KPMG response to the CC’s Working Paper
“Econometric analysis of audit costs”

1 Introduction and Summary

1.1 This paper provides our response to the CC’s Working Paper on “Econometric analysis of audit costs” (the “Working Paper”).

1.2 We have not had access to the full dataset that the CC has used to carry out the econometric analysis set out in the Working Paper. Similarly, we have not been provided with the full econometric output, diagnostic tests and detailed results from robustness checks on the CC’s model. As a result, and because, of the redactions in the non-confidential version of the Working Paper, we are not in a position to comment on whether the CC’s econometric model is well-specified. Therefore, we cannot comment on whether this model can identify and quantify the correct causal impact of the explanatory variables on the outcomes the CC is trying to explain.

1.3 We consider that access to the full dataset would be part of the necessary information required for us to have a sufficient understanding of the position that the CC is developing.

1.4 The above remark notwithstanding, our own experience is consistent with some of the CC’s findings in this Working Paper, namely that:

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a) as we have previously submitted\(^2\), labour costs on an engagement decrease with auditor tenure, since there are “learning by doing” effects that materialise when performing statutory audits\(^3\);

b) as we have previously submitted\(^4\), the statutory audits of FTSE 350 companies (and in particular those of FTSE 100 companies) are costlier to provide than those of other listed or non-listed companies\(^5\); and

c) calculating engagement profitability for the first year of an engagement entails a number of challenges\(^6\).

1.5 In our view “learning by doing” takes place not only within an engagement, but also across engagements – we become more efficient at conducting a given client’s audit as the relationship progresses, but also more efficient at auditing similar large, complex businesses as we conduct a larger number of these engagements\(^7\). The Working Paper has found evidence consistent with “learning by doing” within an engagement (see our comment in paragraph 1.4a) above). However, we are concerned that the model will not be able to pick up these learning by doing effects across engagements in the model used in the Working Paper.

1.6 We agree with the general point that in many cases our costs do not increase in line with a client’s assets. However, it is incorrect to characterise this as an ‘economy of scale’, which occurs when an increase in a firm’s output leads to a less than proportionate increase in the firm’s costs. The reason why our costs

\(^{2}\) See, for example, paragraph 254 and 261, and more generally section 7 and section 8 of our Main Submission.

\(^{3}\) Paragraphs 71 and 72 of the Working Paper.

\(^{4}\) See, for example, our response to question 59 in the Market and Financial Questionnaire (MFQ).

\(^{5}\) Paragraph 74 of the Working Paper.

\(^{6}\) Paragraphs 32 and 72 of the Working Paper.

\(^{7}\) Paragraph 254 and 261, and more generally section 7 and section 8 of our Main Submission.
often do not increase in proportion to our client’s assets (or turnover) is because an increase in a client’s assets or turnover does not require a substantially higher amount of audit work. For instance, as a client’s assets or turnover increase, the materiality threshold changes and thus the amount of test work that is required by the audit firm will not rise proportionately. In addition, controls evaluation involves the same amount of work irrespective of how many transactions the client’s system processes. Therefore, the explanation for why our costs do not increase in proportion to a client’s assets is that our ‘output’ does not increase. As a result, we fail to see how this can be characterised as an ‘economy of scale’.

1.7 The CC states that “since economies of scale naturally tend to favour big firms over small, they are argued in some cases to constitute a barrier to entry”\(^8\). Overall, we do not consider that these “learning by doing” effects (and any associated scale economies) would represent an entry barrier, since other audit firms can also take advantage of similar efficiencies\(^9\).

2 Further comments on the CC’s methodology

2.1 As stated in paragraph 1.2, the fact that we cannot access the full dataset behind (nor the full econometric output from) the CC’s analysis in the Working Paper means that we are not able to fully scrutinise or comment on the analysis and the results. Nevertheless, we have identified a number of areas where there may be issues in the CC’s analysis, which we present in this section.

2.2 The Working Paper has focused on a narrow definition of costs (namely on labour costs specific to an engagement) to assess scale economies. It is not clear

\(^8\) Paragraph 4 of the Working Paper.

\(^9\) For example, in our hearing with the CC on 3 October (page 30) we discussed the strategies that in our view are available to smaller audit firms to expand their presence in the FTSE350.
to us whether an analysis of economies of scale focussing solely on labour costs is appropriate\(^\text{10}\). The CC has also discussed economies of scale in relation to certain categories of fixed costs in its working paper on “Economies of scale in operating costs” – similarly it is not clear to us whether this analysis of fixed costs in isolation is appropriate. We have commented on this analysis further in our response to the CC’s working paper on “Economies of scale in operating costs”.

2.3 Standard economic theory in relation to economies of scale measures the size of a firm’s output in terms of the units that firm produces. However, we have several concerns over the CC’s proxies for “output” used in the model:

- **First**, the Working Paper has found economies of scale in relation to a client’s size, which it has measured using the client’s assets. However, it is not clear to us how a client’s assets could be used as a proxy for “output” of audit firms.

- **Second**, client assets and client turnover are not in isolation good proxies for the size of the audit engagement. The size of an audit engagement will depend on the complexity of the audit, which as we have set out in previous submissions is not well proxied by a client’s turnover\(^\text{11}\). Similarly, in our view a client’s assets are not a good proxy for the complexity of an audit engagement (see paragraph 1.7). We discuss complexity further in paragraph 2.4 below.

- **Third**, we note that the CC, in its base model, has also used two further proxies for the output of each audit firm: the number of audit engagements in each sector and the total number of engagements in a year. We note that

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\(^{10}\) Paragraph 2 of the Working Paper.

\(^{11}\) Annex 3 of our Main Submission.
the CC found that the effect of the former on total labour costs was statistically weak and the latter was statistically insignificant once the client’s asset size was controlled for\textsuperscript{12}. As we set out in paragraph 1.5, we experience “learning by doing” across large complex engagements, which may not be fully captured by the measures of output the CC has used.

Fourth, the proxy for specialisation may be badly specified\textsuperscript{13}. The variable is defined as the number of companies audited in a given sector, or the total sum of assets of all clients in that sector. As a result, this does not take into account the fact that certain sectors contain fewer companies than others. For example, an audit firm auditing two large clients in a sector that has four companies may be more specialised than an audit firm that audits five clients in a sector with 20 companies in total.

2.4 The model used by the CC does not fully capture the extent of the complexity of an audit engagement or an audit client, as the CC only uses a few selected proxies. As we noted in paragraph 2.3 complexity is not well-proxied by a client’s turnover or assets. Moreover, in our view the additional variables suggested by the CC\textsuperscript{14} to control for complexity are also inadequate. The CC itself admits that its model may not have captured the full variation in complexity across engagements\textsuperscript{15}. We discuss client complexity and the CC’s suggested proxies further in our forthcoming response to the CC’s working paper “Characteristics of long audit tenure companies”.

\textsuperscript{12} Paragraphs 66 and 67 of the Working Paper.
\textsuperscript{13} Paragraph 51 of the Working Paper.
\textsuperscript{14} The CC notes that the variable ‘CLIENTGLOBAL’ is supposed to reflect the complexity of an engagement.
\textsuperscript{15} Paragraph 37 of the Working Paper.
2.5 The CC states that, based on the model used in the Working Paper, it has not identified any complementarities (synergies) across the provision of audit and non-audit services on the same engagement\textsuperscript{16}. That is, the CC states that it does not appear to be the case that providing more non-audit services to an audit client leads to lower labour costs of providing audit services to that client. This does not accord with our experience, but the extent of such synergies does vary according to the type of work and may not be significant to be detected by the CC’s model given the points noted in 2.4 above. Moreover, as we previously submitted\textsuperscript{17}, in our experience audit firms often build expertise in a sector and/or with a target audit client by providing non-audit services, so that we are as efficient as possible in the event that we are appointed as that client’s audit firm. However, upon being appointed, independence standards constrain the scope of non-audit services we can provide to that audit client. As a result, it might be that the CC’s model, which considers only audit and non-audit services provided at the same time, is unable to capture these efficiencies.

To calculate a proxy for partners’ labour costs, in its base model, the CC has scaled up the directors’ staff costs by the same ratio as that between partners’ scale rate and directors’ scale rate\textsuperscript{18} (the CC provides further, alternative, scale factors in Appendix 1 of the Working Paper, as robustness checks). We believe that this adjustment does not fully reflect the difference in costs between directors’ and partners’ time. We set out in our response to the CC’s working papers “Profitability – part 1” and “Profitability – part 2” what we believe, instead, to be a more accurate but nevertheless conservative estimate of the labour costs for partners, based on the median salary of the twenty per cent highest paid directors.

\textsuperscript{16} Paragraph 70 of the Working Paper.
\textsuperscript{17} See, for example, section 7.1 of our Main Submission.
\textsuperscript{18} Paragraph 20 of the Working Paper.