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To

Committee Secretary
Parliamentary Joint Committee on Corporations and Financial Services
PO Box 6100
Parliament House
Canberra ACT 2600

Submission: Competition in the audit market (3g)

This submission has been prepared by Dr Sarowar Hossain and Professor Gary S. Monroe, who are both accounting academics employed at the University of New South Wales. Dr Hossain and Professor Monroe specialise in auditing research, particularly the economics of auditing, the pricing of audit and non-audit services, and the determinants of audit quality.

It is our pleasure to take the opportunity to contribute to the inquiry into recent allegation of and responses to misconduct in the Australian operations of the major accounting, audit, and consulting firms. Regulators around the world have raised concerns regarding the consequences of market concentration to whether a corresponding reduction in competition may have adverse impacts on audit pricing and quality. For example, in the UK (Brydon Review 2019¹; CMA Market Study 2019²) and Australia (Parliamentary Joint Committee on Corporations and financial Services Inquiry 2019³). Specifically, there are concerns regarding the market dominance, concentration, fear of merging option of the largest Big 4 audit firms in the provision of audit services.

In this submission, we provide evidence on *audit market competition in the Australian market for audit services (item 3g)* using recent data from companies listed on the Australian Securities Exchange (ASX) during 2019-2022.⁴ To examine audit market competition and concentration, we split audit firms into four categories, (i) the Big 4 audit firms (Deloitte, EY, KPMG, and PwC), (ii) Large Non-Big 4 audit firms (Grant Thornton and BDO), (iii) Medium Non-Big 4 audit firms (the next 17 largest audit firms required to prepare transparency reports

¹ Brydon Review. 2019. *Independent review into the quality and effectiveness of audit*. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/778957/brydon-review-terms-of-reference.pdf

² Competition and Markets Authority (CMA). 2019. *Statutory audit services market study*. Available at: https://assets.publishing.service.gov.uk/media/5d03667d40f0b609ad3158c3/audit_final_report_02.pdf

³ Parliamentary Joint Committee on Corporations and Financial Services Inquiry 2019.

⁴ We excluded companies with overseas headquarters, observations where the office of the auditor conducting the audit was located outside of Australia, and clients' that reported their financial statements in a currency other than AUD. The final sample includes around 90.74% to 93.80% of ASX listed audited clients (2,010 in 2019; 2,032 in 2020; 2,127 in 2021; and 2,132 in 2022).

with more than 10 public interest entity audits per year), and (iv) Small Non-Big 4 audit firms, to allow for a more nuanced view of the structure of the audit market in Australia. The ACCC's Merger Guidelines (ACCC 2008)⁵ provide guidance on three concentration metrics that would be utilised to consider any future mergers or consolidations in the audit industry. These are market share, concentration ratios and the Herfindahl-Hirschman Index (HHI). We measure market share based on both the number of clients and audit fees, and calculate the key competitive metrics identified by (i) concentration ratios, and (ii) Herfindahl-Hirschman indices for audits of Australian listed companies during 2019-2022. Accordingly, this research report provides the most complete, up-to-date and relevant analysis available for insights into the current structure and competition in the Australian audit market.

Auditor Market Share

To measure audit market concentration, we measure the concentration ratio (CR) as the percentage of total activity in the Australian audit market that is accounted for by the n most active audit firms.

Big 4 audit firms dominate the market share worldwide where they audited more than 44.7% (82% of audit fees) of public companies in the USA in 2022, whereas 54.9% (92% of audit fees) of all main market in UK during 2021. In Australia, the market share for the Big 4 and Small audit firms decreased and the large and medium non-Big 4 audit firms gained those clients during 2019-2022. The market share, percentage of listed clients, and audit fees of Big 4 audit firms continued to decline since 2019, which was 42.49% of listed companies (86.15% of audit fees) in 2019 and reached 37.56% of listed companies (83.07% of audit fees) in 2022. During that same period of time, the market share for the large non-Big 4 audit firms increased slightly from 18.96% of listed companies (5.46% of audit fees) in 2019 to 19.49% of listed companies (6.96% of audit fees) in 2022. The market share for the medium non-Big 4 firms increased from 31.29% of listed companies (7.06% of audit fees) in 2019 to 34.39% of listed companies (8.68% of audit fees) in 2022.

In Australia, the Big 4 audit firms gained more clients in the Top 500 listed companies and lost clients from the medium and small client groups. The largest and most complex clients are audited by the Big 4 audit firms, with just over 95.50% (94.50% to 96.50%) of the largest 200 companies by assets in each year audited by the Big 4 audit firms and they earned 98.85% to 99.30% of audit fees. The Big 4 audit firms audited 76.00% to 79.00% of the next 300 largest

⁵ Australian Competition and Consumer Commission (ACCC). 2008. *Merger Guidelines*. Commonwealth Government: Canberra, ACT. Available at: www.accc.gov.au.

clients and earned 82.77% to 85.66% of audit fees. The number of clients for the Big 4 audit firms decreased from 37.33% to 31.36% of the medium client segment and their market share of audit fees decreased from 46.58% to 39.82%. Big 4 audit firms earned around ten percent (9.83% to 13.65%) of audit fees in the smaller client segment.

With respect to the market share for each of the Big 4 audit firms, EY had the largest market share (ranging from 11.42% to 12.01%) followed by KPMG (10.79% to 11.27%) and their market shares were consistent over our study period. However, the market share of DTT (9.50% to 7.46%) and PWC (10.20% to 7.60%) decreased over our study period. The market share for BDO (12.09% to 12.90%) and GT (6.50% to 6.87%) remained stable over the period.

Among the Big 4 audit firms, the average audit fees for each of the Big 4 and Large non-Big 4 increased during our sample period. PwC charged the highest audit fee per client, and it increased during our sample period (\$843,939 to \$1,268,643), followed by EY (\$663,610 to 798,352); KPMG (\$570,337 to 619,809); and DTT (332,615 to 494,002). The average audit fee charged by Grant Thornton (\$89,368 to \$123,232) is higher than BDO (\$84,749 to 118,927) and increased during our sample period for both auditors.

Concentration Ratios (CR-N) and Herfindahl-Hirschman Indices (HHI)

Regulators often focus on metrics, rather than observing market share directly, such as concentration ratios or Herfindahl-Hirschman Indices (HHI) which can be benchmarked to gain insights into the competitiveness (or lack of competitiveness) within a particular market. In our case, if regulators are considering whether to approve a merger between two large audit firms, they should examine how such a merger will change the audit market competition. The ACCC Merger Guidelines (2008) state that the HHI will be the primary indicator of the likelihood that the merger will raise competition concerns. A market with an HHI of less than 1,500 is considered a competitive marketplace, an HHI of 1,500 to 2,500 is moderately concentrated, and an HHI of 2,500 or greater is highly concentrated.

In terms of audit market concentration based on concentration ratios, Big 4 firms audited around 40% of the companies in our sample and earned between 86.15% in 2019 to 83.07% in 2022 of audit fees. When we added BDO and Grant Thornton to create a group of the six largest audit firms (Big 6), the Big 6 audit firms audited around 60% of companies and earned between 91.61% in 2019 to 90.03% of audit fees in 2022. The largest 23 audit firms audited around 93% of listed companies and earned between 98.67% to 98.87% of audit fees.

In terms of market concentration based on HHI index, overall, the ASX market is moderately concentrated (HHI decreased from 2072 in 2019 to 1928 in 2022), however, based

on the number of clients, the audit market is less concentrated and the HHI index declined during our sample period (HHI decreased from 763 in 2019 to 738 in 2022). Alternatively, for the very large clients (Top 200 by Assets), the audit market is highly concentrated with Big 4 audit firms dominating the audit market in terms of audit fees (99.04% to 99.30% of audit fees and HHI between 2848 to 2976). For the next 300 companies, Big 4 audit firms earned more than 83% of audit fees (85.66% to 82.77%) but market share is moderately concentrated and decreasing during our sample period (HHI 1914 in 2019 to 1774 in 2022). The market share of Big 4 audit firms for medium size clients, based on audit fees, decreased during our sample period (46.58% to 40.83%) and the market is not concentrated as HHI are between 561 to 404.

When we use concentration ratios and HHI to measure the market share concentration of Big 4 audit firms based on the number of clients, the audit market for the top 200 listed companies is moderately concentrated (94.50% to 96.50% of audit clients and HHI between 2422 to 2438). With respect to the next large 300 companies, the market share of Big 4 audit firms decreased from 78.67% to 76.00% based on the number of clients, and their market share is competitive and decreasing (HHI 1569 in 2019 to 1463 in 2022) during our sample period.

While regulators have expressed their concerns regarding the market dominance of the largest audit firms, unlike other jurisdictions, where the Big 4 audit firms audit more than 45% (USA) of public companies or 55% (UK) of all main markets, in Australia the market share of Big 4 audit firms is now less than 38%. Our analyses show that the market is highly segmented with differing levels of concentration across the client segments investigated. The largest and most complex clients are mainly audited by the Big 4 audit firms, while smaller clients are audited by a range of other auditors. However, in relation to concentration, we find that the very large and large company audit market segments are highly concentrated and dominated by Big 4 audit firms.

This report provides important input into any decision-making process to limit or regulate the behavior of audit market participants by providing a snapshot of the Australian listed company audit market in recent years. Prior research⁶ documents a significant increase of audit fee premiums for Big 4 auditors compared to before the merger of some of the largest audit firms, suggesting that the decrease in the number of the largest audit firms from the Big 6 to the Big 4 has likely reduced the level of competition in the audit market for public companies as reflected by increases in audit fee premiums, but that this impact was not consistent across all client segments. This does indicate that the impact of mergers on market

⁶ Carson, E., Simnett, R., Soo, B. S., and Wright, A. M. 2012. Changes in audit market competition and the Big N premium. *Auditing: A Journal of Practice & Theory*, 31 (3): 47-73.

structure and on competition may not be immediate and that any analysis of future mergers should consider a range of client segments across varying time periods as well as considering the use of carefully targeted research designs and methods.

Yours faithfully

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