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Dear Dipen

Response to CC's Profitability Follow-up Questions

1 This is PwC's response to the calculation set out in Dipen Gadhia's e-mail to Ian Giles of 23 October 2012. As has been previously explained to the Competition Commission (CC)[1], we consider the calculation to be misconceived and provides no indication of the profitability of our audit business. In particular:

(a) Our audit profitability cannot be assessed by reference to partner remuneration. PwC UK operates as an integrated, multi-disciplinary practice, with all partners sharing in the profits of the firm as a whole. Audit accounted for just less than one quarter of revenue in FY11 (the year the CC's e-mail considers) and a smaller proportion of profits. It is therefore not informative to draw any conclusions in relation to the profitability of our audit business from partner remuneration figures, regardless of how closely associated the partners in question may personally be with the delivery of audit services.

(b) This is a return on capital employed (ROCE) approach. As the CC acknowledged in its working paper, *Profitability – part one* (**WP1**), such approaches cannot be reliably performed in relation to this market: "in undertaking a ROCE analysis for the audit market...any analysis was unlikely to be robust enough for us to be able to draw any conclusions from it" (paragraph 69). We agree with the CC's conclusion with regard to ROCE, and are therefore surprised that the CC is now asking us to comment on an example of ROCE analysis.

2 There are other problems with the calculation. Partner remuneration is sensitive to the number of partners admitted. This number is entirely a decision for each partnership, and there are differences in approach. For example, we understand that some professional services partnerships admit "salaried partners" who in our firm would be titled "directors". Differences in such practices could cause significant and misleading variations in the average individual partner remuneration figures used in the CC's calculation which are not reflective of underlying business profitability. Similarly, there may be material differences between firms in the proportions of audit partners they deploy at different levels of seniority.

3 The CC's calculation is therefore flawed as the basis for assessing our audit business profitability. The CC should instead refer to the detailed audit business profitability calculations we provided in our submission of 31 July 2012, *Observations on the assessment of audit profitability* (**our Profitability Submission**).

[1] Letter from Ian Giles of Norton Rose to Mark Bethell and Dipen Gadhia, 20 September 2012.

4 If, disregarding the points above, the CC is seeking to establish the return that PwC's "audit partners" receive for their investments in the firm as a whole[2], there remain fundamental problems with its approach. These issues give rise to the misleading return on capital figure provided.

5 The CC's e-mail states that "the return on invested capital takes no account of the retained earnings or intangible assets of the firms." Both of these factors are critical components of the firm's capital. If they were included in the calculation, they would be likely to reduce significantly the calculated return on capital. We do not understand the basis on which the CC states that it is *"not persuaded that this provides the full explanation for the scale of this return,"* as it does not present any evidence for this.

6 In WP1 the CC states that the intangible asset base could be of *"substantial value"* compared with the *"relatively small tangible asset base"* and that the CC would be *"unable to reliably measure"* this (paragraph 58). We agree with these points, but the CC (i) discounts the relevance of intangible assets to the calculation and (ii) fails to capture the tangible asset base which would be necessary to make the calculation robust. Below we demonstrate that, in fact, the scale of returns can be explained plausibly by consideration of the potential value of tangible and intangible assets.

Use of a broader estimate of tangible assets in capital employed

7 The CC's calculation uses only partners' invested capital as capital employed. We pointed out in our Profitability Submission that this was a highly conservative basis for calculating capital employed. Partners' invested capital is not the only source of capital provided by our partners. The firm is also funded by partners continually reinvesting earnings in the business rather than these being distributed. Both are sources of capital. We would not be able to fund the business if we relied solely on partners' invested capital, and partners are at risk for all of their money that is retained in the business. Aside from a small amount of debt, partners are the only source of finance – it is they who fund the operational assets of the business.

8 For the UK firm as a whole, the value of our operational assets (the sum of our property, plant and equipment, net working capital and some cash deployed in the business) was between £✂ and £✂ in FY11.[3] The CC's calculation is performed on a per "audit partner" basis,[4] and using the same approach our capital employed (based on tangible assets) is in the range of £✂ to £✂ per "audit partner" (compared with £✂ per "audit partner" invested capital used in the CC's calculation).

9 Including the higher estimate of capital employed (based on tangible assets) more than halves the return using the CC's calculation from ✂% to **✂%-✂%**.

10 The CC's calculation is performed on a pre-tax basis. This is the normal approach to calculating ROCE when performed on the conventional basis for assessing business profitability, using company profits as the estimate of returns. However, the CC's calculation is based on partner remuneration, and it is highly misleading to use pre-tax figures in this case – our "audit partners" did not take home £✂ each on average as their return on capital in FY11 as the CC's e-mail implies, but just half that amount after tax.[5]

11 Taking tax into account, in addition to the higher tangible asset base, reduces the return based on the CC's approach still further, to **✂%-✂%**.

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2 It is not clear how this is relevant to assessment of competition in the market for provision of audit services.

3 The range reflects alternative treatments of cash – see Annex for details and sources of calculations. Note that the range is less than the total figure for total members' (partners') interests of £722m at 30 June 2011. The reason for this difference is that total members' interests includes an additional number of accounting items such as the pension asset, which we have decided not to include in our definition of operational capital employed. This approach allows us to derive an appropriate figure for the equivalent amount of retained earnings to be included in our asset base.

4 The CC uses the rewards of "Responsible Individuals" as a proxy for the rewards of "audit partners". As we have explained to the CC previously, we do not have "audit partners". "Responsible Individuals" are important in the delivery of audit services, but they also perform other roles, and other partners also participate in audits.

5 Because of income tax allowances and tax band thresholds the average rate of income tax for our partners in FY11 was slightly below 50%. However, the CC's calculation focuses on the average return on capital element of "audit partner" remuneration, which is additional to the "salary" element of around £✂, and hence this was taxed fully at the higher rate of income tax of 50%.

12 If the CC's calculation is performed on a post-tax basis using a full value for the tangible asset base, the CC cannot reasonably conclude (as it does in its e-mail) that the estimated returns of ✂%-✂% are *"relatively high"*, or that intangible assets could not provide *"the full explanation for the scale of this return"*.

The implied size of intangible assets

13 We agree with the CC that it is *"unable to reliably measure"* the value of PwC UK's intangible assets (WP1, paragraph 58). Rather than attempting to value intangible assets, therefore, we simply consider:

(a) What level of partner returns would be expected in a competitive market;

(b) What value of intangible assets would be needed to bring actual PwC "audit partner" returns down to the level in (a); and

(c) Whether or not the implied value for intangible assets in (b) is so high as to be implausible.

14 If the value of intangible assets implied in this illustrative analysis is not implausibly high, then this would contradict the CC's view expressed in its e-mail that it is *"not persuaded that this [i.e. retained earnings or intangible assets] provides the full explanation for the scale of this return"*.

15 In relation to the three steps above:

(a) In taking a view on the level of partner returns that would be earned in a competitive market, we consider on a post-tax basis a range of **8.4%-17.2%** to provide a conservative estimate of competitive returns:

(i) 8.4% is our post-tax cost of equity estimate for 2011 included in our Profitability Submission (Table 12). We noted at paragraph A7.13 of that submission that there were several reasons why a cost of equity calculated using the Capital Asset Pricing Model might be a significant underestimate for our audit business.

(ii) We use 17.2% as a sensitivity. This is based on the uplift identified by Oxera in Figure 6.7 of its report to the European Commission, Ownership rules of audit firms and their consequences for audit market concentration, October 2007. We have excluded the "small premium" element as this does not apply to a large audit firm like PwC. Although we use the Oxera figure as our higher estimate of the cost of equity here, we believe that the true figure could be higher still than this sensitivity implies.

(b) The implied value of the intangible assets that would need to be deployed by PwC UK in order to bring calculated PwC "audit partner" returns down to the competitive level would be in the ranges of **£✂-£✂** for the higher cost of equity, **to £✂-£✂** for the lower cost of equity.[6]

(c) To determine whether these implied values for intangible assets are plausible, we consider the potential value of PwC UK as a firm using conventional valuation techniques. *The Equiteq Global Consulting Mergers & Acquisitions Report 2012*[7] shows that the average enterprise value to turnover multiple for transactions involving professional services firms[8] in 2011 was ✂x.[9] ✂. Given tangible assets of £✂-£✂, this would imply a value for intangible assets of around **£✂**, significantly higher than the implied value calculated above that would be needed to justify the observed level of "audit partner" remuneration.

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6 The range reflects alternative treatments of cash – see Annex for details and sources of calculations.

7 Equiteq Global Consulting Mergers & Acquisitions Report 2012. Available online at http://www.equiteq.co.uk/equiteq/DisplayArticle.asp?ID=15252

8 The report covers transactions involving companies providing business services in the main forms of consulting and advisory, including management, strategy, operations, marketing, engineering, IT services, legal and accounting.

9 Furthermore, the current average revenue multiple for professional services firms listed in the FSTE All-Share index is ✂x.

16 We do not present this as evidence that PwC UK deploys intangible assets with a value of £✂. Rather, the purpose of the calculation is to provide illustrative analysis to determine whether it is realistic to suggest that intangible assets are sufficiently large to provide a plausible explanation for the returns earned by PwC's "audit partners" on their investments in PwC as a firm. As shown above, the required value of intangible assets needed is completely plausible based on the valuations of comparable businesses.

Yours sincerely

Ian Giles

Annex

A. PARTNER REMUNERATION

2011
£k unless otherwise specified

"Audit" partners (FTEs)	A1	✂		Responsible individuals for year to 30 June (excl TS) as provided in response to CC "Other Business Info" request
"Non-Audit" partners (FTEs)	A2	✂		Balance of partners sharing in the UK PwC LLP distributable profit pool as provided in response to "Other Business Info" request
Total (FTEs)	A3=A1+A2	✂		
Audit partner remuneration per partner	A4	✂		Average total remuneration per Responsible Individual partner as provided in response to "Other Business Info" request
"Partner salary" benchmark	A5	✂		Average benchmarked audit "partner salary" per profitability methodology putback dated 14-Sep-12
Audit partner remuneration per partner in excess of "partner salary" (pre-tax)	A6=A4+A5	✂		
Tax rate on audit partner remuneration	A7		50%	HMRC income tax "Additional rate". See http://www.hmrc.gov.uk/rates/it.htm
Audit partner remuneration per partner in excess of "partner salary" (post-tax)	A8=A6xA7	✂		
Total partner remuneration in excess of "partner salary" (post-tax) (£m)	A9=A3xA8	✂		We note that, as per our response to the CC's "Other Business Info" request, audit partner remuneration per partner ([✂]) is greater than non-audit partner remuneration per partner ([✂]). However, by grossing up the higher figure to the firm level, we are being conservative and are actually over-estimating total remuneration in excess of "partner salaries" at the firm level.

B. BALANCE SHEET DATA

As at 30 June 2011
£m unless otherwise specified
For PwC UK excluding Middle East & Channel Islands

Current assets			
Trade and other receivables	B1	✂	This data is sourced from PwC management information. Note that balances do not match published accounts due to exclusion of the Middle East and Channel Islands.
Cash and cash equivalents	B2	✂	
Total current assets	B3=B1+B2	✂	
Non-current assets			
Property, plant and equipment	B4	✂	
Intangible assets	B5	✂	
Goodwill	B6	✂	
Investments	B7	✂	
Deferred tax asset	B8	✂	
Retirement benefit asset	B9	✂	
Total non-current assets	B10=SUM(B4:B9)	✂	
Total assets	B11=B3+B10	✂	
Trade and other payables	B12	✂	

C. TANGIBLE ASSETS ESTIMATES

As at 30 June 2011
£m unless otherwise specified
For PwC UK excluding Middle East & Channel Islands

Trade and other receivables	B1	✂
Trade and other payables	B12	✂
Net working capital	C1=B1+B12	✂

Low tangible assets estimate

Property, plant and equipment	B4	✂
Net working capital	C1	✂
Tangible assets employed	C2=B4+C1	✂
Tangible assets employed per partner (£k)	C3=C2/A3	✂
Audit partner remuneration per partner in excess of "partner salary" : Tangible assets		
Pre-tax	C4=A6/C3	✂
Post-tax	C5=A8/C3	✂

High tangible assets estimate

Cash and cash equivalents	B2	✂
Minimum cash balance in year compared to Jun-11 balance	C6	✂
Adjusted cash and cash equivalents	C7=B2xC6	✂
Property, plant and equipment	B4	✂
Net working capital	C1	✂
Adjusted cash and cash equivalents	C7	✂
Tangible assets employed	C8=B4+C1+C7	✂
Tangible assets employed per partner (£k)	C9=C8/A3	✂
Audit partner remuneration per partner in excess of "partner salary" : Tangible assets		
Pre-tax	C10=A6/C9	✂
Post-tax	C11=A8/C9	✂

This ratio is based on analysis of monthly cash balances for FY11 using PwC management information.

Note on treatment of cash: PwC has high cash balances throughout the year, but the extent to which these should be included as operational assets of the business is not clear. There are multiple uses of cash: (i) some cash is retained in the business because partner monthly drawings are necessarily kept low to provide protection against adverse business performance and (ii) cash is also needed to meet known future obligations (such as tax payments). We have taken a conservative approach to cash, including only the minimum balance held (in the **high tangible capital estimate**) or none at all (the **low tangible capital estimate**).

D. INTANGIBLE ASSET ANALYSIS

2011
£m unless otherwise specified
For PwC UK excluding Middle East & Channel Islands

Cost of equity (post-tax)

Low cost of equity estimate	D1	8.4%
Uplift to low estimate	D2	8.8%
High cost of equity estimate	D3=D1+D2	**17.2%**

2011 post-tax cost of equity as per PwC Profitability Submission dated 31 July 2012
Based on the uplift identified by Oxera in Figure 6.7 of its report to the European Commission "*Ownership rules of audit firms and their consequences for audit market concentration*", October 2007. We have excluded the "small premium" element as this does not apply to a large audit firm like PwC

Estimated PwC enterprise value

PwC total revenue	D4	✂
Assumed enterprise value : revenue multiple	D5	✂
Estimated PwC enterprise value	D6=D4+D5	✂

Based on conservative view of potentially appropriate multiple

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D. INTANGIBLE ASSET ANALYSIS (continued)

		Low cost of equity	High cost of equity	
Cost of equity (post-tax)	D7: D1, D3	8.4%	17.2%	
Low tangible assets estimate				
Tangible assets	C2	[redacted]	[redacted]	
Fair return on tangible assets	D8=C2xD7	[redacted]	[redacted]	
Total partner remuneration in excess of "partner salary" (post-tax)	A9	[redacted]	[redacted]	
Fair return on tangible assets	D9=-D8	[redacted]	[redacted]	Reflects capital charge on tangible assets
Total partner remuneration in excess of "partner salary" and fair return on tangible assets (post-tax)	D10=A9+D9	[redacted]	[redacted]	
Implied intangible assets to explain partner remuneration	D11=D10/D7	[redacted]	[redacted]	Reflects intangible assets required to result in zero economic profit
Estimated PwC enterprise value	D6	[redacted]	[redacted]	
Tangible assets employed	D12=-C2	[redacted]	[redacted]	
Enterprise value in excess of tangible assets	D13=D6+D12	[redacted]	[redacted]	
High tangible assets estimate				
Tangible assets	C8	[redacted]	[redacted]	
Fair return on tangible assets	D15=C8xD7	[redacted]	[redacted]	
Total partner remuneration in excess of "partner salary" (post-tax)	A9	[redacted]	[redacted]	
Fair return on tangible assets	D16=-D15	[redacted]	[redacted]	Reflects capital charge on tangible assets
Total partner remuneration in excess of "partner salary" and fair return on tangible assets (post-tax)	D17=A9+D16	[redacted]	[redacted]	
Implied intangible assets to explain partner remuneration	D18=D17/D7	[redacted]	[redacted]	Reflects intangible assets required to result in zero economic profit
Estimated PwC enterprise value	D6	[redacted]	[redacted]	
Tangible assets employed	D19=-C8	[redacted]	[redacted]	
Enterprise value in excess of tangible assets	D20=D6+D19	[redacted]	[redacted]	