged' externally acquired schemes in our econometric analysis, although we do split them out in one sensitivity discussed below.

85. Our key test of interest is whether disengaged Internally Acquired schemes pay more than their Internally Acquired but engaged counterparts. We also test whether Externally Acquired schemes pay less than Internally Acquired schemes.
86. We control for a range of confounding factors including size; hedging; whether the scheme has a performance fee; whether the client imposed restrictions on the FM provider; the number of asset managers used by the client (as a proxy for complexity of investments); the year the scheme moved into FM; and the firm used by the scheme.
87. The results of our main specification are displayed in Figure 6 below. Each horizontal line is a different variable we have entered into the model, and the horizontal position of the solid blue dot relative to the red vertical line indicates the magnitude and direction of the effect. The 95% confidence interval around each blue dot is shown by the solid blue lines, and the tick marks on each line the 75% confidence interval. We include full regression tables in the appendix beginning at paragraph 179.

Figure 6: Baseline regression specification, Static Analysis, graphical presentation



Source: CMA Analysis, Parties' Data

88. The figure above shows that, when we control for other factors that might explain prices, Internally Acquired schemes exhibiting at least one engagement indicator receive prices which are on average 25% lower than

Internally Acquired schemes exhibiting no engagement indicators.⁴⁹ This effect is statistically significant at the 5% level.

89. Externally Acquired schemes, whether engaged or not, receive prices which are 14% lower than Internally Acquired but disengaged schemes. However, effect was not statistically significant at conventional levels.
90. The control variables all have the expected signs, and are either statistically significant or reasonably close to being so. Schemes which purchase liability hedging face prices which are 29% higher, and schemes with performance fees face prices which are 38% higher. A 10% increase in the number of asset management firms in the schemes' portfolio (a proxy for complexity) is associated with prices which are 1.4% higher, and a 10% increase AUM is associated with prices which are 3.8% lower. A 10 percentage point increase in assets delegated into FM is associated with prices which are 2.4% higher, although this effect was not statistically significant at conventional levels.⁵⁰
91. Not shown in the chart for concision, we also control for factors affecting client prices specific to each firm by including a set of FM provider indicator variables (firm fixed effects). We do not place particular weight on the direction of any of the arising coefficients.
92. We have checked the robustness of the model to a large range of changes in the included control variables, included data, and model specification. The results of these checks are summarised in Table 1 below. We show six sensitivities:
 - (a) For consistency, the model used in the transition approach, which has fewer control variables;⁵¹
 - (b) Excluding firm indicator variables;
 - (c) Splitting Externally Acquired schemes by engagement, as we have done for Internally Acquired schemes, and

⁴⁹ Note that we measure both Internally Acquired and Engaged schemes, and Externally Acquired schemes, relative to Internally Acquired, Disengaged schemes. We do not include a variable for these schemes to avoid problems with multicollinearity.

⁵⁰ The p-value is 21% so we cannot reject the null hypothesis that the percentage of assets delegated has an effect on price, conditional on all the controls (although, in simple terms, there is only a 21% chance that the null is true but we do identify this in the data). Since that we already control for AUM, this variable is controlling for differences of the percentage delegation for schemes with a given values of assets managed by the FM. It does not seem implausible for schemes which had the same AUM, one in full FM and the other in partial FM, to be charged the same price all else being equal.

⁵¹ We use a different baseline for the Transition Analysis (discussed below) due to (i) the greater number of observations here and (ii) the need to control more for scheme complexity in a simple cross sectional model than one relying on changes in spend for the same scheme through time. We find that if we used the same baseline (shown in column 2 above), our headline results (column 1) would not differ in any notable way.

(d) Three further specifications, tightening our definition of engagement such that we measure the effects of tendering, using a TPE and having a PT in isolation.

Table 3: Baseline, compared with six key sensitivities, for the FM Static analysis⁵²

	0	(1)	(2)	(3)	(4)	(5)	(6)	
	Baseline	Baseline, Transition Approach	Without firm FEs	Splitting ext. acquired into Eng vs Diseng.	Tender only	TPE only	PT only	
Engaged, Internally Acquired (No->Yes)	-25%** (2%)	-22%** (1%)	-26%** (1%)	-24%** (2%)	-29%** (0%)	-23% (12%)	-6% (66%)	
Externally Acquired (No->Yes)	-14% (12%)	-7% (31%)	-12% (18%)	-11% (25%)	-19% (11%)	-10% (25%)	-8% (37%)	-5% (57%)
Observations	193	290	193	193	193	193	193	
Adjusted R-squared	0.553	0.564	0.541	0.552	0.551	0.546	0.539	
p-values in parentheses * p<0.10 ** p<0.05 *** p<0.01								

** = significant at the 5% level, * = significant at the 10% level.

Source: CMA Analysis, Parties' Data

93. Whilst there was some variation in the exact effects shown across the sensitivities, the identified fee differential between engaged and disengaged schemes was fairly robust.
94. The fee differential between Internally Acquired but disengaged schemes, and Externally Acquired schemes, has the expected sign. However, its statistical significance was generally not robust to our sensitivity checks, and we therefore do not place much weight on this result.
95. Overall, our emerging view from the static analysis is that engaged schemes pay significantly less than disengaged customers when moving into FM with the same provider they had used for IC.

⁵² We report unadjusted regression tables in the Technical Appendix. Relative to that table, we have (i) adjusted the coefficients to yield a figure which is interpretable by exponentiating the coefficient, subtracting one, and multiplying the result by 100; and (ii) rounded all figures to 0 decimal places.

Transition approach

96. As set out in paragraph 67 above, we have undertaken an additional analysis for schemes entering FM. We have considered the evolution of prices at *the same* scheme before and after a transition into Fiduciary Management.
97. FM is more expensive than IC because it involves more services being delivered, and therefore schemes will spend more. However, engagement may reduce the extent to which spend increases. We have calculated the spend increase as a ratio: that is, for each scheme, we compute the ratio of their average post-transition FM spend to their average pre-transition IC spend, for all years in our data. For example, a scheme which pays twice as much from FM as it did for IC services will have a spend multiple of two.
98. As in the static approach above, we perform this comparison both using simple averages and a regression approach. We discuss these analyses in this order. Due to data limitations, we are not in a position to compare reliably IC and FM prices for schemes which moved into FM with a provider other than their IC provider. We therefore draw conclusions from this analysis primarily in relation to Internally Acquired schemes.
99. Largely as a consequence of this, we have a smaller number of schemes in the data. Therefore, whilst the analysis has the strong advantage of controlling for complexity more thoroughly (by looking at spend movements at the same scheme), it has the practical limitation of sample size.⁵³ We therefore base our emerging findings both on the static and the transition analysis.⁵⁴

Comparison of averages

100. We compared the median⁵⁵ spend multiple of schemes. On a very simple comparison, we find that the median spend increase of schemes moving into FM is about the same whether they have an engagement indicator or not. Schemes moving into partial FM spend about two times more than they did in

⁵³ Due to the limited number of data points, the transition analysis is based on all scheme types (e.g. including DC) except where noted.

⁵⁴ Data limitations are also a primary reason why we have chosen to analyse spend rather than price (that is, total spend as opposed to price per unit of AUM) for this analysis: we do not have reliable AUM data through time for key parties. Prices pre-transition can therefore not be computed reliably. By contrast, we have reasonable AUM data for 2016 for a range of parties and are therefore in a position to compute implied prices for the static analysis discussed above.

⁵⁵ As above, we have focussed on the median rather than the mean because it reduces the impact of any outliers within subgroups on the final results.

IC, and schemes moving into full FM spend about 4.75 times more than they did in IC.⁵⁶

101. Using a similar idea, we have compared the distributions of the spend multiple (therefore assessing more data points than just the median) for engaged and disengaged schemes. This analysis is shown in the Technical Appendix, paragraph 153.
102. However, schemes which are engaged may be more likely to have characteristics which mean they spend more (or less), such as purchasing expensive but potentially high value services (such as liability hedging). To account for this, we have made the same comparison across subgroups, noting the small sample size that results from splitting the data at this level.
103. That is, we compare the increase in spend moving to either partial or full FM (i) for schemes which do not purchase hedging and (ii) for schemes which purchase hedging. We have shown the results of this analysis in the bar chart below, Figure 7. Orange bars indicate the IC-FM spend multiple for schemes with no engagement indicators, blue bars the IC-FM spend multiple for those with at least one engagement indicator.

Figure 7: Spend multiples (FM over IC), split by partial/full FM and whether scheme purchases hedging in FM.



Number of observations: Partial FM hedging: 15; Partial FM not hedging: 38; Full FM hedging: 24; Full FM not hedging: 33

Source: CMA Analysis, Parties' Data⁵⁷

104. The chart shows that in three of the four subgroups, the spend increase is higher for schemes which have no engagement indicators than those that

⁵⁶ For DB schemes only.

⁵⁷ For DB schemes only.

have a least one indicator. In full FM where the percentage of assets delegated is not a potentially confounding factor, disengaged schemes spend more in both subgroups. As a consequence, we place more weight on the Full FM results.

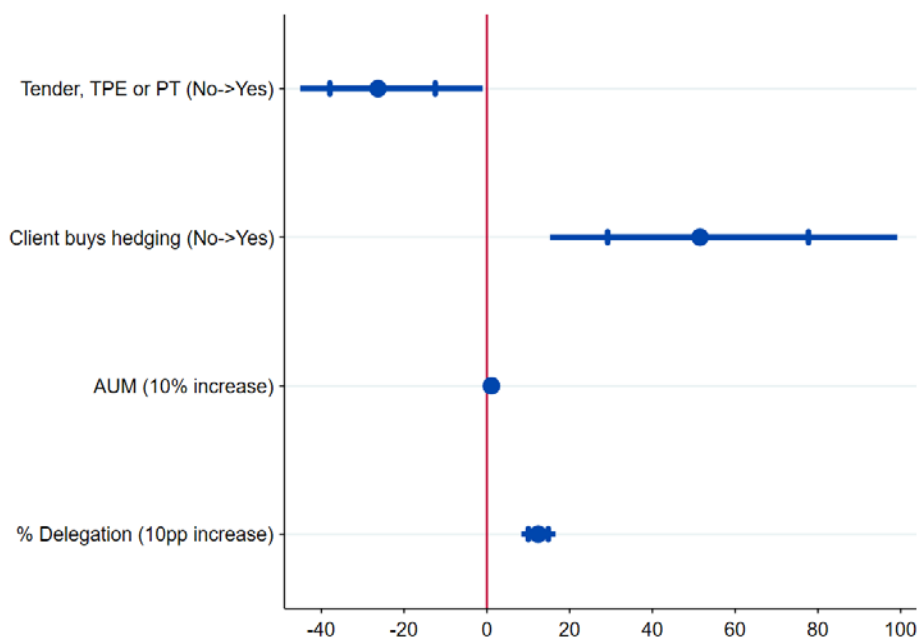
105. We note that this relationship is not clear cut when we consider each engagement indicator in isolation (that is, when we perform the same comparison for tendering alone, TPE usage alone and Professional Trustee usage alone). This difference may arise because, of those schemes we could identify moving from IC to FM, there are small numbers of schemes who are engaged on any individual measure. When broken down into subgroups, the comparisons are therefore based on very small numbers of schemes. We show the results of this comparison in the Technical Appendix, paragraph 158.

Econometric approach

106. As set out above, whilst regression analysis is unlikely to be fully robust given the low sample size, it allows us to analyse the entire set of data available, controlling for confounding factors, rather than analysing several different and very small cuts of data independently of each other. We provide a full set of results in the Technical Appendix beginning at paragraph 183; the key results are summarised below.
107. In our main specification, we have regressed the (log of the) IC-FM spend multiple for each scheme on a dummy variable indicating whether the scheme is engaged or not.⁵⁸ Our primary measure of engagement here is whether the scheme has at least one engagement indicator. We include a range of control variables: whether the scheme purchases bespoke liability hedging; scheme size; and the percentage of assets delegated (which will be 100% for full FM schemes).
108. Figure 8 shows a visual representation of our results below. Each horizontal line is a different variable we have entered into the model, and the horizontal position of the solid blue dot relative to the red vertical line indicates the magnitude and direction of the effect. The 95% confidence interval around each blue dot is shown by the solid blue lines, and the tickmarks on each line the 75% confidence interval. We include full regression tables in the appendix.

⁵⁸ We take logs of the dependent variable to avoid violating the assumption in OLS regression that the model is linear in parameters. We allow the effect of any given independent variable to be lower as levels of spend increase. For example doubling scheme size is likely to have more of an effect when schemes are small.

Figure 8: Baseline regression specification, Transition analysis, graphical presentation



Source: CMA Analysis; Parties Data⁵⁹

109. The regression shows that schemes which tendered, had a TPE or used a PT paid 26% less than schemes with none of these engagement proxies. The control variables are generally significant and have the expected signs: a scheme buying liability hedging is associated with 51% larger spend multiples, a 10% increase a scheme's AUM is associated with 1.1% larger spend multiples (although this effect is only marginally significant), and putting an additional 10 percentage points of a scheme's assets into FM is associated with 12% larger IC-FM spend multiples.

110. We have checked the robustness of the model to a range of changes in the included control variables, included data, and model specification. We have pulled out six key sensitivities in Table 2 below, but present more in the Technical Appendix. Table 2 shows the main regression coefficient; the p-value (i.e. the probability that the observed difference in fee would arise from random variation alone, and therefore a measure of the statistical confidence in the result); the number of schemes in the analysis; and the percentage of variation in (log) spend.

⁵⁹ Note that we have adjusted the coefficients for interpretability.

Table 4: Baseline, compared with six key sensitivities, for the FM Transition analysis⁶⁰

	(0)	(1)	(2)	(3)	(4)	(5)	(6)
	Baseline	Baseline, Static Approach	DB/Hybrid only; w/ hybrid control	Schemes buying 2+ IC services only	Tender only	TPE only	PT only
Tender, TPE or PT	-26%** (4%)	-23% (17%)	-24%* (8%)	-22% (24%)	-35%** (5%)	-21% (31%)	-24%* (1%)
Observations	104	60	101	51	104	104	104
Adjusted R-squared	0.345	0.490	0.373	0.455	0.344	0.325	0.336
p-values in parentheses * p<0.10 ** p<0.05 *** p<0.01							

Source: CMA Analysis, Parties' Data

111. Whilst there is some variation in the exact effects shown across the sensitivities, the identified increase (spend multiple) between engaged and disengaged schemes was reasonably robust: p-values were generally low although some plausible specifications were not statistically significant at conventional thresholds.⁶¹
112. Overall, our emerging view from the transition analysis is that engaged schemes pay significantly less than disengaged customers when moving into FM with the same provider they had used for IC.

Analysis of schemes in Investment Consulting

113. We have undertaken similar approach in IC as we have in FM. That is, we begin by comparing simple averages, and then present the results of econometric analysis.

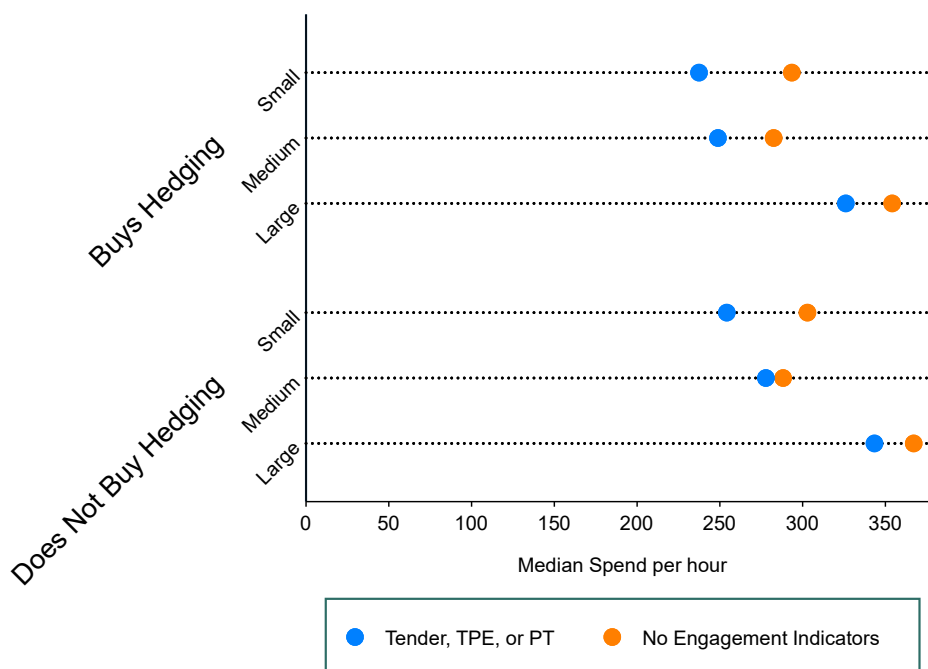
⁶⁰ We report unadjusted regression tables in the Technical Appendix. Relative to that table, we have (i) adjusted the coefficients to yield a figure which is interpretable by exponentiating the coefficient, subtracting one, and multiplying the result by 100; and (ii) rounded all figures to 0 decimal places.

⁶¹ It is worth noting that our baseline specification here (column 0) differs slightly from the baseline for the static work (column 1). In particular, the baseline specification for the transition analysis does not contain explanatory variables for the fiduciary provider; the number of asset managers used by the scheme or the existence of performance fees. The main reasons for this difference in approach is that we have a smaller sample size which generally militates against including a large number of explanatory variables. Further, when comparing the evolution of spend at the same scheme though time there is less need to control for complexity than in a simple cross-sectional regression. Nevertheless, using the same baseline specification as in the static work yields consistent results in terms of direction and magnitude, although the p-value is higher. In this context, we note that including firm fixed effects and a set of dummies for the year of transition into FM reduces the sample size to 60 due to missing data. The added control variables are not generally statistically significant. We consider therefore that the simpler specification is preferable in this case, but that the static model baseline specification still provides corroborating evidence.

Comparison of averages

114. We compared the median IC spend per hour of work undertaken by the IC (median spend per hour) for schemes which are engaged or not engaged. This approach is consistent with how we have analysed schemes in FM; we focus on spend per hour rather than per unit of AUM as this is a much more common fee structure in IC. To account for confounding factors, we then split these medians into sub groups to examine the relationship between median spend per hour and engagement.
115. To control for schemes' size, we take the median spend per hour for those who are engaged and those who are not and break this down between small medium and large schemes.⁶² these three groups are then divided into those who do and those who do not purchase hedging. Figure 9 shows engaged schemes in blue and those that are not engaged in orange. On the horizontal axis we present the median spend per hour and on the vertical axis we have the six categories our medians fall into.

Figure 9: Median Spend per Hour split by Size, Hedging and engagement



Source: CMA Analysis; Parties Data

116. Figure 9 above, shows that in all six cases the median engaged scheme spends less per hour than the median scheme which is not engaged. This

⁶² We use the same size definitions as above.

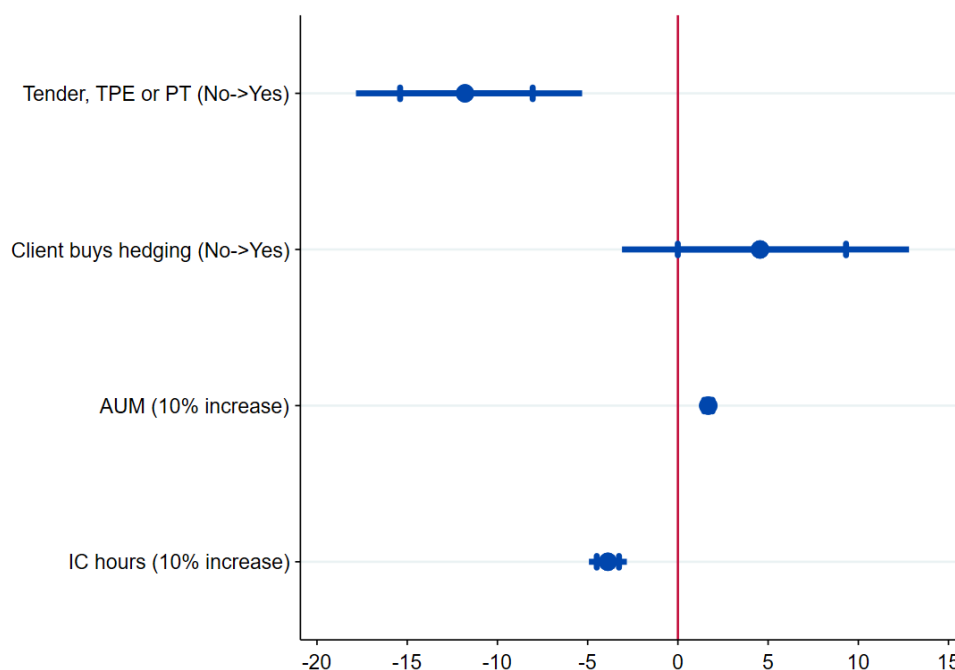
indicates that engaged schemes are paying less per hour of service than those who are not engaged.

117. As for FM, we have also undertaken the simpler approach of comparing the distributions of price for engaged and disengaged schemes. This analysis is shown in the Technical Appendix, paragraph 161.

Econometric approach

118. To control for the size of the scheme, the amount of advice given (as proxied by the amount of time spent by consultants), and the number of services purchased by the scheme we run a regression controlling for these simultaneously.
119. We restrict our regression to only those who purchase strategic asset allocation and manager recommendations to rule out cases of project work from our analysis, which might be incomparable with retained work. Our baseline model controls for size as a log of AUM and the purchase of bespoke liability hedging (which, as noted, appears to add appreciable cost). The results of our IC specification are displayed graphically in Figure 10 below.

Figure 10: Baseline IC regression specification, graphical presentation



Source: CMA Analysis, Parties' data

120. The regression shows that engaged schemes pay around 12% less per hour than their disengaged counterparts. A 10% increase the number of hours of service provided by the consultant is associated with 3.9% lower prices. Conditional on the number of hours of service, a 10% increase in AUM is

linked to a 1.7% increase in spend per hour. This could arise because larger schemes purchase more complex advice, or because larger schemes tend to use particular firms which charge more per hour. All else being equal, purchasing liability hedging (an additional and potentially costly service) is linked to a 4.6% increase in spend per hour.

121. We have assessed the robustness of this model. Importantly, when we introduce firm indicator variables to control for potential systematic differences in price between firms, we find that the coefficient on engagement becomes statistically insignificant (the p-values are high and the coefficient is around zero or is positive). Particularly given that we have a sufficient sample size in IC, this significantly reduces the confidence we have in these results. We discuss this further alongside the full results in the Technical Appendix beginning at paragraph 185.
122. Considering these analyses for IC in the round, there is indicative evidence that engaged schemes pay less than disengaged schemes: this is apparent when comparing average prices, and in some simple regressions. However, the econometric results are less robust, and the estimated magnitude of the fee differential smaller, when compared to FM.

Emerging Findings

123. Our emerging findings from this work are that engaged schemes pay significantly less than disengaged customers when moving into FM with the same provider they had used for IC.
124. There is also some corroborating evidence that switching providers when moving into FM also reduces price and that tendering is more effective than some other forms of engagement in FM. There is some limited evidence that engaged schemes face better prices than disengaged schemes in IC.
125. Although we have not been able to demonstrate an effect in terms of the quality of service received, we consider that fees remain an important determinant of net returns and are generally under the control of providers.
126. These emerging findings are consistent with the behaviours we have identified in Parties' internal documents, and with economic theory. They indicate that the market may not be working well for pension schemes which are not engaged.

Technical Appendix

127. This appendix sets out supplementary detail and analysis to that provided in the main body. We cover in greater detail the nature of the data we have analysed; simple tests for the relationship between engagement and market outcomes; the econometric methodology we have used for the regression results provided in the main body; and the results of the sensitivity checks we have conducted on our baseline results. The appendix proceeds in this order.

Data

128. This section we set out what is contained within the data used in this analysis. We explain how the data has been collected, what the information which was submitted by the parties, and which parties are used in which data sets. This section also explains how we have cleaned this dataset and details how we have addressed potential outliers.
129. The parties submitted data for their customer base in 2016 covering information on the following variables:
- (a) FM Revenues. The revenue from FM in the years 2011-2016. These are the estimated total revenues received (£) from the customer for FM services. These values are equal to the amount that customers have spent on these services.
 - (b) IC Revenues. The revenue from IC in the years 2011-2016. These are the estimated total revenues received (£) from the customer for IC services. These values are equal to the amount that customers have spent on these services.
 - (c) Actuarial Revenue. The revenue IC companies received from schemes who also buy actuarial services. This covers the estimated total revenues received (£) from the client for actuarial services only.
 - (d) Scheme Assets: The size of their customers in terms of their total Assets.
 - (e) Services: Which services a scheme purchases categorised between strategic asset allocation, bespoke liability hedging, dynamic asset allocation, monitoring and derisking, and manager recommendations.
 - (f) Professional Trustee: Parties were asked to declare if their customer has a professional trustee as set out by the TPR's guidance.

- (g) Third Party Evaluators: Parties submissions cover two questions on the use of a TPE. Firstly, parties state whether the scheme has used a TPE to evaluate whether FM was right for them in the past five years. Secondly schemes were asked whether the client engages a third-party evaluator to monitor their FM provider.
 - (h) Method of Acquisition: The parties submitted data detailing how a client was obtained, identifying those who came through a structured bidding process, informal competitive process, and Internal referral.⁶³
 - (i) Acquisition dates: information on the date each firm acquired the relevant mandates.
 - (j) Percent of FM delegation in the categories of: 0 to 29%; 30 to 49%; 50 to 69%; 70 to 99%; and 100%
130. To conduct our analysis, we undertook a significant amount of data cleaning to address various inconsistencies in responses to our standardised data templates. This required some assumptions. We undertook relatively extensive follow-ups with a number of parties to reduce the proportion of unusable data as much as possible.
131. As part of this cleaning process, we have undertaken the following:
- (a) Using the parties' submissions, we merge client data templates one, two, and three together by using unique client ids. Each of the parties' merged data is then appended together to form a combined dataset.
 - (b) In merging together template one with two and three we omit all schemes which pay less than £20,000⁶⁴ as this data was not collected in the latter two templates to reduce the burden of data collection on IC and FM providers.
 - (c) Create a variable which captures the acquisition type of the scheme. Here we combine all Externally Acquired schemes into a single category. We then create another two categories who were Internally Acquired. These two variables differentiate between those who are engaged and not engaged.
 - (d) In our FM analysis we include five parties: Aon, WTW, Mercer, JLT and River and Mercantile. These parties are used as these firms are the only

⁶³ We had to manually map several responses into a more consistent categorisation.

⁶⁴ For the four parties receiving a data request for more variables, schemes who pay less than £30,000 were not included in the data request.

providers whose data shows substantial numbers of schemes transitioning from an IC to FM relationship.

- (e) For our advisory analysis we include the following 13 parties: Aon, Barnett Waddingham, Cambridge Associates, Cardano, Hymans, JLT, KPMG, LCP, Mercer, Redington, River and Mercantile, Russell Investments, and WTW. This data contains 82% of available observations in the IC CDT1 snapshot and contains the same controls detailed in FM snapshot data.
- (f) Dropping of outliers. In the data there are some irregularities where there are extreme values which appear. Extreme values may be (i) data errors and/or (ii) be unrepresentative of the broader population therefore we drop the largest 5% of all values. To remove the effects of any large outliers.

132. In analysing the effect of transitioning into FM we build on the data used in the FM snapshot analysis by merging this to timeseries data submitted by the parties. This allows us to track schemes who move from IC to FM with the same provider. This data is used to calculate the increase in spend moving from IC to FM as a ratio of the initial spend. Our data set covers 67% of schemes which transition between IC to an FM relationship with the same provider.

Summary statistics

133. In this section we describe the composition of the data in our dataset by presenting tables which detail the mean, median, standard deviation, minimum and maximum values. These explain what variation there is in the data. We drop outliers in some key variables using conventional approaches prior to providing these summary statistics, which are presented for the datasets on which we run the regressions.

FM static approach

134. Table 5 shows summary statistics for continuous variables in our Snapshot data. The table shows there is a skewed distribution in AUM and Spend with a large deviation between means and medians of 341 million and 27 thousand respectively.

Table 5: Summary statistics for FM 2016 data – key variables.

<i>Statistic</i>	<i>Number of Observations</i>	<i>Mean</i>	<i>Median</i>	<i>Standard deviation</i>	<i>Minimum</i>	<i>Maximum</i>
Scheme Spend (£ thousands) ⁶⁵	333	306	173	415	6.7	2,994
Scheme AUM (£ Millions) ⁶⁶	329	416	75	1994	1.9	31,814
Implied basis points ⁶⁷	318	23.87	21.5	15.8	0.1	81.74
Year of Mandate acquisition	315	2013q2	2013q3	7	2010q1	2015q4

135. Table 6 shows the percentage of schemes in the data which possess a dummy variable in our snapshot. We see notably only 6% of schemes in our data are hybrid and half of all FM observations use bespoke liability hedging.

Table 6: Summary statistics for FM 2016 data dummies.

<i>Variable</i>	<i>Number of Observations</i>	<i>Percentage of schemes</i>
Tendered	334	30%
Use of TPE	334	15%
Professional Trustee	334	32%
Hybrid scheme	334	6%
Bespoke Liability hedging	334	50%
Partial FM	334	33%

FM transition approach

136. Table 7 shows the mean, median, standard deviation, minimum and maximum values of continuous variables in our Transitional data. The table shows there is a wide distribution in the increase in spend with the median scheme spend increase being 3.2 times whilst the largest is a 24.8 times increase.

Table 7: Summary statistics for FM Transition data

<i>Statistic</i>	<i>Number of Observations</i>	<i>Mean</i>	<i>Median</i>	<i>Standard deviation</i>	<i>Minimum</i>	<i>Maximum</i>
Increase in Spend as a ratio of IC spend	120	5.1	3.2	5.0	0.7	24.8
Scheme AUM (£ Millions)	181	365	79	1,203	2.2	13304
Year of FM Acquisition.	174	2015q2	2015q1	27.8	2012q1	2105q1

137. Table 8 shows the percentage of schemes in the data which possess a dummy variable in our timeseries. Notably there is a larger proportion of

⁶⁵ Excluding the largest 5% of observations.

⁶⁶ Excluding the largest 5% of observations.

⁶⁷ Excluding the largest 5% of observations.

schemes which buy partial FM in our Transitional data set than in the snapshot.

Table 8: Summary statistics for FM Transition data dummies.

<i>Variable</i>	<i>Number of Observations</i>	<i>Percentage of schemes</i>
Tendered	181	17%
Use of TPE	181	8%
Professional Trustee	181	24%
Hybrid scheme	181	8%
Bespoke Liability hedging	181	30%
Partial FM	181	48%

IC static approach

138. Table 9 shows the mean, median, standard deviation, minimum and maximum values of continuous variables in our IC data.

Table 9: Summary statistics for IC snapshot – continuous variables.

<i>Statistic</i>	<i>Number of Observations</i>	<i>Mean</i>	<i>Median</i>	<i>Standard deviation</i>	<i>Minimum</i>	<i>Maximum</i>
Scheme Spend (£ thousands)	1002	113	74	101	20	486
Scheme AUM (£ Millions)	1062	495	166	774	0	3,953
Total IC Hours spent on customer	944	561	342	706	76	7,226
Spend per hour	946	294	273	111	34	704
Number of services	1102	4.7	5	1.3	2	6
Year of Mandate acquisition	928	2008q3	2009q4	19	1988q1	2015q4

139. Table 10 shows the variation in characteristics of Schemes in IC.

Table 10: Summary statistics for IC snapshot – dummy variables.

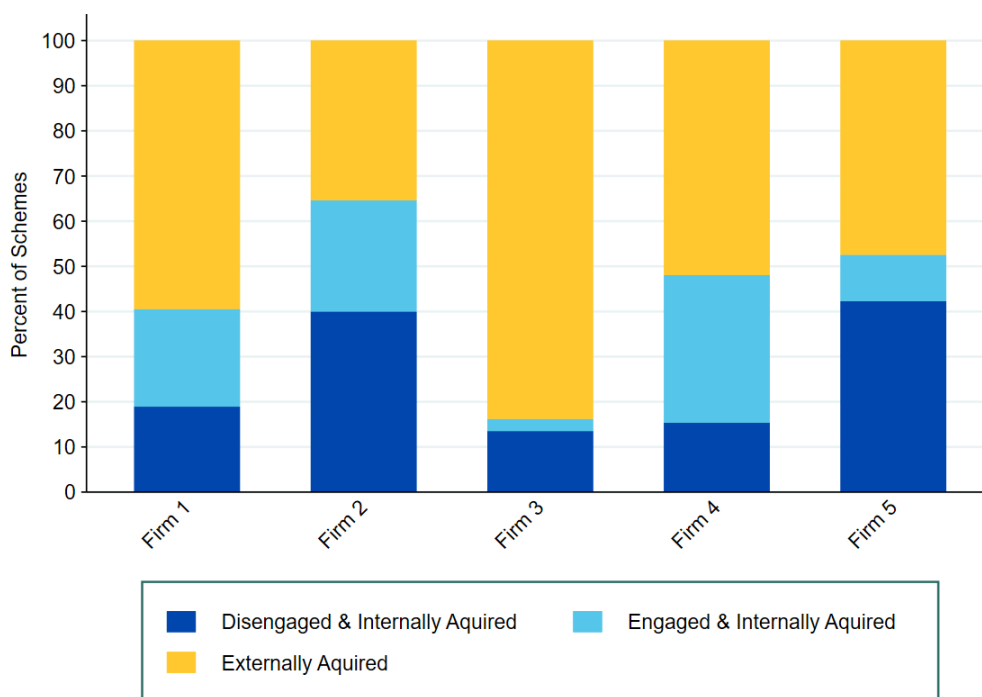
<i>Variable</i>	<i>Number of Observations</i>	<i>Percentage of schemes</i>
Tendered	1102	50%
Use of TPE	1102	4.2%
Professional Trustee	1102	44%
Hybrid scheme	1102	14%
Bespoke Liability hedging	1102	62%

Characteristics of the data

140. Here we provide some supplementary statistics to those presented in the main body to explain further key characteristics of the data.

141. Figure 11 is a stacked bar chart which details the proportions of each firm's schemes split by variation in engagement. The split within each firm as the percentage of schemes acquired internally with engagement, internally without engagement and those acquired externally.

Figure 11: Percentage of schemes by acquisition type within each identified IC-FM firm

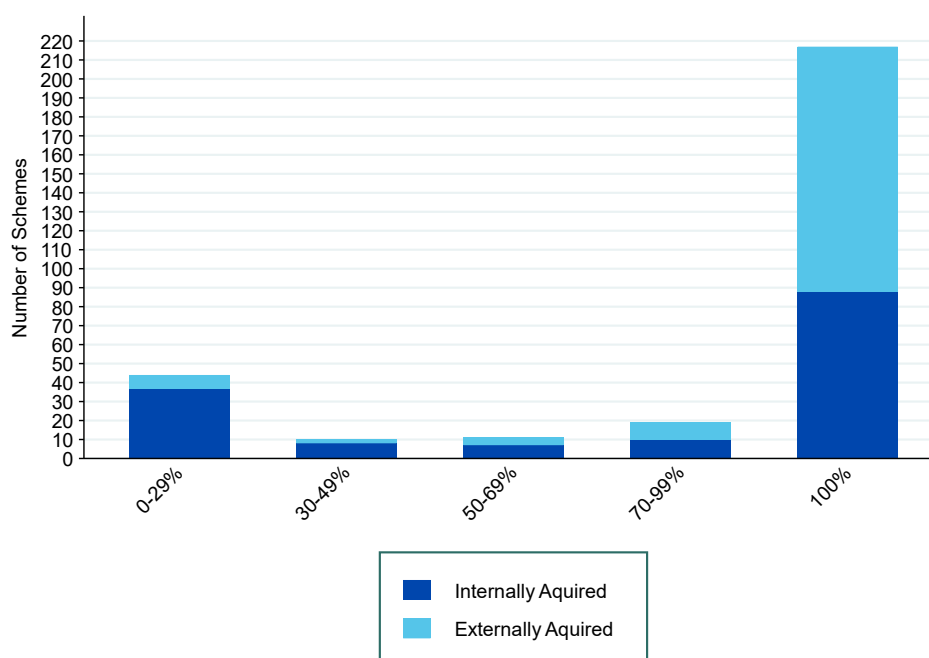


Source: CMA Analysis, Parties' Data

142. The chart shows that [redacted] has the lowest proportion of schemes in FM [16%] but when broken down between engagement 14% of all their customers were disengaged and acquired internally.

143. Levels of engagement can also vary by the proportion of Assets which have been delegated. Figure 12 shows a stacked bar chart of the number of FM schemes within each band on delegation. In light blue is the number of schemes within each band that were Externally Acquired. The dark blue bars show the number of schemes that were acquired internally.

Figure 12: Stacked Bar chart showing the number of schemes broken down by level of delegation and acquisition type.



Source: CMA Analysis, Parties' Data

144. Figure 12 shows a greater proportion of schemes with full FM have been acquired externally compared to Partial mandates. The mandates with the highest rate of internal acquisitions are those with the lowest levels of delegation.

Variation in outcomes

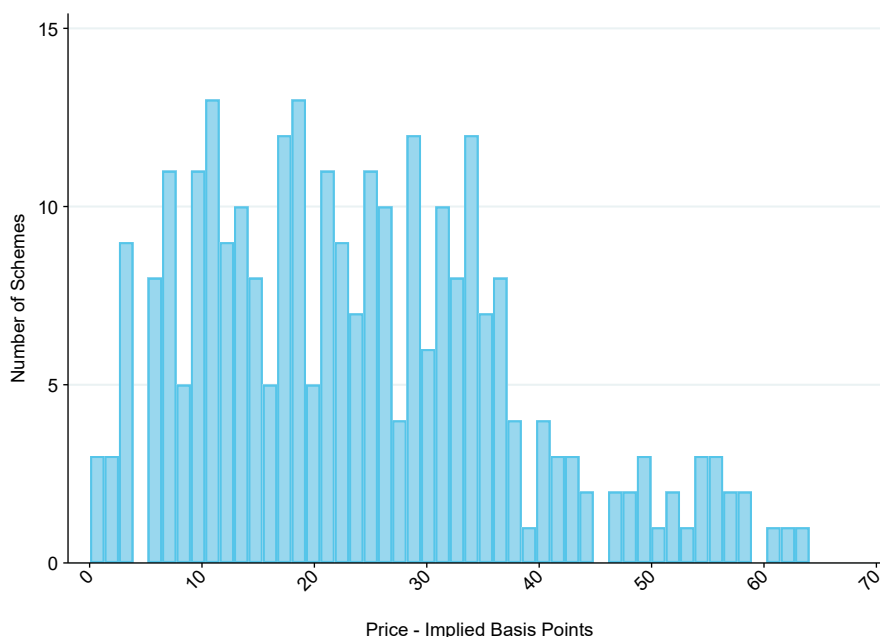
145. The nature of services purchased by trustees may vary substantially even within the same IC. This may occur because much advice is tailored to the specific characteristics of pension schemes, because schemes require different levels of detail, because some schemes believe services such as liability hedging are necessary whereas others do not, and potentially, because the quality of advice may vary by client and firm.
146. Assessing variation in market outcomes is therefore less straightforward in this market than in markets for homogenous products.⁶⁸ As such, considering variation in fees and other market outcomes without accounting for variations

⁶⁸ In our [Energy Market Investigation](#), we conducted similar analysis to assess variation in prices, noting that the wide variation identified was 'particularly striking since electricity and gas are entirely homogenous products' .

in the services received could be misleading. Nevertheless, it is a useful descriptive statistic.

147. Figure 13 shows the distribution of implied basis points for schemes. The chart shows there is a tail to the distribution of prices, with a few schemes paying a relatively high amount. The histogram shows a large amount of variation in FM prices.

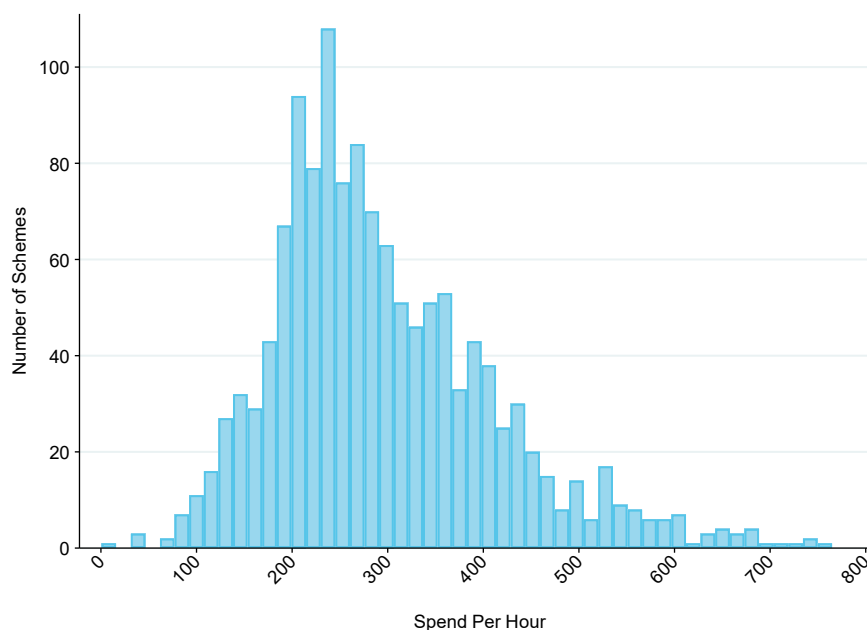
Figure 13: Histogram of FM Spend in implied basis points



Source: CMA Analysis, Parties' Data

148. As regards Investment Consulting, Figure 14 shows the distribution of spend *per hour*. The percentage of schemes who have the given level of spend per hour shown on the horizontal axis is shown on the vertical axis.

Figure 14: histogram of IC spends per hour of service.



149. We consider that Figure 13 and Figure 14 demonstrate there is significant variation in spend when looking at the simple distribution.

Comparison of averages

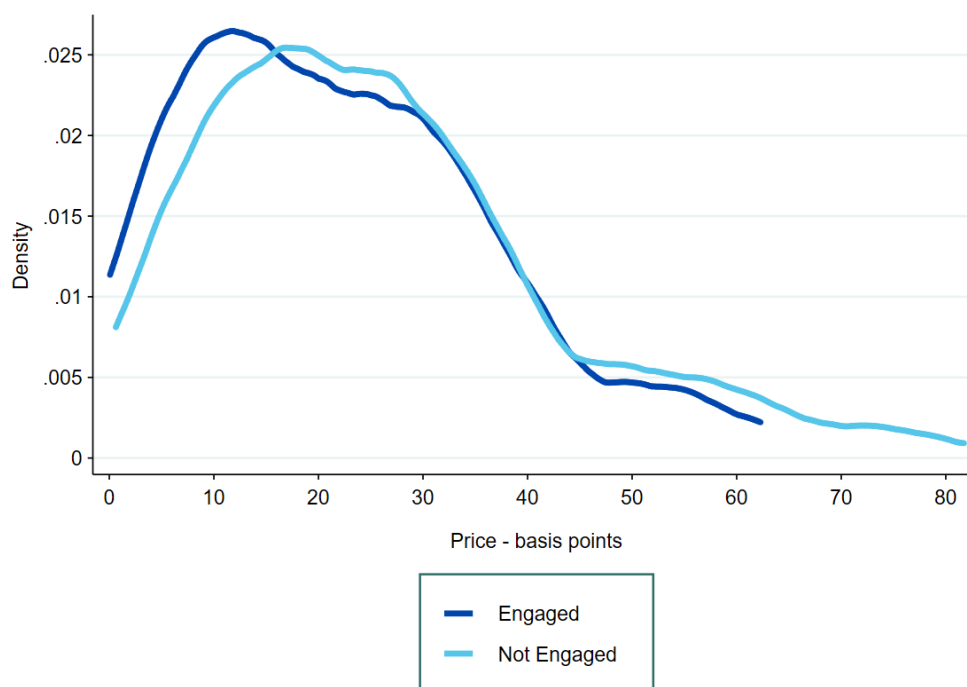
150. As noted in the main body, we have also undertaken additional analysis to understand the relationship between engagement and spend/prices. This section provides additional analysis underlying the statements made in the main body where further detail is necessary.

FM static analysis

151. As set out above, we have also compared the distributions of price for engaged and disengaged schemes in FM. If disengaged schemes paid more, we would expect to see the distribution of spend shifted to the right.
152. Figure 14 shows a K density plot of spend per hour. Once again spend per hour is plotted on the horizontal axis, however on the vertical axis we have density.⁶⁹ In Figure 15 there are two kdensity plots. Firstly, the dark blue line shows the distribution of engaged schemes, secondly the light blue line shows the distribution of disengaged schemes.

⁶⁹ Density should be interpreted as the area under which we expect a given number of schemes to fall, a density of 1 is equivalent to expecting 100% of schemes to fall at that value.

Figure 15: Distribution of FM 2016 prices, split by engagement



Source: CMA Analysis, Parties' Data

153. Figure 15 shows that at lower levels of implied basis points, there are more engaged schemes once schemes are paying over 30 basis points, the distribution of engaged and not engaged schemes converge meaning the two groups are paying similar proportion of schemes paying that amount

FM transition analysis.

154. In the main body, paragraph 81, we note that we have compared average prices for engaged and disengaged schemes within the same firm. We show there the analysis underlying this statement. We show this in the same presentational style as the charts in the main body, that is by showing the disengaged-engaged price differential in a dot chart.

Figure 16: Median FM price differential between disengaged and engaged schemes, split by firm⁷⁰

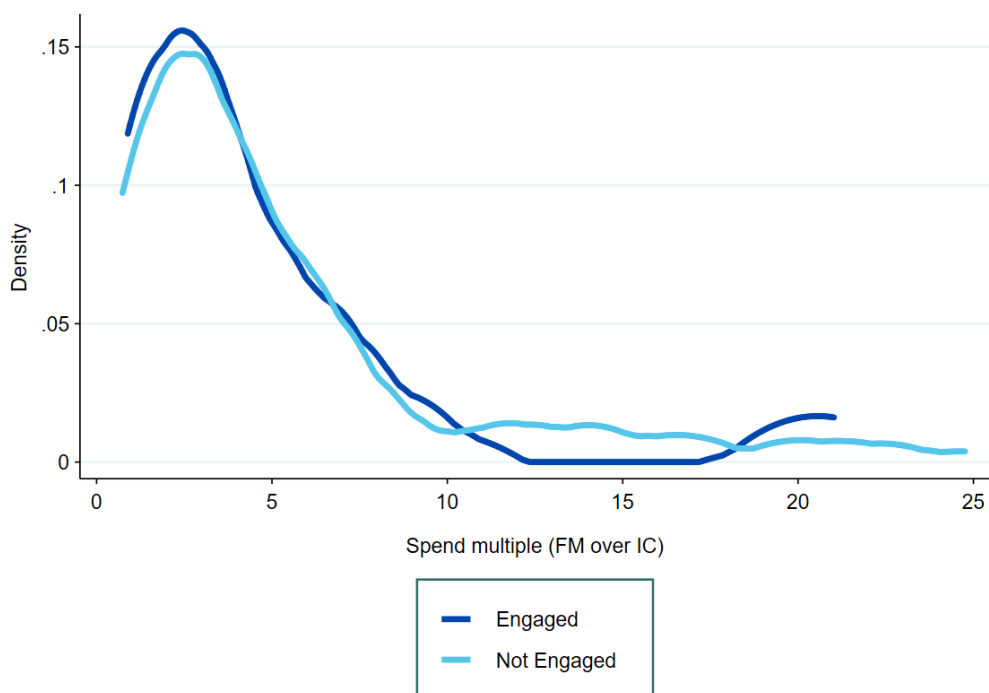


Source: CMA Analysis, Parties' data

⁷⁰ River and Mercantile do not have results shown for Externally Acquired schemes because all such schemes have at least one engagement indicator in their data. As such, the difference in price between those which have an indicator and those which do not cannot be computed.

155. This analysis shows that disengaged schemes (the red dots) generally, although not always, have faced higher prices than their engaged counterparts within the same firm (the dark blue lines).
156. In the main body, paragraph 81, we note that there remains significant variation in the amount schemes' spend increases when moving into FM, relative to their IC spend. We provide the analysis underlying this statement here. Below, Figure 17 shows the two density plots for the ratio of spend in. Firstly, the dark blue line shows the distribution of engaged schemes, secondly the light blue line shows the distribution of disengaged schemes

Figure 17: Distribution of IC-FM spend multiples, split by engagement

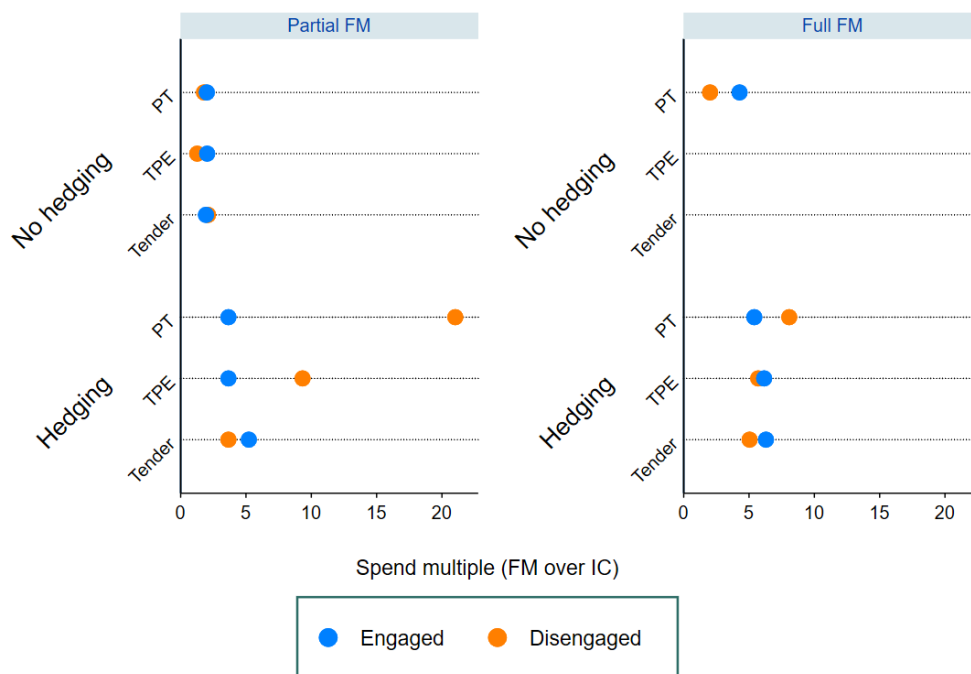


Source: CMA Analysis, Parties' Data

157. Figure 17 above shows that the increase in spend is generally less than ten times the initial IC spend, and for a high proportion of scheme face an increase of less than five times. In some cases, the increase is over 20 times, this may reflect schemes who do not buy the full range of services moving into FM such as schemes who undertake project work before moving into FM. Equally some of the lesser increases in FM may be due to schemes moving into partial FM with a small amount of delegation.
158. This chart in itself does not, unlike the static analysis chart, provide evidence that disengaged schemes receive worse market outcomes as there are many key factors which are not controlled for in this analysis.

159. In the main body, we also note that the relationship between engagement and IC-FM spend multiple is not clear cut when we break the data down into the subgroups used as part of the FM transition analysis. We show the results underlying this finding in Figure 18 below.⁷¹

Figure 18: Spend multiples (FM over IC), partial/full FM and whether scheme purchases hedging in FM, for different measures of engagement



Each line cuts the data in a different way: they are not mutually exclusive

Source: CMA Analysis, Parties' Data

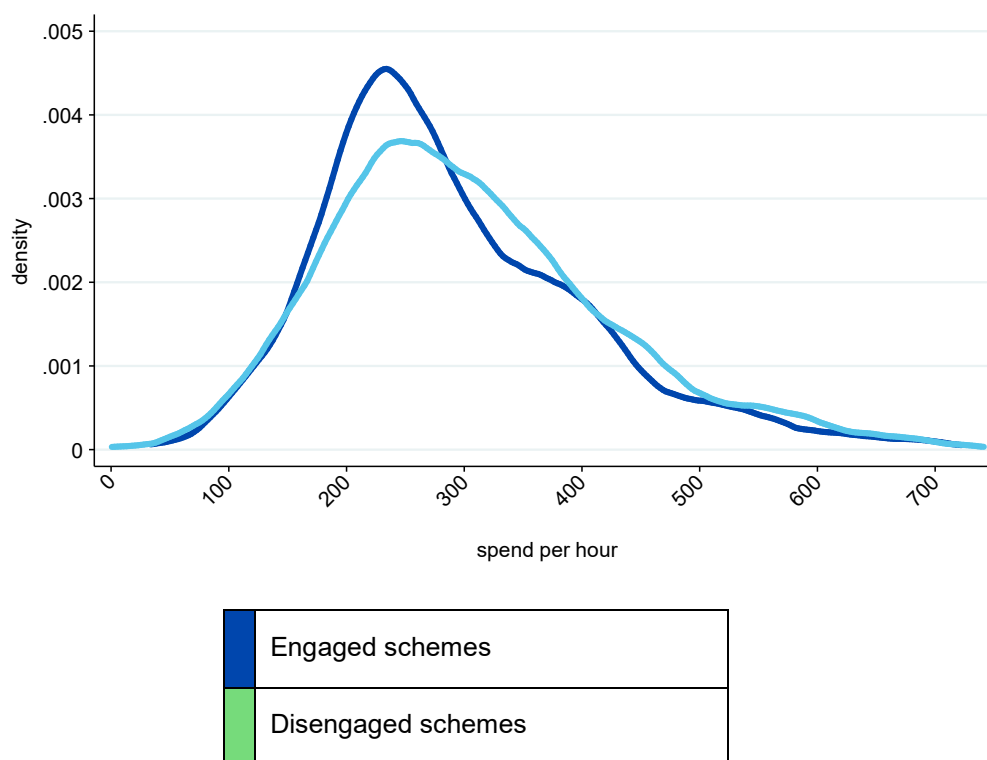
160. Figure 18 does not show any particular relationship between the spend increase and engagement: in some subgroups, disengaged schemes pay more, whereas in others they pay less.
161. We have included this chart in part for completeness, in part to show that the relationship apparent in Figure 18 arises by treating different forms of engagement as having an equal effect, and in part to show that when splitting an already small sample size into subgroups, it is difficult to draw any robust conclusions. We can account for these latter two issues more fully in the regression approach and sensitivities set out in the main body, and for which we have provided more technical detail below.

⁷¹ Each horizontal line represents a comparison on a different measure of engagement, made for the first three lines on schemes which do not purchase hedging, and for the last three lines on schemes which do purchase hedging. The left hand panel shows the IC-FM spend multiples for partial FM schemes, and the right hand panel shows this multiple for full FM schemes. Orange dots represent the spend multiples for schemes which are not engaged on the measure listed at the left hand side of the line, blue dots schemes which are engaged on that measure.

IC static analysis

162. In addition to the IC analysis, we have produced the density plot for IC schemes in Figure 19 below. We see that the schemes who are engaged (Dark blue line) have a greater proportion of schemes with a lower spend per hour. This indicates that disengaged schemes face higher prices on average, but there may be many confounding factors which give rise to this result.

Figure 19: k density plot of IC spends per hour of service.



Source: CMA Analysis, Parties' Data

Econometric Analysis

163. We have undertaken econometric analysis of the relationship between engagement and prices paid by pension schemes. We provided the key insights from this work in the main body.
164. Here, we provide detail of our approach, discuss key methodological points, and set out the initial results of the sensitivity checks we have conducted. We run through this discussion for the FM static analysis; the FM transition analysis and the IC analysis in turn.

Framework

165. In analysing the benefits of engagement, we have run OLS regressions of the following form:

$$\log(M_i) = \alpha + E_i'\beta + C_i'\gamma + \varepsilon_i$$

166. Where subscript i denotes an individual scheme, M is the log of a continuous variable of market outcomes. In the FM static analysis, this is the implied price per pound of asset under management faced by the scheme;⁷² in the FM transition analysis it is the IC-FM spend multiple; and in the IC analysis it is implied price per hour.⁷³

167. E denotes a vector of dummy variables indicating whether the scheme is engaged in various ways.

(a) In the FM static approach, we use two dummy variables derived from the client's acquisition type: (i) one denoting whether the scheme is Internally Acquired and engaged (i.e. has at least one of the three engagement proxies set out above), and a second denoting whether the scheme was Externally Acquired.⁷⁴

(b) In the FM transition approach, we use one dummy variable indicating whether the scheme is engaged.⁷⁵

(c) In the IC analysis, we use one dummy variable indicating whether the scheme is engaged.⁷⁶

168. C denotes a vector of control variables to account for drivers of log price which are potentially correlated with the engagement dummies. The set of controls used varies slightly between analyses.

169. The error term, ε , captures other factors that affect the log of price which are not captured by the explanatory variables.

170. The effects of primary interest are in the coefficient vector β' . That is, we are interested in the coefficient on our measures of engagement. γ' represents

⁷² Because prices are generally expressed as a percentage of the value of assets under management, we calculate implied prices as total spend divided by assets under management, and multiply the resulting figure by 10,000 to express the price in basis points as is conventional.

⁷³ Prime denotes a row vector.

⁷⁴ The base category is therefore disengaged Internally Acquired schemes. We do not include a dummy for disengaged Internally Acquired schemes to avoid multi-collinearity.

⁷⁵ The base category is therefore disengaged Internally Acquired schemes. There are no Externally Acquired schemes in this analysis.

⁷⁶ The base category is therefore disengaged schemes. The concept of internal and external acquisition is not relevant to IC, given how we have defined these terms.

another vector of coefficients for the control variables. These are of interest only insofar as is useful to establish the reliability of our estimate of the abovementioned effects. α denotes the constant.

171. We log the dependent variable because we expect that any increase or decrease in spend will vary with the level of the price. That is, we consider that the regression is non-linear in price but is likely to be linear in the log of price. In support of this, we note that the relationship in simple scatter plots between a key determinant of price (AUM) and price itself is approximately linear. Again, we test the robustness of the model to including price in levels.

Control variables

172. We use a range of control variables in C' across different specifications. We define the variables below for clarity:

- (a) **Hedging:** A dummy variable which takes 1 if the scheme purchases bespoke liability hedging, and 0 otherwise. Bespoke liability hedging appears to be an expensive service (albeit one which appears to have brought significant benefits to pension schemes in recent years). We have found that hedging is disproportionately purchased by engaged schemes, and therefore it is important to control for this.
- (b) **Value of assets:** The log of scheme assets under management/assets under advice. FM/IC prices generally fall with the level of assets invested with the fiduciary manager. As such, we include a measure of this. We take logs because the effect of scheme size is likely to be nonlinear.
- (c) **Partial/full FM:** A continuous variable which indicates the proportion of scheme assets which are delegated.⁷⁷ Schemes which have lower levels of delegation are likely to be charged less, all being equal.⁷⁸
- (d) **Number of asset managers:** The log of the number of asset managers used to manage the scheme's assets. We consider this will help control for differing complexity in the implementation of advice across schemes.

⁷⁷ Our data is not fully continuous, taking values of 0, 1-29%, 30-49%, 50-69%, 70-99%, 100%. We take the midpoints of these ranges. Arguably, a theoretically better specification would be to include this variable in nonparametric form by including dummy variables. We have not taken this approach in our baseline model for pragmatic reasons: we do not have a large number of observations and as such face practical limits on the number of variables we can include. Nevertheless, we undertake a robustness check including this information in a set of dummies, and find the results do not change our conclusions.

⁷⁸ We note that some of this effect will be captured in the AUM variable. Nevertheless, there may be additional factors specific to the proportion of assets delegated which can influence prices. We control for these.

We include the variable in logs to account for likely nonlinearities in the effect of this measure.

- (e) **Number of asset management products:** We include the number of AM products (in logs) purchased by the scheme as an additional proxy for complexity
- (f) **Firm indicators:** A set of firm fixed effects, consisting in a dummy variable for each firm, which takes 1 if the scheme purchases FM/IC services from that firm, and 0 otherwise. We include these in the baseline regression to account for the possibility of systematic differences in firms' (i) complexity of services (ii) coding approaches in providing data to us.
- (g) **Year of mandate acquisition:** A set of dummies which identify the year the scheme moved into FM/IC. For example, a dummy for the year 2015 which takes 1 if the scheme moved into FM in 2015, and 0 otherwise, together with equivalent dummies for all other years schemes in our data might have moved into FM. We include these to account for the possibility that schemes moving in different years, at which point long term contracts⁷⁹ may be signed. The same variable should also account for any direct influence of the length of time schemes have been in FM/IC on price.⁸⁰
- (h) **Performance fees:** A dummy variable which takes 1 if the scheme has a performance fee and 0 otherwise. Engaged schemes are disproportionately likely to have performance fees. Schemes with performance fees will pay more on average if performance has been strong, and less otherwise.
- (i) **Fixed fees:** We include a dummy variable for schemes which have a fixed component to their fees, to allow average charge rates to differ from schemes which only use ad valorem and/or performance fees.
- (j) **Scheme type:** We include a dummy variable for hybrid schemes. These schemes might be more complicated and therefore might face higher prices
- (k) **Client restrictions:** We include a set of dummy variables on three types of restrictions schemes may place on their FM provider. In particular, we allow average prices to vary depending on whether schemes place

⁷⁹ Or at least starting values for FM prices which will likely influence prices in later years.

⁸⁰ We use a set of dummies rather than a continuous variable to increase the flexibility of our specification.

restrictions or require deviations in the FM's approach to hedging, and/or consultation with the client as changes to investments are implemented.

- (l) **FM services:** We include dummies for whether the client purchases 'Monitoring and De-risking Service' and/or 'Strategic Asset Allocation Advice' from their FM provider
- (m) **Actuarial services:** We include a dummy for whether the FM/IC provider received revenues for actuarial services. Bundling may reduce costs, or could be associated with higher prices if it captures any additional scheme complexity or residual disengagement.
- (n) **Hours of service purchased:** For IC, we have reasonably good data on the number of hours service provided to each client. We control for this as a proxy for complexity. We do not have usable data for FM.

Endogeneity and limitations

- 173. In paragraph 66, we note that there are significant challenges in estimating the relationship between engagement and market outcomes. In particular, we can only proxy for engagement; we can imperfectly measure the complexity of the services given to schemes; that there may be more complicated causal relationships involved than we have modelled; and that some analyses can only be conducted using a limited number of schemes. Taking these in turn:
- 174. 'Engagement' is essentially unobservable, and therefore we have estimated the effect of having any of three engagement indicators (as well as having each individually in robustness checks). We consider these are likely to be reasonable but imperfect proxies.⁸¹ As such, there is likely to be a degree of proxy and measurement error in the independent variable of interest. This would result in attenuation bias, understating the true effect of engagement.
- 175. We include a number of control variables which are intended to account for differing complexity of the services received by schemes. However, it is possible we do not control fully for complexity, giving rise to omitted variable bias. We are unable to investigate this possibility in any formal way within the scope of this exercise. However, even if it is true, we initially consider that the likely effect would be upwards bias in the engagement coefficient. That is,

⁸¹ Measurement error: Some engaged schemes may not be picked up (if, for example, the Parties had no record of the scheme having tendered, or if they engage in the market in other ways such as by using internal advisors). Conversely, some schemes which are not very engaged may be picked up (if, for example, the Parties believed the scheme had used a TPE but in fact they had not). Proxy error: the indicators we have chosen are imperfect proxies for engagement, even if perfectly measured.

because more engaged schemes are likely to be more complex, modelled spend for engaged schemes would be higher than if we had a variable to measure complexity. As such, the effect of engagement could be understated.

176. It is also possible that whilst high engagement reduces prices, high prices might increase engagement.⁸² That is, simultaneity could result in bias to the coefficients. We are unable to investigate this possibility in any formal way within the scope of this exercise. However, even if it is true, we initially consider that the likely effect would be upwards bias in the engagement coefficient. That is, if engagement is increasing in price, and price is decreasing in engagement, the identified effect of engagement on price will be lower than the 'true' value. As such, the effect of engagement could be understated.
177. We have also noted that the number of data points in several analyses is quite low. This could have a number of effects on our analysis. Most notably, it (i) reduces the power of our statistical tests, and (ii) if certain scheme types are overrepresented in the data, could give rise to bias.
178. Given that we appear to have sufficiently high-quality variation to identify an effect, the first does not appear to be a concern. The second does not appear overly concerning given that we appear to have a good mix of all scheme types in the final data, which covers a high proportion of eligible schemes.⁸³
179. In the round, whilst we note that the above factors could have an effect on our analysis, we do not initially consider that they are likely to undermine the validity of our emerging findings from the regression analysis. Further, the regression analysis is only one part of our overall assessment in this topic.

FM static approach

180. For this analysis, our baseline regression results are in column (0) below follows. We also report the results of the six core sensitivities for which we

⁸² At least for tendering, we think there are good reasons why the issue is not likely to be very concerning for our analysis of FM schemes. This is because we consider whether the mandate was acquired through tender, and assess prices post-acquisition. As such, high FM prices from the scheme's current provider will not have led to tendering as measured. Usage of TPEs to evaluate the move into FM is unlikely to be a function of post-transition prices, but the usage of TPEs to monitor the FM provider post transition could be. The same could be true of professional trustees. However, given that a high proportion of schemes in our data have been using FM for only a few years, we do not consider this to be likely to have a big effect.

⁸³ We recognise however that characteristics of schemes outside the 5 IC-FM firms which we have analysed are somewhat different: on a simple comparison of means, they appear to be smaller, more engaged, more recently acquired, more likely to have performance fees, more likely to use full FM and more likely to use bespoke liability hedging and to pay more. We ran our baseline regression on the full sample and found that our results did not change in any notable way.

reported coefficients in the main body. The dependent variable is log of implied price. Figures are rounded to two decimal places.⁸⁴

⁸⁴ In these tables, and their summary versions above, we always use heteroskedasticity robust standard errors as calculated by stata.

Table 11: Baseline results and core sensitivities for the FM static approach

	(0)	(1)	(2)	(3)	(4)	(5)	(6)
	<i>Baseline</i>	<i>Baseline, Transition Approach</i>	<i>Without firm Fes</i>	<i>Splitting ext. acquired into Eng vs Diseng.</i>	<i>Tender only</i>	<i>TPE only</i>	<i>PT only</i>
Any Engagement Indicator, Internally Acquired (Dummy)	-0.28** (0.02)	-0.25*** (0.01)	-0.30** (0.01)	-0.27** (0.02)			
All Externally Acquired (Dummy)	-0.16 (0.12)	-0.07 (0.31)	-0.13 (0.18)		-0.10 (0.25)	-0.08 (0.37)	-0.05 (0.57)
Tendered, Internally Acquired (Dummy)					-0.34*** (0.00)		
TPE, Internally Acquired (Dummy)						-0.26 (0.12)	
PT, Internally Acquired (Dummy)							-0.06 (0.66)
Any Engagement Indicator, Externally Acquired (Dummy)				-0.12 (0.25)			
No Engagement Indicators, Externally Acquired (Dummy)				-0.22			

	(0)	(1)	(2)	(3)	(4)	(5)	(6)
	<i>Baseline</i>	<i>Baseline, Transition Approach</i>	<i>Without firm Fes</i>	<i>Splitting ext. acquired into Eng vs Diseng.</i>	<i>Tender only</i>	<i>TPE only</i>	<i>PT only</i>
				(0.11)			
Client buys hedging (Dummy)	0.25** (0.04)	0.34*** (0.01)	0.29** (0.03)	0.24* (0.06)	0.27** (0.04)	0.23* (0.08)	0.23* (0.09)
Performance fee (Dummy)	0.32* (0.06)		0.45*** (0.00)	0.32* (0.06)	0.31* (0.07)	0.31* (0.08)	0.29* (0.10)
Number of AM Firms (Log)	0.14*** (0.00)		0.05 (0.14)	0.14*** (0.00)	0.13*** (0.01)	0.15*** (0.00)	0.15*** (0.00)
AUM (Logs)	-0.38*** (0.00)	-0.37*** (0.00)	-0.36*** (0.00)	-0.38*** (0.00)	-0.39*** (0.00)	-0.39*** (0.00)	-0.40*** (0.00)
FM ID: Mercer (Dummy)	[X] [X]	[X] [X]		[X] [X]	[X] [X]	[X] [X]	[X] [X]
FMID: River & Mercantile (Dummy)	[X] [X]	[X] [X]		[X] [X]	[X] [X]	[X] [X]	[X] [X]
FMID: WTW (Dummy)	[X] [X]	[X] [X]		[X] [X]	[X] [X]	[X] [X]	[X] [X]
FM ID: JLT (Dummy)		[X] [X]					

	(0)	(1)	(2)	(3)	(4)	(5)	(6)
	<i>Baseline</i>	<i>Baseline, Transition Approach</i>	<i>Without firm Fes</i>	<i>Splitting ext. acquired into Eng vs Diseng.</i>	<i>Tender only</i>	<i>TPE only</i>	<i>PT only</i>
Percent assets in FM (Cont, pp)	0.00 (0.21)	0.00* (0.08)	0.00 (0.11)	0.00 (0.19)	0.00 (0.12)	0.00 (0.17)	0.00 (0.19)
Constant	9.67*** (0.00)	9.52*** (0.00)	9.07*** (0.00)	9.68*** (0.00)	9.63*** (0.00)	9.77*** (0.00)	9.86*** (0.00)
Observations	193	290	193	193	193	193	193
Adjusted R-squared	0.554	0.565	0.542	0.553	0.552	0.548	0.540

p-values in parentheses * p<0.10 ** p<0.05 *** p<0.01
Source: CMA Analysis; Parties' Data

181. We note that the control variables generally have the expected sign or are insignificant. The coefficient of primary interest (the comparison between prices paid by engaged, internal schemes and disengaged, internal schemes) is always statistically and economically significant. The coefficient on Externally Acquired schemes is occasionally statistically and economically significant.
182. In a further robustness checks, not reported for the sake of brevity, we find that the results are robust to using log spend rather than price per unit of AUM – the p-value on Internally Acquired and engaged schemes is 2%, and 12% for Externally Acquired schemes. When using the dependent variable in levels, the p-value drops to 10% for Internally Acquired and engaged schemes, although the coefficient remains negative and economically significant (-4.08bps).⁸⁵

FM transition approach

183. For this analysis, we undertake a regression of the form set out above. Since we are analysing schemes' transition into FM, this only affects the dependent variable, which is the IC-FM spend multiple (that is, the average of each schemes' FM spend post transition, divided by the average of their IC spend⁸⁶ pre transition). The model is therefore cross-sectional in structure.⁸⁷
184. For this analysis, our baseline regression results are in column (0) below follows. We also report the results of the six core sensitivities for which we reported coefficients in the main body.

Table 12: FM Transition Analysis, Baseline and Core Sensitivities, Full Table

	<i>Baseline</i>	<i>Baseline, Static Approach</i>	<i>DB/Hybrid only; w/ hybrid control</i>	<i>Schemes buying 2+ IC services only</i>	<i>Tender only</i>	<i>TPE only</i>	<i>PT only</i>
Tender, TPE or PT	-0.31** (0.04)	-0.26 (0.17)	-0.27* (0.08)	-0.25 (0.24)			
							-0.43**

⁸⁵ The p-value on Externally Acquired schemes is very high and the coefficient much smaller.

⁸⁶ We use spend rather than price as we do not have reliable timeseries data of AUM for many schemes.

⁸⁷ We consider this has advantages over a timeseries structure (for example, a model of spend because we can allow the increase in spend to vary according to scheme characteristics more easily. Arguably, it is also more intuitive.

	Baseline	Baseline, Static Approach	DB/Hybrid only; w/ hybrid control	Schemes buying 2+ IC services only	Tender only	TPE only	PT only
Tender (dummy)					(0.05)		
TPE (dummy)						-0.23 (0.31)	
PT (dummy)							-0.28* (0.10)
% Delegation (cont, pp)	0.01*** (0.00)	0.01** (0.03)	0.01*** (0.00)	0.01*** (0.01)	0.01*** (0.00)	0.01*** (0.00)	0.01*** (0.00)
AUM (logs)	0.11** (0.04)	0.13** (0.05)	0.12** (0.02)	0.16** (0.03)	0.10* (0.06)	0.09* (0.10)	0.10* (0.06)
Client buys hedging (dummy)	0.42*** (0.01)	0.54* (0.06)	0.33** (0.04)	0.58** (0.04)	0.52*** (0.00)	0.40** (0.01)	0.33** (0.04)
Performance fee (dummy)		-0.97 (0.23)					
Number of AMs (logs)		0.07 (0.42)					
FM ID: Aon (dummy)		[X]					
FM ID: Mercer (dummy)		[X]					
FM ID: River & Mercantile (dummy)		[X]					
FM ID: WTW (dummy)		0.00 ⁸⁸ (.)					
Hybrid (dummy)			-0.58** (0.01)				
Constant	-1.61	-0.83	-1.87*	-2.48*	-1.51	-1.29	-1.44

⁸⁸ Although WTW are omitted from this regression, and hence have null values in the table, their data is included in the baseline. They are omitted here due to missing data. Mercer is the base category.

	<i>Baseline</i>	<i>Baseline, Static Approach</i>	<i>DB/Hybrid only; w/ hybrid control</i>	<i>Schemes buying 2+ IC services only</i>	<i>Tender only</i>	<i>TPE only</i>	<i>PT only</i>
	(0.11)	(0.55)	(0.06)	(0.05)	(0.13)	(0.20)	(0.15)
Observations	104	60	101	51	104	104	104
Adjusted R-squared	0.345	0.490	0.373	0.455	0.344	0.325	0.336

p-values in parentheses * p<0.10 ** p<0.05 *** p<0.01

Source: CMA Analysis; Parties' Data

185. We have also undertaken several additional sensitivities which are provided in the following table. These sensitivities are broadly the same as we conducted in the static analysis

Table 13: FM Transition Analysis, Additional Sensitivities, Full Table

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	<i>FullFM only</i>	<i>NP %Partial</i>	<i>Perf Fee</i>	<i>Client restrictions</i>	<i>FM Services</i>	<i>AM count</i>	<i>Years FM</i>	<i>Levels</i>
Tender, TPE or PT (dummy)	-0.31 (0.12)	-0.32** (0.04)	-0.32** (0.04)	-0.30* (0.05)	-0.31** (0.04)	-0.30 (0.12)	-0.27* (0.08)	-1.91* (0.06)
AUM (logs)	0.06 (0.49)	0.11* (0.06)	0.12** (0.03)	0.11** (0.05)	0.11** (0.04)	0.15** (0.03)	0.10* (0.09)	0.77** (0.04)
Client buys hedging (dummy)	0.44** (0.05)	0.45*** (0.01)	0.35** (0.05)	0.30* (0.09)	0.45** (0.02)	0.60** (0.03)	0.40** (0.01)	1.66 (0.13)
30-49% Delegation (dummy)		-0.06 (0.93)						
50-69% Delegation (dummy)		0.50 (0.11)						
70-99% Delegation (dummy)		0.67** (0.02)						
100% Delegation (dummy)		0.98*** (0.00)						
% Delegation (linear, pp)			0.01*** (0.00)	0.01*** (0.00)	0.01*** (0.00)	0.01** (0.02)	0.01*** (0.00)	0.05*** (0.00)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	<i>FullFM only</i>	<i>NP %Partial</i>	<i>Perf Fee</i>	<i>Client restrictions</i>	<i>FM Services</i>	<i>AM count</i>	<i>Years FM</i>	<i>Levels</i>
Performance Fee (dummy)			0.19 (0.42)					
Client has hedging restriction (dummy)				0.28 (0.41)				
Client has consultation restriction (dummy)				0.42 (0.23)				
Client has restriction on assets (dummy)				0.02 (0.89)				
Buys Monitor/Derisking Service (dummy)					-0.06 (0.76)			
Number of Asset Managers (logs)						-0.03 (0.74)		
Mandate acquired in 2012 (dummy)							0.00 (.)	
							-0.33	

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	<i>FullFM only</i>	<i>NP %Partial</i>	<i>Perf Fee</i>	<i>Client restrictions</i>	<i>FM Services</i>	<i>AM count</i>	<i>Years FM</i>	<i>Levels</i>
Mandate acquired in 2013 (dummy)							(0.18)	
Mandate acquired in 2014 (dummy)							-0.16 (0.53)	
Mandate acquired in 2015 (dummy)							-0.09 (0.68)	
Constant	0.47 (0.75)	-1.36 (0.19)	-1.73* (0.09)	-1.59 (0.13)	-1.63 (0.11)	-2.22* (0.07)	-1.22 (0.27)	-12.10* (0.08)
Observations	63	104	104	101	104	60	104	104
Adjusted R- squared	0.086	0.328	0.343	0.348	0.339	0.456	0.344	0.152
p-values in parentheses *								
p<0.10 ** p<0.05								
*** p<0.01								

Source: CMA Analysis, Parties' Data

IC analysis

186. For IC, we have conducted a similar static analysis as for FM. Given that a majority of schemes use fees which are at least partially charged on an hourly basis, we have taken as the dependent variable fees charged per hour.
187. We adapt the set of control variables slightly from that used in FM in order to apply the analysis to the IC context. For example, we include number of hours because this is more relevant to IC (and we do not have good data on this in FM), and exclude controls such as percentage of assets delegated as this is relevant to FM.⁸⁹
188. We present results which do not include IC-specific fixed effects first:

⁸⁹ We also exclude asset manager information because we either did not receive this data or received data which it was not possible to process sufficiently, for some firms in the IC sample, which considers a wider range of providers.

Table 14: Baseline and core sensitivities for the IC analysis

	(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	<i>Baseline</i>	<i>Add Derisking</i>	<i>Remove min service restriction</i>	<i>Add Yr mandate gain</i>	<i>Hybrid Dummy</i>	<i>Tender only</i>	<i>TPE only</i>	<i>PT only</i>	<i>Structured bidding process</i>
Tender, TPE or PT (dummy)	-0.10*** (0.00)	-0.10*** (0.01)	-0.09** (0.01)	-0.13* (0.06)	-0.11*** (0.00)				
Tender (dummy)						-0.10*** (0.00)			
TPE (dummy)							-0.01 (0.87)		
PT (dummy)								-0.08*** (0.00)	
Structured Bidding Process (dummy)									-0.17*** (0.00)
AUM (logs)	0.19*** (0.00)	0.19*** (0.00)	0.14*** (0.00)	0.22*** (0.00)	0.19*** (0.00)	0.19*** (0.00)	0.19*** (0.00)	0.19*** (0.00)	0.19*** (0.00)
Buys Liability Hedging (dummy)	0.08** (0.03)	-0.02 (0.76)	0.07* (0.10)	0.18*** (0.00)	0.08** (0.03)	0.08** (0.04)	0.07* (0.06)	0.08** (0.04)	0.04 (0.33)

	(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	<i>Baseline</i>	<i>Add Derisking</i>	<i>Remove min service restriction</i>	<i>Add Yr mandate gain</i>	<i>Hybrid Dummy</i>	<i>Tender only</i>	<i>TPE only</i>	<i>PT only</i>	<i>Structured bidding process</i>
Hours spent by consultant (logs)	-0.45*** (0.00)	-0.45*** (0.00)	-0.42*** (0.00)	-0.49*** (0.00)	-0.45*** (0.00)	-0.45*** (0.00)	-0.45*** (0.00)	-0.45*** (0.00)	-0.45*** (0.00)
Number of Services (cont)		0.09*** (0.01)							
Buys Monitor/Derisking Service (dummy)		-0.17*** (0.01)							
Acquired Mandate in 2012 (dummy)				-0.11 (0.13)					
Acquired Mandate in 2013 (dummy)				-0.09 (0.23)					
Acquired Mandate in 2014 (dummy)				-0.20*** (0.01)					
Acquired Mandate in 2015 (dummy)				-0.12* (0.10)					
Acquired Mandate in 2016 (dummy)				0.02 (0.86)					

	(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	<i>Baseline</i>	<i>Add Derisking</i>	<i>Remove min service restriction</i>	<i>Add Yr mandate gain</i>	<i>Hybrid Dummy</i>	<i>Tender only</i>	<i>TPE only</i>	<i>PT only</i>	<i>Structured bidding process</i>
Hybrid (dummy)					0.06 (0.13)				
Constant	4.70*** (0.00)	4.42*** (0.00)	5.48*** (0.00)	4.32*** (0.00)	4.67*** (0.00)	4.67*** (0.00)	4.69*** (0.00)	4.69*** (0.00)	4.72*** (0.00)
Observations	1013	1013	1198	364	1013	1013	1013	1013	1013
Adjusted R-squared	0.447	0.450	0.386	0.551	0.447	0.449	0.442	0.446	0.457

p-values in parentheses * p<0.10 ** p<0.05 *** p<0.01

Source: CMA Analysis; Parties' Data

189. In isolation, these results appear reasonably robust. Use of TPEs is highly insignificant in isolation, but this can be explained by the fact that our data request focussed on use of TPEs to (i) evaluate whether the scheme should move into FM, and (ii) monitor FM. As such, only a very small fraction of schemes in IC are recorded as having a TPE, and having one might not reduce IC prices directly at all (although it could still indicate that the scheme is engaged).
190. However, an important caveat to these results is that they are generally not robust to the inclusion of firm fixed effects. When we use firm fixed effects, the engagement coefficients become statistically insignificant. For brevity, we show the coefficients of interest only:⁹⁰

Table 15: Additional sensitivities for the IC analysis – including firm fixed effects

	(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Baseline	Add Derisking	Remove min service restriction	Add Yr mandate gain	Hybrid Dummy	Tender only	TPE only	PT only	SBP
Engagement (combined) ⁹¹	-0.01 (0.75)	-0.00 (0.95)	-0.03 (0.32)	-0.07 (0.18)	-0.01 (0.76)	-0.02 (0.56)	0.05 (0.29)	0.01 (0.78)	-0.04 (0.15)
Observations	957	957	1122	309	957	957	957	957	957
Adjusted R-squared	0.508	0.513	0.538	0.506	0.510	0.508	0.508	0.508	0.509

p-values in parentheses * p<0.10 ** p<0.05 *** p<0.01
Source: CMA Analysis; Parties' Data

191. Whilst this may be an indicator that engaged schemes choose particular firms which are cheaper, we note that within each firm there appears to be variation in engagement. We therefore consider that an equally plausible explanatory factor is that the data we have on IC is of insufficient quality to derive results that are more than indicative of an effect, and therefore cannot rule out with certainty that there is no such effect.⁹²
192. Our emerging view is that it is not productive to design and conduct an analysis which uses data on IC spend or prices through time. This is because

⁹⁰ Running the baseline regression on each firm individually leads to some coefficients which are statistically significant, but the direction of these effects can be positive or negative.

⁹¹ We show the coefficients for just tendering, just having a TPE, just having a PT or just running an SBP on the same line, rather than having a new line for each.

⁹² The emerging picture of the results does not change when we consider spend rather than spend per hour as the dependent variable.

we do not have access to data on number of hours spent providing schemes with services, except for 2016. Number of hours is a key confounding factor.⁹³

193. Considering this evidence in the round, whilst we note that there is some evidence that schemes which are engaged pay less, and therefore schemes which are disengaged pay more, we are unable to place more than indicative weight on the findings for IC.

⁹³ Whilst we faced a similar issue in FM as regards data on assets under management, we were able to conduct a different form of analysis exploiting the move into FM, which is not applicable for an IC-only analysis.