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Analyzing the financial position of the Greek audit firms

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Abstract

Research Question: What was the financial position of the twenty largest Greek audit firms during the period 2015-2023?

Motivation: There is just one study that examines the financial position of the Greek audit companies. However, this study does not assess the factors that can affect the financial performance of the audit firms operating in Greece, nor does it discriminate between Big 6 and non-Big 6 firms. Given the significance of the Greek market in the region, a study on the local audit companies is highly appreciated. This is the gap in the literature that the current study aims to fill.

Idea: Along with analyzing the financial position of the Greek audit companies, also focusing on the impact of the recent Greek sovereign crisis and the possible of Covid-19 on revenue and financial performance, we explore the factors that can affect financial performance, including audit firms' status, size, age, leverage, liquidity, and efficiency.

Data: We gather the financial statements of the twenty largest Greek audit firms during the period 2015-2023.

Tools: First, we examine the main financial figures of the Greek auditing firms. Then, we focus on the structure of their balance sheet. Next, we calculate key financial ratios. Last, we attempt to identify the factors that may affect the financial performance of audit firms through econometric analysis, as well as how these factors affect performance.

Findings: Our findings indicate that the Greek audit firms have sound liquidity but are largely financed by foreign capital rather than equity. At the same time, their ability to exploit their assets to make revenue is very strong. By comparing the Big 6 to other companies, it has been found that the smaller firms are in a better relative financial position than the Big 6. Moreover, it is shown that sales, profitability, and financial performance have been significantly larger after the end of the Greek financial crisis in 2019 than they were during the crisis (i.e., 2015-2019). On the other hand, the Covid-19 health crisis did not have any impact on financial performance. Finally, a significantly negative correlation is found between companies' age and financial performance. This is also the case about efficiency.

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Debt-to-equity and cash ratios are positively related to financial performance. The relationship between the acid-test ratio and performance is significant, too, although not unequivocal.
Contribution: This is the first study to examine the factors that may affect the financial performance of the Greek audit firms, as well as the possible impact on financial performance of the Covid-19 health crisis. Given the significant role of Greece as a peripheral power, our results could be reflected in other countries with similar economic characteristics and comparable audit markets. From a practical point of view, the current study provides useful insights into some of the factors that may affect the financial performance of audit firms so that the latter elaborate on these factors to further enhance their performance.

Keywords: Audit Firms, Financial Performance, Liquidity, Leverage, Profitability, Efficiency

JEL Classification Codes: M42

1. Introduction

In the complex modern financial world, the role of auditing firms is very important for fostering integrity and transparency, ensuring corporate accountability, and instilling confidence in a wide range of stakeholders, including shareholders, investors, creditors, clients, suppliers, employees, regulators, and public authorities, that their interests will be protected by efficient corporate governance practices and fair financial reporting.

Regarding fair financial reporting, the audit of a firm's financial statements seeks to verify that these statements are free from material misstatement, given the sampling nature of an audit, as well as the assumption that an audit cannot provide absolute assurance. In this respect, Schauer (2002) supports the idea that a highly qualitative audit can increase the probability that the financial statements of a company reflect the financial position and the operating results of the entity more accurately. In any case, and despite the inability of an audit to provide absolute assurance about the true and fairness of financial statements, investors, creditors, and other stakeholders rely on audited financial statements and the opinion expressed in the auditor's report attached to financial statements to make informed decisions about a firm. Consequently, maintaining the trust of stakeholders in the role of auditors is essential for the smooth functioning of capital markets.

At the same time, by examining the financial records of a company, the function of its internal control system, and its adherence to the generally accepted accounting principles and the required regulation standards, auditors can detect weaknesses and lacks and make relevant suggestions for improvement. Such suggestions can be quite contributive to corporations reducing their costs, strengthening the utilization of their

assets, enhancing their overall financial management and maximizing their profitability to the benefit of shareholders. Fraudulent practices can be prevented or detected by the auditors too.

Several researchers, including Krishnan (2003), Bulut *et al.* (2009), Farouk and Hassan (2014), Afza and Nazir (2014), Ching *et al.* (2015), Santos *et al.* (2015), Hua *et al*. (2016), Egbunike and Abiahu (2017), Rahman *et al*. (2019), Khan *et al*. (2021), Hyarat *et al*. (2023), Rompotis and Balios (2023), Aly *et al*. (2023), and Valencia (2025), by focusing on various developed and developing countries and regions, accentuate a positive correlation between the quality of audit services and the financial performance of the audit clients. This is particularly true for the so-called "Big 4" firms (including PwC, Deloitte, EY and KPMG), which can exploit the common perception about their qualitative services and charge their clients with higher fees. Among others, studies by Che *et al*. (2020) and Hrazdil *et al*. (2020) verify the existence of a Big 4 fee premium.

For an audit company to be able to play its vital role, it needs to have the necessary resources (personnel, technical expertise and infrastructure) and the required financial soundness. The financial soundness or financial position of audit companies is the subject of the current paper. More specifically, we analyze the financial position of the Greek audit firms during the nine-year period 2015-2023.

Audit companies in Greece are private entities and several of them operate as individual local entities within global networks. The audit sector is overseen by the Hellenic Accounting and Auditing Standards Oversight Board (HAASOB), which serves as the regulatory body for the audit profession in Greece. Currently, 63 audit firms are active in Greece.

Our sample includes the twenty largest companies with continuous presence on the Greek audit market throughout the period under review. In our study, we examine the main financial figures of the Greek auditing firms. We also focus on the structure of their balance sheet. Next, we calculate key financial ratios. Last, through econometric analysis, we attempt to identify the factors that may affect the financial performance of audit firms, as well as how these factors affect performance.

The empirical results show that the Greek audit firms maintain high liquidity, which adequately covers their short-term obligations. Also, the firms examined are largely financed by foreign capital and to a lesser extent by equity capital. In addition, the ability of audit firms to leverage their assets to make sales proves to be important.

From the comparative analysis between the Big 6 and the other smaller firms in our sample,[2] it emerges that the smaller companies have better relative figures than the

[2] The 6 big firms include Deloitte, PWC, EY, Sol/Crowe, Grant Thornton and KPMG.

Big 6. In particular, they have a higher ratio of cash reserves to total assets and better liquidity ratios compared to large companies. They also have better capital structure, i.e., a higher ratio of equity to assets than the Big 6, but lower debt to equity ratios. Furthermore, the smaller companies have significantly better efficiency and profitability ratios than the large ones. On the other hand, the Big 6 outperform smaller firms in their ability to leverage their assets to generate sales.

By assessing the impact of the Greek financial crisis on the financial position of the Greek audit firms, it is shown that after the end of crisis in 2019, sales, profitability and financial performance are significantly larger than they were during the crisis period (i.e., in our study 2015-2019). On the other hand, the pandemic of Covid-19 did not have any significant impact on the business activity and financial performance of the audit companies examined.

On the factors that affect financial performance, econometric analysis reveals a negative correlation of firms' age and efficiency ratio with performance. On the other hand, the debt-to-equity ratio and the cash ratio are positively related to performance. Finally, the effect of the acid-test ratio on financial performance is significant, although not unequivocal.

We deem our study to be a significant contribution to literature. To the best of our knowledge, the study of Belesis (2024) is the only one that focuses on the financial position of the Greek audit companies by using data over the period 2012-2022. Similar to our findings, Belesis (2024) reports that the Greek audit firms have been quite profitable during the period under study. In addition, they have strong liquidity and tend to finance their operation through liabilities rather than equity. However, Belesis (2024) does not explore the factors that may affect the financial performance of the Greek audit firms. This is the main difference between our study and that of Belesis (2024). In addition, the difference in financial performance between Big 6 and non-Big 6 firms is not examined statistically by Belesis (2024), as is done in our study. Finally, Belesis (2024) does not make any reference to the possible impact of the Greek financial crisis and Covid-19 health crisis on the financial position of the Greek audit firms.

To our view, the Greek audit market is a quite interesting case to study because of the severe economic crisis in Greece over the period 2008-2019, which, along with the severe economic repercussions for the Greek people, corporations and the entire economy, gave rise to a general mistrust to officials, institutions, and companies, without excepting the audit professionals. Furthermore, the unique structure of the audit market in Greece, where the international dominance of the known Big 4 audit firms, namely Deloitte, EY (Ernst & Young), PwC (PricewaterhouseCoopers), and KPMG, is threatened by Grant Thornton and SOL/Crowe, enhances the originality of the current study's results. Given the significant role of Greece as a peripheral

power, our results could be reflected into other countries with similar economic characteristics and comparable audit markets. From a practical point of view, the current study provides useful insights into some of the factors that may affect the financial performance of audit firms so that the latter elaborate on these factors to further enhance their performance.

The rest of the paper is structured as follows: next section discusses the main findings of significant studies on the financial position and performance of the audit companies internationally. Section three defines the research hypotheses to be tested in our study. Next section presents the Greek audit firms that have been included in the sample of the study and their accounting outlook, as well as the research methodology. Section 5 provides empirical results. Conclusions are offered in section 6 along with some suggestions for future research.

2. Literature review

Various aspects of the financial soundness and performance of audit and accountancy companies are examined in literature. A key of these aspects concerns the fees charged by the audit firms for the services they provide given that usually there are no standard rates of charges for professional audit work and, thus, it is up to each practitioner to define their own scale of charges. This matter has been addressed by numerous researchers with data from several countries and periods.

Factors such as the size and profitability of the audited firms (auditees), size of the auditors themselves, the perceived quality and reputation, the industry expertise, the market power, the litigation risk, the background of audit partners, the complexity and risk of an audit, which can be assessed by the number of subsidiaries to be audited, the auditor's rotation, the reliance on internal audit work, the timing of an audit (i.e., whether an audit is being conducted during the auditor's "busy season" or not), and the proportion of non-audit fees, have been found to be determinative of the level of external audit fees by several seminal studies conducted during the 80's with data from the USA, UK, Australia and New Zealand. Such studies include those by Simunic (1980), Taylor and Baker (1981), Francis (1984), Whittred and Zimmer (1984), Fogg (1985), Simon (1985), Firth (1985), Francis and Stokes (1986), Palmrose (1986), Francis and Simon (1987), and Simon and Francis (1988). Chan *et al*. (1993) add to the explanatory factors of fees the extent of ownership control of the auditee, audit location, and diversification. McMeeking (2007) reports that the competition among accountancy firms affects the level of charges to their clients.

Other studies that verify the validity of the factors above as determinative of the audit and accountancy firms' revenue and financial performance include those by Low *et al*. (1990), Davis *et al*. (1993), Brinn *et al*. (1994), Zhang and Myrteza (1996), Hogan and Jeter (1999), Joshi and Al-Bastaki (2000), Firth (2002), Rick *et al*. (2005),

Mellett *et al*. (2007), Pong *et al*. (2007), Thinggaard and Kiertzner (2008), Mohammed and Barwari (2018), Saputra and Yusuf (2019), and Hazami-Ammar (2019).

With respect to audit fees, Craswell *et al*. (1995), Moizer (1997), and Defond *et al*. (2000) report that the auditor's industry specialization and brand name enable them to charge increased audit fees. Similar results are reported by Kharuddin and Basioudis (2018) and Kharuddin *et al*. (2021). Lee and Ha (2021) report that in cases of corporate fraud revelation, average audit fees significantly increase due to an increase in the audit hours required for the completion of an audit, rather than in audit premiums. They also show that either new or continuing auditors increase audit hours for fraud firms, but only new auditors charge higher audit fees for the increased effort. Ensaf *et al*. (2025) report that an increase in prior years' audit adjustments signals higher audit risk, which leads to higher audit fees. Kacer *et al*. (2018) show that Big 4 real audit fees are quite persistent, being partly dependent on their previous realizations. Xue and O'Sullivan (2023) accentuate a negative relationship of audit fees with client liquidity and the length of listing for companies listed in the Alternative Investment Market in the UK. hrazdil *et al*. (2022) highlight the importance of political, economic, social, technological, legal, and environmental/ecological factors for the determination of of the fees collected by the audit companies.

Several studies examine the ability of the Big 4 audit companies to collect audit fee premiums based on their fame and industry specialization. Che *et al*. (2020) documents a big 4 effect for financial statement audits driven by material audit quality that can be explained by Big 4 audit firms' greater capacities for recruitment, enhanced learning opportunities and stronger incentives and monitoring. Hrazdil *et al*. (2020) also accentuate a premium in the audit fees charged by the Big 4 audit firms in the United States. However, according to Hrazdil *et al*. (2020), the effects of industry specialization on audit fees become statistically insignificant after controlling for individual pricing differences within the Big 4. Craswell *et al*. (1995), Moizer (1997), and Defond *et al*. (2000) report that the auditor's industry specialization and brand name enable them to charge increased audit fees. Similar results are reported by Kharuddin and Basioudis (2018) and Kharuddin *et al*. (2021).

Other relevant studies concerning the fee premium of the Big 4 are those by Basioudis and Francis (2007), Campa (2013), Kharuddin and Basioudis (2018), and Kharuddin *et al*. (2021). In the same context, Fleischer *et al*. (2017) examine whether the Big 4 fee premium is influenced by a firm's decision to change its auditor. The results show that the Big 4 premium only exists when firms retain their auditor. However, upon auditor changes, Big 4 auditors are willing to give up their premium or even accept lower fees than non-Big 4 auditors.

Collins-Dodd *et al*. (2004) assess the role of gender in the financial performance of small public accounting practices in British Columbia, which are characterized by sole proprietorship, that is, they belong to just one owner. The results show that gender is not a significant direct explanation of the differences in financial performance among small accounting practices. Nevertheless, women with a stronger motivation to establish a public practice to balance work and family experience more positive financial outcomes, while for men such motivation reduces financial performance. Garcia-Blandon *et al*. (2023) examine whether the involvement of female chief financial officers on behalf of auditees in the audit process and audit pricing process affect the level of fees charged by their auditors. The results show that firms with female chief financial officers and more female directors on the audit committee pay significantly lower audit fees than other firms.

Chen *et al*. (2008) investigate the correlation between continuing professional education and financial performance of public accounting firms in Taiwan over 1992-1995, finding that the professional training of assistants in big firms is positively associated with performance. In firms of all sizes the internal training of assistants is positively related to performance. Finally, external professional training of partners and assistants in big and small firms, respectively, positively relates to performance.

Chen and Cheng (2008) focus on life cycle stage of audit firms to examine the relationship of their size and quality with their financial performance in Taiwan over the period 1998-2004. Life cycle has three stages: the youth, the adult and the old. The results show that during the youth stage, size is the more influential factor on financial performance. In the adult stage, performance can improve only by increasing the size of the audit firm. Audit quality is more significant during the old stage. In the same context, Chen *et al*. (2013) examine the relationship of audit quality and auditor's size with the financial performance of audit firms in Taiwan over the period 1992-2006. They find a positive association between the size of audit firms and the quality of the audit services provided, as well as a positive correlation between audit quality and the financial performance of the audit companies. The latter is more evident in firms with national coverage than firms with local or regional focus.

Gordieieva and Tsaturian (2023) assess the impact of changes in world economy on the revenue of the Big 4 audit firms, also trying to identify the key endogenous determinants of these companies' growth. The authors show that the revenue of Big 4 depends significantly on the state of global economy and is highly correlated to the global gross domestic product (GDP). However, during recessions in global economic activity, the revenue of Big 4 does not decrease proportionally, being

proved quite sustainable. The strong viability of the Big 4's activities can be explained by their ability to target the largest national and international audit clients, the broad industry diversification and regional coverage, the timely update of the services provided, the effective marketing strategies, the exploitation of innovative technologies, and the hire of competent management and personnel.

Finally, Gelashvili *et al*. (2024) evaluate whether the audit and accounting firms are financially viable, also assessing the impact of Covid-19 on their financial performance. In this study, the profitability, liquidity and solvency of 12,469 European companies are analyzed by considering the size and age of the firms examined. Using the Z-score of Altman for the probability of a company going bankrupt, the empirical results show that in general audit and accounting practices are highly important to the European economy, but, depending on their characteristics, there are firms that may be prone to the risk of bankruptcy.

Apart from the research on the financial performance of the accounting and audit companies themselves, several studies examine how the audit companies can affect the financial performance and value of their clients. Nguyen and Nguyen (2024) assess the impact of governance capacity and audit quality on the financial performance of companies listed on the Stock Exchange of Vietnam over the period 2012 to 2021 finding, among others, that the enhancement of audit quality can improve corporate performance. Similar inferences are drawn by the studies of Wijaya (2020), Al-Ahdal and Hashim (2022), Dakhli (2022), Khader (2023), Rompotis and Balios (2023), Aly *et al*. (2023), and Valencia (2025).

Santos-Jaen *et al*. (2025) investigate the impact of audit fees and auditor tenure on company valuation, focusing on large U.S. audit firms included in the S&P 500 Index over the period 2012 to 2021. The empirical analysis shows that auditor tenure does not have a statistically significant impact on corporate value. The opposite is the case for audit fees, that is, lower audit fees are positively perceived by the market as an indicator of efficient cost management.

Kamarudin *et al*. (2021) report that a longer auditor tenure is associated with higher accounting quality, thus enhancing investor protection. Increased protection is perceived in a positive way by investors and can be reflected into the valuations of the auditees. According to Bratten *et al*. (2019) the advanced familiarity gained by a long auditor tenure allows auditors to more effectively identify strengths and areas of potential risk for the clients, improving audit quality and, thus, company valuation. However, as noted by Shubita (2021), excessive familiarity may make auditors less critical in their assessments, lowering audit quality, and, consequently, eroding investor confidence and possibly corporate valuation.

3. Hypotheses development

From the review of the literature, it derives that, except for Belesis' study that was published in (2024), a comprehensive study to focus on the financial position of the Greek audit firms and the factors that can affect their financial performance is missing. The study of Belesis (2024) itself does not search for the determinative factors of the Greek audit firms' financial performance, neither discriminates between Big 6 and non-Big 6 firms. This is the gap in the literature the current study aims to fill.

Based on the findings of the relevant studies in literature (e.g., Chen *et al*., 2013), one of the key variables that can make an impact on the financial performance of the Greek audit firms is their size, that is, the magnitude of their assets. Size is positively related to the quality of the services provided, and audit quality itself is positively related to the financial performance of audit firms. According to several researchers, (e.g., Bulut *et al*., 2009), the reputation or brand name of the audit practitioners is another factor that can affect financial performance. Quite often, a prestigious brand name depends on whether the audit firm belongs to the Big 4 or (in the Greek case) the Big 6 companies or not. The accumulated experience of the audit companies is crucial too. Usually, experience is related to the age of audit firms. In this respect, Chen and Cheng (2008) report that audit quality is more important during the older stage on an audit company. Finally, the financial soundness and viability of an audit firm can affect its financial performance (see Gelashvili *et al*., 2024). Financial soundness and viability concern the liquidity, leverage and efficiency of audit firms.

As already stated, the main research objective of the current study is to identify factors that can be determinative of the Greek audit firms' financial performance. In our analysis, the status of an audit firm (i.e., Big 6 vs non-Big 6), along with their size, age, debt-to-equity ratio, acid-test ratio, cash ratio, and efficiency ratio are considered.

The first hypothesis to be examined concerns the status of audit firms and is described as follows:

***H.1$_0$**: Audit firms' status (i.e., Big 6 or non-Big 6) affects their financial performance in a positive way.*
***H.1$_1$**: Audit firms' status (i.e., Big 6 or non-Big 6) does not affect their financial performance in a positive way.*

The second hypothesis regards the size of audit firms. This hypothesis is stated in the following way:

***H.2$_0$**: Audit firms' size affects their financial performance in a positive way.*
***H.2$_1$**: Audit firms' size does not affect their financial performance in a positive way.*

With respect to the relationship between age and financial performance, the hypothesis that will be examined is as follows:

***H.3$_0$**: Audit firms' age affects their financial performance in a positive way.*
***H.3$_1$**: Audit firms' size does not affect their financial performance in a positive way.*
Regarding the impact of leverage on financial performance, the hypothesis that will be tested is the following:

***H.4$_0$**: Audit firms' leverage affects their financial performance in a negative way.*
***H.4$_1$**: Audit firms' leverage does not affect their financial performance in a negative way.*

Furthermore, when it comes to the impact of liquidity on financial performance, the hypothesis that will be examined is as follows:

***H.5$_0$**: Audit firms' liquidity affects their financial performance in a positive way.*
***H.5$_1$**: Audit firms' liquidity does not affect their financial performance in a positive way.*

Finally, on the question about the relationship between efficiency and financial performance, the hypothesis that will be tested are the following:

***H.6$_0$**: Audit firms' efficiency affects their financial performance in a positive way.*
***H.6$_1$**: Audit firms' efficiency does not affect their financial performance in a positive way.*

4. Methodology and methods

4.1 Sample

Our sample includes the twenty largest firms that had a continuous presence in the Greek audit market throughout the period under review, which spans from 2015 to 2023. The size of the companies to be included in our sample has been determined based on their turnover, according to their latest published financial statements for the year 2023. On the question of whether our sample is sufficiently representative of the entire audit market in Greece, it should be noted that the total turnover of the firms selected for 2023 amounted to €252 million, covering about 91% of the total turnover of the 63 audit companies that were active in 2023. Based on this percentage, we deem that our sample is quite representative of the Greek audit sector.

The sample of the firms examined is presented in Table 1. A distinction is made between the top 6 (Big 6) and the remaining companies. The Big 6 firms include

Deloitte, PWC, EY, SOL/Crowe, Grant Thornton and KPMG.[3] The table shows for each company the year of incorporation, age as of the 31st of December 2023, the reporting period of its financial statements, and the number of employees reported in the more recently published financial statements.

The average age of the Big 6 firms is 30 years, while the remaining companies are much younger, with an average age of 17 years. The average age of the entire sample is 21 years. In terms of staff, the Big 6 and the smaller companies employ an average of 441 and 37 employees, respectively.

Table 1. The Sample

Audit Firm	Established	Age	Year End	Personnel
Big 6 Group				
Deloitte	1993	30	30.6	487
PWC	1994	29	30.6	484
EY	1990	33	30.6	502
SOL/Crowe	1993	30	31.12	549
Grant Thornton	1994	29	30.6	359
KPMG	1993	30	30.6	267
Mean		**30**		**441**
Non-Big 6 Group				
PKF	1995	28	31.12	58
BDO	2013	10	31.12	83
Moore Stephens	1993	30	31.12	92
Mazars	2007	16	31.8	52
Elliniki Elegktiki	2010	13	31.12	32
KSI	2013	10	31.12	33
Olympia	2012	11	31.12	19
Orion	2003	20	31.12	20
Baker Tilly	2015	8	31.12	N/A
Action	2012	11	31.12	17
KMC	2012	11	30.6	5
Nexia Eurostatus	1999	24	31.12	25
RSM	1990	33	30.6	11
Audit Opinion	2014	9	31.12	N/A
Mean		**17**		**37**
Total Sample				
Mean		**21**		**172**

Notes: Age is as of 31/12/2023. Personnel is based on the latest available financial statements published.

[3] It must be noted that based on turnover for 2023, TGS (HELLAS) was ranked 13th among all the Greek audit firms. However, this firm has had no constant presence in the market during the entire period under study (as it was established in 2018) and, thus, has not been included in the sample.

4.2 Accounting Outlook

4.2.1 Accounting Figures

Table 2 presents key accounting figures from the balance sheet and income statement of the audit firms under review, which include total assets, non-current assets, current assets, cash, equity, long-term liabilities, current liabilities, total liabilities, turnover (sales), profit before tax (PBT), taxation, which includes tax on taxable profits and deferred tax where applicable, and profit after tax (PAT). The data in the table concerns the mean terms of the annual accounting figures for the whole period under review and have been manually collected from the financial statements of the firms, which are published on the General Commercial Register (G.E.MH.).

Sample's mean assets amount to €6.7 million. The largest firm is SOL/Crowe, with average assets reaching €25.3 million. The smallest firm is KSI, with mean assets of €416 thousand. The mean non-current and current assets of the sample amounts to € 622 thousand and €6.1 million, respectively. The average cash reserve of the Big 6 amounts to €3.6 million, while the average cash reserve of the remaining companies is significantly lower at €402 thousand.

The average equity of the sample amounts to €2.1 million, with the equity of the Big 6 counting for approximately 10 times the equity of the smaller companies. The long-term liabilities of the sample are equal to €870 thousand, while the short-term liabilities amount to €3.8 million. i.e., 4 times the long-term liabilities. The average total liabilities for all the companies examined are equal to €4.6 million.

When it comes to the profit and loss statement, the mean turnover (sales) of the Greek audit companies under review equals €9.9 million. The average sales of the Big 6 amounts to €27.8 million, while the corresponding average of the smaller companies amounts to €2.2 million. PWC presents the highest average sales during the period 2015-2023 (€36.5 million), while Audit Opinion shows the lowest turnover (€603 thousand).

The average profit before tax of the sample is €902 thousand, with the relevant average of the Big 6 corresponding to 13 times the profits before tax of the smaller companies. The most profitable company in the sample is SOL/Crowe (€5.1 million), while the least profitable is Baker Tilly, which shows losses of €36 thousand. The average tax burden of the sample amounts to €269 thousand. This amount corresponds to approximately 30% of the average profits before taxes. Finally, the sample's average profit after taxes equals €633 thousand.

Table 2. Accounting Figures

Audit Firm	Assets	Non-Current Assets	Current Assets	Cash	Equity	Non-Current Liabilities	Current Liabilities	Total Liabilities	Sales	PBT	Taxation	PAT
Big 6 Group												
Deloitte	15,373,974	1,579,138	13,794,836	2,519,924	4,658,351	2,863,137	7,852,486	10,715,623	31,179,143	1,800,449	894,804	905,645
PWC	23,317,727	2,011,048	21,306,679	2,394,875	5,325,210	3,859,626	14,132,891	17,992,516	36,504,540	3,608,136	1,207,380	2,400,757
EY	18,424,343	2,275,856	16,148,487	3,833,236	3,308,193	2,063,245	13,052,904	15,116,149	27,767,361	2,164,972	592,543	1,572,429
SOL/Crowe	25,263,965	1,022,140	24,241,825	6,659,057	10,929,733	2,466,897	11,867,334	14,334,232	33,896,745	5,089,113	1,234,794	3,854,319
Grant Thornton	16,088,578	2,847,029	13,241,549	2,415,780	4,729,501	1,767,129	9,591,949	11,359,078	22,217,608	1,761,777	344,829	1,416,948
KPMG	11,363,487	1,182,086	10,181,402	3,797,157	4,186,148	1,922,023	5,255,316	7,177,340	15,234,075	821,010	270,293	550,717
Mean	**18,305,346**	**1,819,549**	**16,485,796**	**3,603,338**	**5,522,856**	**2,490,343**	**10,292,147**	**12,782,490**	**27,799,912**	**2,540,910**	**757,440**	**1,783,469**
Non-Big 6 Group												
PKF	5,027,878	70,495	4,957,384	1,962,553	904,172	620,654	3,503,052	4,123,707	5,492,529	296,569	119,367	177,202
BDO	2,924,861	410,312	2,514,549	324,888	799,837	362,396	1,762,629	2,125,025	4,024,372	281,746	73,238	208,508
Moore Stephens	1,968,392	56,372	1,912,019	238,543	327,905	411,935	1,228,552	1,640,487	4,577,415	42,710	20,094	22,616
Mazars	3,484,867	525,220	2,959,647	103,335	1,234,081	640,703	1,610,083	2,250,786	3,502,180	203,714	83,067	120,647
Elliniki Elegkti	2,140,552	44,087	2,096,466	477,554	1,100,054	113,851	926,647	1,040,498	2,563,327	230,488	74,461	156,027
KSI	416,035	9,731	406,304	35,097	169,439	402	246,195	246,596	1,073,785	40,695	13,539	27,156
Olympia	1,203,875	3,673	1,200,202	563,894	533,794	0	670,081	670,081	1,791,454	264,412	77,181	187,232
Orion	1,227,893	22,477	1,205,416	411,306	357,530	53,124	817,239	870,364	1,254,543	156,596	42,224	114,372
Baker Tilly	703,077	161,395	541,682	49,444	-56,651	0	759,728	759,728	988,623	-35,687	1,007	-36,693
Action	1,023,244	9,570	1,013,674	551,071	473,876	0	549,368	549,368	1,286,048	319,796	83,741	236,056
KMC	1,913,528	50,901	1,862,627	317,677	1,335,069	169,373	409,087	578,459	1,142,902	595,097	147,311	447,786
Nexia Eurostat	702,895	114,097	588,797	243,876	264,963	67,008	370,923	437,932	1,153,114	103,333	26,841	76,493
RSM	986,157	26,394	959,763	121,723	503,084	13,062	470,011	483,073	980,925	153,295	42,093	111,201
Audit Opinion	478,718	12,643	466,075	222,105	152,316	17	326,386	326,403	602,847	146,317	34,640	111,677
Mean	**1,728,712**	**108,383**	**1,620,329**	**401,648**	**578,533**	**175,180**	**974,999**	**1,150,179**	**2,173,862**	**199,935**	**59,915**	**140,020**
Total Sample Mean	**6,701,702**	**621,733**	**6,079,969**	**1,362,155**	**2,061,830**	**869,729**	**3,770,143**	**4,639,872**	**9,861,677**	**902,227**	**269,172**	**633,055**

Notes: The accounting figures presented in this table concern the mean terms of the annual figures over the period 2015-2023. PBT: Profit Before Tax; PAT: Profit After Tax.

Table 3. Growth in Accounting Figures

Audit Firm	Assets	Non-Current Assets	Current Assets	Cash	Equity	Non-Current Liabilities	Current Liabilities	Total Liabilities	Sales	PBT	Taxation	PAT
Big 6 Group												
Deloitte	7.26%	-6.38%	9.25%	11.49%	8.86%	2.58%	0.45%	8.73%	7.85%	132.31%	76.64%	778.70%
PWC	0.46%	-12.64%	2.01%	33.83%	21.43%	-0.03%	0.26%	-2.36%	1.90%	29.15%	17.34%	41.40%
EY	6.38%	66.34%	4.83%	-7.88%	7.40%	6.89%	0.36%	6.41%	6.27%	8.84%	1.87%	11.68%
SOL/Crowe	-1.23%	4.09%	-1.38%	22.59%	7.51%	-0.96%	-0.12%	-5.50%	0.37%	105.14%	178.14%	90.25%
Grant Thornton	6.15%	50.11%	1.49%	5.70%	16.97%	-0.23%	0.47%	4.99%	3.08%	72.92%	-157.45%	127.96%
KPMG	4.94%	75.80%	-1.25%	-6.38%	22.08%	30.96%	0.02%	43.19%	4.66%	-45.03%	236.92%	-65.13%
Mean	**3.99%**	**29.55%**	**2.49%**	**9.89%**	**14.04%**	**6.53%**	**0.24%**	**9.25%**	**4.02%**	**50.55%**	**58.91%**	**164.14%**
Non-Big 6 Group												
PKF	7.83%	11.46%	7.81%	19.51%	12.82%	4.74%	0.59%	7.24%	9.37%	57.25%	39.81%	1087.67%
BDO	0.71%	160.37%	-2.62%	6.94%	10.72%	-2.08%	1.41%	0.30%	6.06%	169.81%	8.42%	498.44%
Moore Stephens	-2.56%	1.75%	-2.65%	27.72%	6.80%	-0.66%	-0.07%	-3.79%	1.42%	331.23%	256.12%	304.44%
Mazars	3.15%	34.69%	1.96%	57.41%	18.36%	9.39%	0.77%	16.15%	-0.14%	521.85%	-0.60%	9.18%
Elliniki Elegktiki	8.42%	9.84%	8.42%	25.09%	10.75%	7.04%	2.08%	10.29%	6.34%	1.65%	1.69%	1.92%
KSI	13.89%	0.82%	14.70%	42.92%	50.59%	8.94%	0.00%	9.06%	21.43%	14.06%	34.78%	23.22%
Olympia	-1.91%	10.89%	-1.91%	14.28%	11.47%	1.24%	0.00%	1.24%	-0.01%	42.85%	9.10%	110.71%
Orion	7.65%	133.98%	7.82%	26.59%	21.46%	6.83%	0.18%	6.96%	5.63%	20.48%	9.34%	27.15%
Baker Tilly	47.27%	31.07%	65.15%	145.45%	94.21%	53.71%	-0.13%	53.71%	21.29%	-11.33%	-83.21%	106.87%
Action	-3.08%	5.83%	-3.12%	4.12%	18.20%	4.88%	0.00%	4.88%	5.63%	9.10%	5.85%	10.39%
KMC	11.22%	128.82%	12.04%	39.49%	30.73%	61.00%	-0.08%	28.97%	3.70%	0.86%	-2.47%	2.82%
Nexia Eurostatus	1.88%	1.59%	2.83%	9.05%	11.31%	1.41%	0.17%	4.43%	5.91%	57.43%	51.30%	60.83%
RSM	3.63%	-3.75%	3.90%	183.20%	15.69%	-8.35%	1.35%	-8.31%	4.46%	40.50%	23.53%	51.86%
Audit Opinion	43.92%	182.65%	44.06%	69.84%	36.90%	57.73%	-0.13%	57.70%	25.87%	42.94%	38.57%	44.80%
Mean	**10.14%**	**50.72%**	**11.31%**	**47.97%**	**25.00%**	**14.70%**	**0.44%**	**13.49%**	**8.35%**	**92.76%**	**28.02%**	**167.16%**
Total Sample Mean	**8.30%**	**44.37%**	**8.67%**	**36.55%**	**21.71%**	**12.25%**	**0.38%**	**12.22%**	**7.05%**	**80.10%**	**37.29%**	**166.26%**

Notes: The percentages of growth in accounting figures presented in this table concern the mean terms of the annual percentages over the period 2015-2023. PBT: Profit Before Tax; PAT: Profit After Tax.

4.2.2 Growth in Accounting Figures

Table 3 presents the average terms of the annual percentage changes (growth) during the period 2015-2023 of the main accounting figures in Table 2. The sample's assets show an average annual increase of 8.3%, with the relevant average percentage of the non-Big 6 firms being approximately 2.5 times higher than that of the Big 6. Non-current assets of the sample increased by an annual rate of 44.4% during the period under review, while current assets increased by a rate of 8.67%. Cash shows a significant average annual growth of 36.6%. In relation to cash reserves, it is important to note that the relevant annual growth rate in the smallest firms approximates 50%, while the corresponding average annual growth of the Big 6 is only 9.9%.

The average growth rate of equity of the sample equals 21.7%, with the mean terms of the Big 6 and smaller firms being equal to 14% and 25%, respectively. The sample's long-term and short-term liabilities grew at an annual rate of 12.3% and 0.4%, respectively, while total liabilities grew by 12.2%. Overall, the liabilities of the smaller firms show higher annual growth rates than those of the Big 6.

In terms of turnover, the Big 6 companies show an average annual growth of 4%. The corresponding growth of the smaller companies equals 8.4%. To our view, the difference between the two groups indicates a relative increase in the share of the smaller firms compared to the 6 large audit firms that operate in the Greek market.

The sample's profit before tax shows an average annual growth of 80%. The relevant average of the Big 6 amounts to 50.6%, while the corresponding average of the smaller companies is close to 93%. In relation to taxation, the sample's average annual increase is equal to 37.3%, while taxation shows an average annual increase of 59% and 28% for the Big 6 and the smallest firms, respectively. Finally, the sample's profit after tax grew by an average of 166% over the period 2015-2023, with the smaller companies showing a slightly better average annual growth rate in profit after tax than the Big 6 (167% and 164%, respectively).

An overall conclusion that can be drawn from the comparative analysis of the accounting figures between the Big 6 and the smaller audit firms is that, while the absolute figures of the Big 6 are significantly larger than those of the smaller firms, the annual growth rates of the accounting figures are much higher for the smaller firms. This fact indicates an improvement in the relative position of the smaller firms in the Greek audit market compared to the Big 6. In addition, the higher mean annual

increase in the total tax burden of the Big 6 firms is a further relative disadvantage of these firms in comparison to the smaller ones.

4.2.3 Balance Sheet Structure

Table 4 shows the structure of the main balance sheet items of the sample companies. The table presents the percentages of non-current assets to total assets, current assets to total assets, cash reserves to total assets, equity to total assets, short-term liabilities to total liabilities, and long-term liabilities to total liabilities.

According to the data in Table 4, the average non-current assets of the sample correspond to 7.6% of total assets. The relevant average term of the Big 6 is greater than that of the smaller companies (10% and 6.6% respectively). The opposite relationship applies to the ratio of current assets to total assets between the Big 6 and the smaller firms. For the entire sample, the average ratio of current to total assets is 92.4%. Moreover, the average company in the sample holds cash equivalent to 23.5% of its total assets, with the smaller companies holding slightly higher percentages of cash than the Big 6 (24.7% vs. 20.8%).

The equity of the Greek audit companies examined amounts to an average of 33.7% of their assets. The average of the Big 6 equals 29.8%, while the average of the smaller firms amounts to 35.5%. Short-term liabilities equal 87% of total liabilities. The Big 6 show a lower average term of short-term to total liabilities than that of the smaller companies (81.3% vs. 89.7%). The opposite is true for the ratio of long-term to total liabilities. The respective average of the sample equals 12.8%.

4.2.4 Sales and Profitability Around Crises

Table 5 presents the sales, profit before tax and profit after tax of the audit companies examined during three sub-intervals, namely the period 2015-2019, which corresponds to the last phase of the severe Greek financial crisis,[4] as well as the pre-covid period, the Covid-19 year 2020,[5] and the period 2021-2023, which regards the post-financial crisis period of the Greek economy, as well as the post-covid period.

[4] The start of the fiscal and financial crisis in Greece is located at the end of 2008, while the crisis became official in the spring of 2010. 2019 is the last year of crisis after the exit of Greece from the bailout programs in August 2018.

[5] Like other economies in the world, Greece experienced a deep recession in 2020 relating to the negative economic repercussions of the Covid-19 pandemic.

Table 4. Balance Sheet Structure

Audit Firm	Non-Current/TotAssets	Current/TotAssets	Cash/ TotAssets	Equity/ TotAssets	CurLiab/ TotLiab	NonCurLiab/ TotLiab
Big 6 Group						
Deloitte	10.73%	89.27%	16.43%	29.96%	73.86%	26.14%
PWC	8.56%	91.44%	10.19%	22.77%	78.27%	21.73%
EY	11.80%	88.20%	22.32%	17.97%	86.41%	13.59%
SOL/Crowe	4.08%	95.92%	26.79%	43.63%	84.25%	15.75%
Grant Thornton	15.90%	84.10%	14.96%	28.57%	85.23%	14.77%
KPMG	8.83%	91.17%	34.15%	35.61%	79.56%	20.44%
Mean	**9.98%**	**90.02%**	**20.81%**	**29.75%**	**81.26%**	**18.74%**
Non-Big 6 Group						
PKF	1.39%	98.61%	37.27%	18.09%	85.97%	14.03%
BDO	13.98%	86.02%	11.15%	26.84%	83.54%	16.46%
Moore Stephens	2.93%	97.07%	12.56%	16.64%	74.81%	25.19%
Mazars	14.94%	85.06%	2.98%	37.18%	76.98%	23.02%
Elliniki Elegktiki	2.06%	97.94%	20.93%	52.12%	91.44%	8.56%
KSI	2.78%	97.22%	8.61%	38.68%	99.89%	0.11%
Olympia	0.31%	99.69%	47.79%	43.22%	100.00%	0.00%
Orion	1.85%	98.15%	31.76%	29.31%	94.05%	5.95%
Baker Tilly	26.14%	73.86%	7.83%	-9.54%	100.00%	0.00%
Action	0.98%	99.02%	52.84%	47.11%	100.00%	0.00%
KMC	2.77%	97.23%	16.31%	69.00%	65.53%	34.47%
Nexia Eurostatus	16.57%	83.43%	34.02%	37.98%	86.15%	13.85%
RSM	2.72%	97.28%	12.43%	50.42%	97.33%	2.67%
Audit Opinion	3.20%	96.80%	49.52%	39.23%	99.97%	0.03%
Mean	**6.62%**	**93.38%**	**24.71%**	**35.45%**	**89.69%**	**10.31%**
Total Sample Mean	**7.63%**	**92.37%**	**23.54%**	**33.74%**	**87.16%**	**12.84%**

Note: The percentages presented in this table concern the mean terms of the annual percentages over the period 2015-2023.

Table 5. Sales and Profitability Around the Greek Financial Crisis and the Covid-19 Era

Audit Firm	Mean Sales 2015-19	Sales 2020	Mean Sales 2021-23	Mean PBT 2015-19	PBT 2020	Mean PBT 2021-23	Mean PAT 2015-19	PAT 2020	Mean PAT 2021-23
Big 6 Group									
Deloitte	26,212,688	30,775,561	39,591,095	1,237,329	2,794,136	2,407,753	646,802	1,545,003	1,123,931
PWC	35,313,411	35,433,867	38,846,645	2,805,546	2,636,875	5,269,542	1,578,716	1,938,451	3,924,927
EY	24,156,800	24,359,458	34,920,931	2,191,249	1,300,515	2,409,328	1,535,732	887,050	1,862,052
SOL/Crowe	33,875,109	32,097,117	34,532,682	3,768,267	6,951,955	6,669,576	2,794,029	5,148,016	5,190,236
Grant Thornton	20,833,545	20,875,079	24,971,890	1,413,720	2,884,354	1,967,681	979,330	2,859,458	1,665,474
KPMG	13,794,135	13,202,338	18,311,221	260,811	873,367	1,737,222	6,991	850,018	1,357,161
Mean	**25,697,614**	**26,123,903**	**31,862,411**	**1,946,154**	**2,906,867**	**3,410,184**	**1,256,933**	**2,204,666**	**2,520,630**
Non-Big 6 Group									
PKF	4,490,627	5,158,892	7,273,578	183,067	405,760	449,342	84,714	272,829	299,473
BDO	3,682,725	3,605,118	4,733,534	289,354	312,714	258,743	221,458	243,626	175,220
Moore Stephens	4,523,360	4,232,499	4,782,480	93,405	-82,993	121	63,851	-115,880	56
Mazars	3,515,803	2,856,237	3,791,094	254,274	56,481	150,932	149,822	27,941	94,062
Elliniki Elegktiki	2,283,028	2,530,911	3,041,295	222,997	245,579	237,943	151,759	165,389	160,018
KSI	699,833	1,124,281	1,680,208	49,779	46,315	23,680	34,204	34,181	13,068
Olympia	1,819,224	1,614,468	1,804,166	211,125	232,402	363,896	132,489	166,378	285,421
Orion	1,183,343	1,018,370	1,451,933	103,353	193,287	233,106	68,743	142,398	181,079
Baker Tilly	676,252	1,296,907	1,406,479	-169,174	460,657	21,345	-136,813	362,310	-2,829
Action	1,194,453	1,275,153	1,442,337	282,361	417,369	349,665	200,099	316,928	269,027
KMC	1,141,986	1,066,759	1,183,262	621,770	554,846	548,540	456,920	439,890	428,898
Nexia Eurostatus	1,156,600	1,051,565	1,181,152	73,320	78,633	161,588	48,899	55,964	129,324
RSM	951,187	852,018	1,119,726	74,190	191,957	331,726	45,281	145,713	258,746
Audit Opinion	341,709	782,190	978,294	42,882	213,242	296,400	31,184	161,769	229,136
Mean	**1,975,724**	**2,033,241**	**2,562,110**	**166,622**	**237,589**	**244,788**	**110,901**	**172,817**	**180,050**
Total Sample Mean	**9,092,291**	**9,260,439**	**11,971,458**	**700,481**	**1,038,373**	**1,260,418**	**454,711**	**782,372**	**930,172**
T-test post-FinCrisis vs pre-FinCrisis			**2.760****			**2.589****			**2.581****
T-test Covid vs pre-Covid		**0.646**			**1.746*****			**2.086*****	
T-test post-Covid vs Covid			**3.126***			**0.974**			**0.749**

*Statistically significant at 1%; ***Statistically significant at 10%

The sample's average sales over the period of financial crisis amounted to 9.1 million. Average sales in 2020 were equal to $9.3 million, while mean sales in the post-crisis period amounted to €12 million. T-testing applied on the differences in sales between the post-financial crisis and pre-financial crisis indicates that sales were significantly larger in the post-financial crisis period. In addition, T-testing applied on the differences in sales between the Covid-19 year and the pre-covid period shows that this difference is statistically insignificant. On the contrary, the difference in sales between the post-covid period and the Covid-19 year is statistically significant.

The sample's average profit before tax in the period of financial crisis amounts to €700 thousand, while the corresponding average profit for the period after the financial crisis equals €1.26 million. The difference between these figures is significant at 5%. The sample's average profit before tax for 2020 equals €1.1 million. The relevant t-statistics show that the difference in profit before tax between 2020 and the period 2015-2019 is statistically significant, while the difference between 2020 and the period 2021-2023 is not.

Finally, the sample's mean profit after tax for the three sub-intervals considered is equal to €455, €782, and €930 thousand, respectively. Like profit before tax, the difference in profit after tax between the period of financial crisis and the period after this crisis is statistically significant. At the same time, the difference in profit after tax between 2020 and the period 2015-2019 is significant, whereas the difference between 2020 and the interval 2021-2023 is not.

Based on the analysis of sales and profits above, we can infer that after the end of the financial crisis in Greece, business activity in the country's audit sector, expressed via sales and profitability, started to flourish as compared to the crisis period. In addition, sales were significantly larger in the period after the Covid-19 year (i.e., 2020), while sales of 2020 were commensurate to the average sales in the pre-covid period 2015-2019. On the other hand, surprisingly enough, profits were significantly better in 2020 than in the pre-covid period, but the profitability of 2020 does not differ statistically from profitability after Covid-19 over the period 2021-2023.

4.2.5 Research Methods and Models

In the first step, we calculate ten liquidity, leverage, profitability and efficiency ratios. The ratios used are as follows:

A	**Liquidity Ratios**
1.	Acid-Test Ratio = (Current Assets - Inventories) / Current Liabilities *This ratio measures a company's ability to pay off short-term liabilities with current assets. Given that audit companies have no inventories, this ratio is equal to the Current Ratio = Current Assets / Current Liabilities.*
2.	Cash Ratio = Cash and Cash Equivalents / Current Liabilities *This ratio measures a company's ability to pay off short-term liabilities with cash and cash equivalents.*
B.	**Leverage Ratios**
1.	Debt Ratio = Total Liabilities / Total Assets *This ratio measures the relative amount of a company's assets that are financed via debt.*
2.	Debt to Equity Ratio = Total liabilities / Shareholders' Equity *This ratio measures the weight of total debt and financial liabilities against shareholders' equity.*
C.	**Profitability Ratios**
1.	Return on Assets (ROA) = Profit After Tax (PAT) / Assets *This ratio measures how efficiently a company is using its assets to generate profit.*
2.	Return on Equity (ROE) = Profit After Tax (PAT) / Shareholders' Equity *This ratio measures how efficiently a company is using its equity to generate profit.*
3.	Return on Capital Employed (ROCE) = Profit After Tax (PAT) / (Assets - Current Liabilities) *This ratio measures a company's profitability relative to the capital it has invested.*
4.	Profits Before Tax to Sales Ratio = Profit Before Tax (PBT) / Total Sales *This ratio measures a company's profit before tax as a portion of its sales.*
5.	Profits After Tax to Sales Ratio = Profit After Tax (PAT) / Total Sales *This ratio measures a company's profit after tax as a portion of its sales.*
D.	**Efficiency Ratios**
1.	Asset Turnover Ratio = Total Sales / Total Assets *This ratio measures a company's ability to generate sales from assets.*

In addition to the analysis of financial ratios over the entire period under study, we focus on the three key profitability ratios, namely ROA, ROE, and ROCE, to make comparisons between the period of financial crisis in Greece and the period after that crisis. Moreover, we examine the possible impact on these ratios by the Covid-19 crisis.

After the calculation of financial ratios, we run the following single-factor rmodel, via which financial performance is regressed on a Big 6 dummy variable:

$$Pnce = \beta_0 + \beta_1 Big6 + u \quad (1)$$

where Pnce stands for the annual financial performance, while the Big6 dummy takes value 1 for a Big 6 firm and zero otherwise. Financial performance is successively expressed by the five profitability ratios above, i.e., ROA, ROE, ROCE, PBT/Sales, and PAT/Sales. The model is applied with panel data over the period 2015-2023. In the Hypotheses Development section, we have expressed the expectation that the status of audit firms, that is, whether a company belongs to Big 6 or not, will affect their financial performance in a positive way. However, as we will see (in Table 6) below, the smaller companies perform better than the Big 6, and thus, the slope of the model should be negative and statistically significant.

In the second step, we apply a multivariate panel data model trying to detect factors that possibly affect financial performance. The model applied is the following:

$$Pnce = \beta_0 + \beta_1 Size + \beta_2 Age + \beta_3 DR + \beta_4 DER + \beta_5 AcR + \beta_6 CR + \beta_6 EFR + u \quad (2)$$

where Pnce is defined as above. Size concerns the natural logarithm of a firm's assets at the end of each single year in the study period. Age is the natural logarithm of a firm's age. DR refers to the debt ratio. DER regards the debt-to-equity ratio. AcR is the acid-test ratio. CR stands for the cash ratio. EFR is the efficiency ratio.

As we saw in the literature review, the size of an audit firm is positively related to its financial performance. Thus, we should expect a positive coefficient for the size factor in model (2). This is in line with the relevant research hypothesis made in the Hypotheses Development section.

When it comes to age, in the Hypotheses Development section, we have assumed a positive relationship between age and financial performance. However, the correlation of age with a firm's performance has been inconclusive in literature. Several studies report that older firms outperform their younger peers since they are more experienced in the context of a phenomenon called "learning by doing" (Coad *et al*. 2013). However, other researchers suggest that older firms are inflexible to adopt new changes as they get older and, consequently, they perform worse than the younger peers (Barron *et al*. 1994). As we will see (in Table 6) below, in our case the smaller companies have better financial performance ratios than the Big 6. Based on this observation, we should expect a significantly negative slope for the age factor in model (2).

When it comes to leverage, there are studies that report a negative impact of this factor on a company's financial performance (e.g., Yameen *et al*., 2019). If this is the case for our sample, the coefficients of DR and DER in model (2) should be

negative and statistically significant. Negative slopes of the DR and DER variables will be in line with our hypothesis in section 3 about a negative relationship between leverage on financial performance.

Furthermore, liquidity is crucial for a firm to be able to meet its short-term obligations without jeopardizing its operation as a going concern. Zygmunt (2013) points out that the lack of sound liquidity for a company might undermine its financial performance. Based on this analysis, the coefficients of the two liquidity ratios in model (2) should be positive and significant. Positive slopes for the liquidity ratios will verify our hypothesis about a positive impact on financial performance by liquidity.

Finally, according to various researchers (e.g., Khan *et al*., 2021), efficiency is positively related to financial performance. Consequently, the estimate of efficiency ratio is expected to be positive. If the empirical results are positive, then our assumption about a positive relationship between efficiency and financial performance will be verified.

5. Empirical Results

5.1 Financial Ratios

Table 6 shows the ten liquidity, leverage, profitability and efficiency ratios considered in our analysis. The sample's average acid-test ratio is 196.6%. This percentage shows that the sum of cash reserves and short-term receivables of the companies examined covers approximately two times their short-term liabilities. This fact certifies the high liquidity of the audit firms in the sample. The relevant average of smaller firms is better than that of the Big 6 (202.8% vs. 182.4%). The average cash ratio is equal to 50.8%, showing that cash reserves can cover half of short-term liabilities. Overall, the liquidity of the companies under review is deemed to be extremely satisfactory.

Table 6. Financial Ratios

Audit Firm	Acid-Test Ratio	Cash Ratio	Debt/ Assets	Debt/ Equity	ROA	ROE	ROCE	PBT/ Sales	PAT/ Sales	Efficiency
Big 6 Group										
Deloitte	182.19%	33.80%	70.04%	258.51%	5.75%	18.15%	11.30%	5.55%	2.81%	201.70%
PWC	156.10%	16.99%	77.23%	378.03%	10.26%	45.47%	26.77%	9.71%	6.43%	157.00%
EY	124.59%	31.05%	82.03%	460.21%	8.51%	47.73%	31.37%	7.89%	5.67%	150.96%
SOL/Crowe	208.75%	56.40%	56.37%	142.26%	15.56%	32.80%	28.86%	15.17%	11.48%	134.43%
Grant Thornton	140.83%	26.13%	71.43%	304.77%	8.74%	29.85%	23.72%	7.89%	6.36%	139.76%
KPMG	281.89%	119.47%	64.39%	773.63%	4.48%	16.50%	10.08%	4.73%	3.06%	135.27%
Mean	**182.39%**	**47.31%**	**70.25%**	**386.23%**	**8.89%**	**31.75%**	**22.02%**	**8.49%**	**5.97%**	**153.19%**
Non-Big 6 Group										
PKF	141.24%	54.37%	81.91%	464.87%	3.22%	18.47%	10.88%	5.17%	2.99%	108.64%
BDO	145.55%	18.31%	73.16%	331.21%	7.34%	26.90%	20.39%	6.95%	5.21%	139.74%
Moore Stephens	156.77%	20.44%	83.36%	525.88%	0.93%	5.61%	2.15%	0.91%	0.46%	237.09%
Mazars	191.93%	6.92%	62.82%	449.63%	3.15%	10.67%	5.46%	5.24%	3.00%	101.07%
Elliniki Elegktiki	229.56%	49.11%	47.88%	96.54%	7.62%	14.91%	13.69%	9.15%	6.20%	122.46%
KSI	163.70%	14.41%	61.32%	216.97%	7.91%	27.69%	27.69%	5.03%	3.42%	248.74%
Olympia	196.48%	95.50%	56.78%	162.47%	16.18%	44.31%	44.31%	14.71%	10.42%	150.59%
Orion	149.62%	47.74%	70.69%	276.17%	8.77%	33.86%	27.75%	12.46%	9.06%	104.91%
Baker Tilly	73.10%	9.04%	109.54%	33.82%	-9.59%	98.24%	98.24%	-8.75%	-7.77%	161.78%
Action	207.85%	114.18%	52.89%	142.39%	23.57%	55.07%	55.07%	24.90%	18.32%	132.10%
KMC	639.08%	116.45%	31.00%	72.50%	24.42%	41.10%	34.20%	52.11%	39.16%	62.37%
Nexia Eurostatus	162.89%	67.09%	62.02%	186.88%	10.22%	27.07%	20.60%	9.28%	6.93%	168.71%
RSM	213.87%	32.50%	49.58%	105.07%	11.30%	20.86%	20.25%	15.08%	10.88%	100.30%
Audit Opinion	166.88%	86.72%	60.77%	178.55%	22.69%	64.63%	64.58%	20.25%	15.26%	174.30%
Mean	**202.75%**	**52.34%**	**64.55%**	**231.64%**	**9.84%**	**34.96%**	**31.80%**	**12.32%**	**8.83%**	**143.77%**
Total Sample Mean	**196.64%**	**50.83%**	**66.26%**	**278.02%**	**9.55%**	**33.99%**	**28.87%**	**11.17%**	**7.97%**	**146.60%**

Notes: The financial ratios presented in this table are the mean terms of the annual figures over the period 2015-2023. Quick Ratio = (Current Ratio - Inventories)/Current Liabilities; Cash Ratio = Cash/Current Liabilities; ROA = Return on Assets = Profit After Tax/Total Assets; ROE = Return on Equity = Profit After Tax/Total Equity; ROCE = Return on Capital Employed = Profit After Tax/(Total Assets-Current Liabilities); Efficiency Ratio = Sales/Total Assets.

The sample's average debt ratio is 66.3%, while the average debt to equity ratio equals 278%. For both ratios, the relative average terms of the Big 6 are higher than those of smaller firms. In any case, these ratios show that to a significant extent the firms examined are financed through foreign capital. Given this observation, we see in Table 6 that the average debt to equity ratio of smaller companies is significantly better than that of the Big 6 (231.6% vs. 386.2%).

When it comes to profitability ratios, the sample's average ROA is 9.6%, with the average terms of the Big 6 and smaller companies being equal to 8.9% and 9.8%, respectively. The average ROE of the sample equals 34%. The average ROE of the Big 6 amounts to 31.8%, while the corresponding average ratio of smaller companies equals 35%. The average ROCE of smaller companies is better than that of the Big 6 (31.8% versus 22%), while the average ROCE ratio of the entire sample is equal to 28.9%.

Overall, these three profitability ratios indicate that the smaller firms are using their assets, equity and total capital employed more efficiently to make profits. Similar inferences can be drawn from the examination of the profitability ratios (before and after taxes) to sales. For both ratios, the relevant average terms of smaller companies are better than those of the Big 6.

The only ratio in which the Big 6 outperform small firms is the efficiency ratio, which measures firms' ability to use their assets to make sales. The average efficiency ratio of the Big 6 is 153.2%, while the respective ratio of smaller firms amounts to 143.8%. The average efficiency ratio of the entire sample is equal to 146.6%, verifying the significant ability of the audit companies operating in Greece to generate sales through the effective utilization of their assets.

5.2 Financial Ratios Around Crises

Table 7 presents ROA, ROE and ROCE during the period 2015-2019, year 2020 and the period 2021-2023. The sample's average ROA over the first interval is 7.25%. ROA is higher in 2020 at 12.93%. Average ROA slightly decreases at 12.37% in the period 2021-2023. In any single interval, the average ROA of smaller firms is better than that of the Big 6. Relevant t-testing shows that the difference in average ROAs between the period of financial crisis (2015-2019) and the period after the crisis (2021-2023) is statistically significant. This is also the case about the differences in ROAs between 2020 and the period 2015-2019, but the corresponding difference between the period 2021-2023 and 2020 is not.

Table 7. Financial Performance Around the Greek Financial Crisis and the Covid-19 Era

Audit Firm	ROA 2015-19	ROA 2020	ROA 2021-23	ROE 2015-19	ROE 2020	ROE 2021-23	ROCE 2015-19	ROCE 2020	ROCE 2021-23
Big 6 Group									
Deloitte	4.54%	9.80%	6.43%	17.01%	26.92%	17.13%	10.37%	18.44%	10.47%
PWC	6.63%	9.45%	16.57%	28.61%	55.55%	70.19%	17.69%	36.14%	38.79%
EY	9.41%	5.26%	8.10%	54.10%	28.74%	43.45%	38.36%	13.77%	25.60%
SOL/Crowe	10.92%	20.97%	21.51%	24.71%	43.36%	42.76%	18.13%	42.73%	42.13%
Grant Thornton	7.13%	18.43%	8.21%	31.52%	44.04%	22.33%	26.63%	37.30%	14.34%
KPMG	-0.37%	8.97%	11.08%	-27.79%	73.31%	71.39%	-2.45%	21.52%	27.16%
Mean	**6.37%**	**12.15%**	**11.98%**	**21.36%**	**45.32%**	**44.54%**	**18.12%**	**28.32%**	**26.41%**
Non-Big 6 Group									
PKF	1.95%	5.41%	4.62%	10.55%	31.84%	27.22%	8.50%	15.85%	13.19%
BDO	7.91%	7.49%	6.34%	27.93%	36.86%	21.86%	24.07%	20.95%	14.08%
Moore Stephens	2.88%	-5.91%	-0.04%	20.00%	-34.41%	-5.03%	7.75%	-16.53%	-0.96%
Mazars	3.94%	0.73%	2.38%	7.60%	15.29%	16.06%	6.39%	1.66%	5.04%
Elliniki Elegktiki	8.77%	6.45%	6.10%	15.91%	15.15%	13.16%	15.61%	11.74%	11.14%
KSI	10.99%	7.94%	2.77%	44.09%	16.58%	4.07%	44.09%	16.58%	4.06%
Olympia	9.74%	16.56%	26.79%	19.43%	67.69%	78.00%	19.43%	67.69%	78.00%
Orion	6.62%	10.48%	11.78%	20.86%	60.49%	46.64%	18.61%	44.96%	37.23%
Baker Tilly	-25.01%	34.82%	1.29%	96.34%	428.46%	-8.66%	96.34%	428.46%	-8.66%
Action	19.18%	25.78%	30.15%	44.11%	78.84%	65.40%	44.11%	78.84%	65.40%
KMC	26.64%	25.20%	18.50%	49.93%	34.12%	22.51%	40.32%	30.00%	20.99%
Nexia Eurostatus	7.47%	7.47%	15.73%	15.71%	33.60%	43.80%	14.28%	16.12%	32.64%
RSM	4.42%	19.82%	24.24%	9.88%	44.00%	36.74%	9.61%	40.93%	36.53%
Audit Opinion	21.28%	23.40%	24.81%	46.49%	73.59%	91.89%	46.39%	73.59%	91.89%
Mean	**7.63%**	**13.26%**	**12.53%**	**30.63%**	**64.44%**	**32.40%**	**28.25%**	**59.35%**	**28.61%**
Total Sample Mean	**7.25%**	**12.93%**	**12.37%**	**27.85%**	**58.70%**	**36.05%**	**25.21%**	**50.04%**	**27.95%**
T-test post-FinCrisis vs pre-FinCrisis			**2.502****			**1.876*****			**1.755*****
T-test Covid vs pre-Covid		**1.803*****			**1.771*****			**1.744*****	
T-test post-Covid vs Covid			**-0.271**			**-1.029**			**-1.005**

*Statistically significant at 10%; **Statistically significant at 5%; ***Statistically significant at 1%

Similar trends are observed in ROE and ROCE. The mean ratios of the "small" firms are better than those of the Big 6. In addition, at the sample level, the differences between the ratios in the financial crisis period and the post-crisis period are statistically significant. On the other hand, the differences in ROE and ROCE between the Covid-19-year 2020 and the pre-covid period are significant, but the respective differences between the post-covid period and 2020 are not.

Overall, like the analysis of sales and profits around the financial crisis in Greece and the global health crisis relating to Covid-19, we can infer that after the end of the Greek financial crisis, the financial performance of the country's audit companies significantly improved compared to their performance in the crisis period. On the other hand, the Covid-19 pandemic does not seem to have affected the financial performance of the companies examined. On the contrary, financial performance is better than that in the pre-covid period.

5.3 Regression Analysis of Financial Performance

Table 8 presents the results of model (1), which tests whether the difference in financial performance between the Big 6 and the smaller firms is statistically significant. In line with our expectations about a negative slope for the model's dummy variable, given that the smaller firms outperform the Big 6, the slopes obtained via the five versions of the model are all negative, with those of ROCE, PBT/Sales and PAT/Sales being statistically significant. These coefficients verify statistically the performance superiority of smaller firms over the Big 6.

Table 8. Regression Analysis of Financial Performance

	(1) ROA	(2) ROE	(3) ROCE	(4) PBT/Sales	(5) PAT/Sales
Panel A: Single-Factor Analysis with a Big 6 Dummy as the Explanatory Variable					
Constant	**0.098***	**0.352***	**0.321***	**0.120***	**0.086***
T-stat	8.645	8.966	7.488	8.479	7.844
Big 6 Dummy	-0.009	-0.035	**-0.101****	**-0.035****	**-0.026****
T-stat	-0.595	-0.488	-2.106	-2.144	-2.034
R^2	0.133	0.136	0.131	0.144	0.134
Panel B: Multifactor Analysis					
Constant	**0.401*****	0.252	0.616	**0.490***	**0.372***
T-stat	4.044	0.716	1.530	4.213	4.094
Size	-0.001	-0.016	-0.003	-0.006	-0.006
T-stat	-0.261	-0.904	-0.100	-1.069	-1.148
Age	-0.014	**-0.140****	**-0.169***	-0.013	-0.007
T-stat	-1.155	-2.212	-3.452	-0.934	-0.718
Debt Ratio	**-0.383***	**0.581***	**0.441****	**-0.306***	**-0.232***
T-stat	-5.190	2.898	2.083	-3.379	-3.605
Debt to Equity Ratio	**0.006*****	-0.020	-0.008	**0.006*****	**0.005*****
T-stat	1.724	-0.815	-0.975	1.724	1.721
Acid-Test Ratio	**-0.024***	**-0.034*****	-0.042	**0.022****	**0.016****

	(1) ROA	(2) ROE	(3) ROCE	(4) PBT/Sales	(5) PAT/Sales
T-stat	-2.773	-1.748	-1.175	2.326	2.198
Cash Ratio	0.023	**0.114****	**0.135*****	-0.018	-0.013
T-stat	0.911	2.146	1.820	-0.615	-0.529
Efficiency	-0.014	-0.081	-0.075	**-0.068***	**-0.051***
T-stat	-1.088	-1.603	-1.347	-4.524	-4.414
R^2	0.355	0.166	0.197	0.470	0.449

Notes: Panel A presents the results of a single-factor panel regression model, via which the performance of the Greek audit firms is regressed on a dummy variable that takes values 1 for a Big 6 company and zero otherwise. Big 6 include Deloitte, PWC, EY, SOL/Crowe, Grant Thornton and KPMG. Panel B presents the results of a multifactor panel regression model, via which the performance of the Greek audit firms is regressed on the natural logarithm of assets (Size), the natural logarithm of age (Age), the debt/assets ratio, the debt/equity ratio, the quick ratio, the cash ratio, and the efficiency ratio. *Statistically significant at 1%; **Statistically significant at 5%; ***Statistically significant at 10%.

The results of the multivariate model (2) are reported in Table 8 too. When it comes to size, all the relevant coefficients are negative but statistically insignificant, showing that there is no significant relationship between the size of audit firms and their financial performance. Moreover, all the slopes for the age factor are negative, but they are significant only for ROE and ROCE. These estimates partially confirm our expectations of a negative correlation between the age of the audit companies in our sample and their financial performance, given that the smaller firms, which perform better than the Big 6 in financial terms, are younger than them.

The slopes of the debt ratio are all statistically significant but not monotonic, as they are positive for ROE and ROCE, but negative for ROA and the ratios of PBT/Sales and PAT/Sales. These results indicate a significant effect of leverage on the financial performance of the Greek audit firms, the sign of which however depends on the metric used to measure financial performance. The estimates of the debt-to-equity ratio are slightly positive and significant for ROA, PBT/Sales and PAT/Sales (at an average of 0.006), and insignificantly negative for ROE and ROCE, showing a slightly positive impact of this type of leverage ratio on financial performance.

When it comes to liquidity, the estimates of the acid-test ratio are significantly negative for ROA and ROE and significantly positive for PBT/Sales and PAT/Sales. At the same time, the slopes of the cash ratio are positive for ROA, ROE and ROCE, but significant only for ROE and ROCE, and insignificantly negative for PBT/Sales and PAT/Sales. Based on the results, we may infer that the liquidity of a company can affect its financial performance, but whether the impact is negative or positive depends on the metric of financial performance used, as well as the metric of liquidity itself.

Finally, the coefficients of the efficiency ratio are significantly negative for PBT/Sales and PAT/Sales and negative but insignificant for ROA, ROE and ROCE. Surprisingly enough, these results show a negative relationship between efficiency and financial performance.

In conclusion, the size of the audit firms under investigation does not affect their financial performance. The age of firms is negatively correlated with their financial performance. This is also the case about the efficiency ratio. On the other hand, the debt-to-equity ratio is positively related to performance. Similarly, the cash ratio is positively related to performance, but only for ROE and ROCE. Finally, the acid-test ratio has a significant impact on the financial performance of Greek audit firms. However, the impact of this ratio is not unambiguous for all the performance variables used in our analysis.

To investigate whether the results of models are affected by any time bias, we run the panel data models with fixed time effects. To do so, we add dummy variables to the model for years 2016 up to 2023.[6] The relevant results are presented in Table 9. When it comes to the impact of audit firms' status on their financial performance, the results of the alternative model resemble those discussed in the previous section. In particular, the five slopes obtained are all negative, with those of ROCE, PBT/Sales and PAT/Sales being significant. These coefficients re-confirm the performance superiority of smaller firms over the Big 6 companies. With respect to the effect of time on performance, the results indicate the lack of such an impact. With just one exception, all time dummies are statistically insignificant.

The results of the multi-factor model in Panel B also resemble the corresponding results in Table 8. The size factor provides no significant estimates. The slopes of age are all negative and significant, establishing a negative relationship between age and financial performance. The coefficients of the debt ratio are statistically positive for ROE and ROCE and significantly negative for ROA and the ratios of PBT/Sales and PAT/Sales. The estimates of the debt-to-equity ratio are slightly positive and significant for ROA, PBT/Sales and PAT/Sales, and insignificantly negative for ROE and ROCE, verifying the slightly positive impact of this ratio on financial performance. The impact of the acid-test ratio is not unanimous among the several metrics of financial performance. On the hand, the results re-confirm the positive relationship of cash ratio with ROE and ROCE. Finally, the coefficients of efficiency are significantly negative for ROE, PBT/Sales and PAT/Sales.

With respect to the time effect on financial performance, the results in Table 9 show a rather weak impact. In fact, only the dummy for the Covid-19 year seems to have a significantly positive relationship with financial performance, at least when ROA, ROCE, and PAT/Sales are the metrics of performance. This finding is in line with the inferences drawn via the analysis of performance around crises in section 5.2.

[6] To avoid collinearity trap, we do not add a dummy variable for year 2025.

6. Conclusion

In this study, we evaluate the financial position and performance of the twenty largest audit firms in Greece over the period 2015-2023, by also discriminating between the financial crisis period and the post-financial crisis period, as well as between the pre-covid, Covid 19, and the post-covid period.

In our analysis, we examine key accounting figures from the balance sheet and income statement, compute major liquidity, leverage, profitability and efficiency ratios, and apply regression analysis, trying to detect factors that can affect financial performance along with the sign of this impact.

Table 9. Regression Analysis of Financial Performance with Time Fixed Effects

	(1) ROA	(2) ROE	(3) ROCE	(4) PBT/Sales	(5) PAT/Sales
Panel A: Single-Factor Analysis with a Big 6 Dummy as the Explanatory Variable					
Constant	**0.086***	**0.433***	**0.402***	**0.118***	**0.078***
T-stat	3.421	4.405	4.349	3.789	3.253
Big 6 Dummy	**-0.010**	**-0.036**	**-0.101*****	**-0.036*****	**-0.027*****
T-stat	-0.543	-0.517	-1.733	-1.699	-1.751
Year 2016					
Dummy	-0.015	-0.130	-0.108	-0.027	-0.015
T-stat	-0.437	-0.958	-0.843	-0.637	-0.450
Year 2017					
Dummy	-0.019	-0.199	-0.175	-0.027	-0.019
T-stat	-0.549	-1.464	-1.372	-0.624	-0.563
Year 2018					
Dummy	-0.025	-0.148	-0.137	-0.026	-0.020
T-stat	-0.725	-1.091	-1.072	-0.611	-0.606
Year 2019					
Dummy	0.006	**-0.243*****	-0.180	-0.008	0.000
T-stat	0.160	-1.784	-1.406	-0.182	-0.008
Year 2020					
Dummy	0.046	0.165	0.128	0.045	0.046
T-stat	1.320	1.210	1.003	1.046	1.371
Year 2021					
Dummy	0.023	-0.081	-0.103	0.021	0.026
T-stat	0.661	-0.599	-0.806	0.486	0.788
Year 2022					
Dummy	0.043	-0.066	-0.093	0.034	0.039
T-stat	1.235	-0.485	-0.730	0.784	1.162
Year 2023					
Dummy	0.053	-0.013	-0.062	0.009	0.016
T-stat	1.472	-0.095	-0.461	0.209	0.471
R^2	0.166	0.172	0.164	0.150	0.163
Panel B: Multifactor Analysis					
Constant	**0.412***	0.273	0.602	**0.514***	**0.385***
T-stat	**4.688**	0.976	1.457	**4.891**	**4.872**
Size	0.004	0.026	0.006	-0.003	-0.003

	(1) ROA	(2) ROE	(3) ROCE	(4) PBT/Sales	(5) PAT/Sales
T-stat	0.988	1.596	0.199	-0.701	-0.731
Age	**-0.026****	**-0.176****	**-0.197***	**-0.025*****	**-0.019*****
T-stat	**-2.345**	**-2.416**	**-3.844**	**-1.951**	**-1.932**
Debt Ratio	**-0.408***	**0.498****	**0.381*****	**-0.336***	**-0.258***
T-stat	**-5.712**	**2.732**	**1.805**	**-3.952**	**-4.370**
Debt to Equity Ratio	**0.005*****	-0.024	-0.011	**0.006*****	**0.004*****
T-stat	**1.703**	-1.111	-1.338	**1.803**	**1.786**
Acid-Test Ratio	**-0.024****	-0.032	-0.040	**0.022****	**0.017****
T-stat	**-2.599**	-1.542	-1.137	**2.370**	**2.341**
Cash Ratio	0.012	**0.082*****	**0.111*****	-0.030	-0.023
T-stat	0.505	**1.758**	**1.700**	-1.096	-1.075
Efficiency	-0.019	**-0.089*****	-0.077	**-0.073***	**-0.055***
T-stat	-1.423	**-1.858**	-1.363	**-4.788**	**-4.726**
Year 2016 Dummy	-0.021	-0.096	-0.070	-0.038	-0.023
T-stat	-0.740	-1.290	-0.597	-1.112	-0.939
Year 2017 Dummy	-0.038	-0.128	-0.091	**-0.063*****	**-0.046*****
T-stat	-1.430	-1.563	-0.767	**-1.945**	**-1.875**
Year 2018 Dummy	-0.025	-0.071	-0.047	-0.027	-0.021
T-stat	-0.957	-0.888	-0.402	-0.747	-0.757
Year 2019 Dummy	-0.011	-0.119	-0.056	-0.037	-0.023
T-stat	-0.482	-1.284	-0.470	-1.370	-1.087
Year 2020 Dummy	**0.052****	0.281	**0.244****	0.044	**0.045*****
T-stat	**2.051**	1.278	**2.031**	1.495	**1.975**
Year 2021 Dummy	0.034	0.040	0.029	0.029	0.033
T-stat	1.410	0.402	0.237	1.088	1.551
Year 2022 Dummy	0.043	0.088	0.072	0.032	**0.037*****
T-stat	1.620	0.894	0.596	1.125	**1.692**
Year 2023 Dummy	**0.061*****	0.167	0.124	0.043	**0.042*****
T-stat	**1.968**	1.393	0.980	1.452	**1.788**
R^2	0.444	0.253	0.257	0.542	0.536

Notes: Panel A presents the results of a panel regression model with time fixed effects (i.e., with dummies for years 2016 up to 2023), via which the performance of the Greek audit firms is regressed on a dummy variable that takes values 1 for a Big 6 company and zero otherwise. Big 6 include Deloitte, PWC, EY, SOL/Crowe, Grant Thornton and KPMG. Panel B presents the results of a multifactor panel regression model with time fixed effects (i.e., with dummies for years 2016 up to 2023), via which the performance of the Greek audit firms is regressed on the natural logarithm of assets (Size), the natural logarithm of age (Age), the debt/assets ratio, the debt/equity ratio, the quick ratio, the cash ratio, and the efficiency ratio. *Statistically significant at 1%; **Statistically significant at 5%; ***Statistically significant at 10%.

The empirical results reveal that that the Greek audit firms examined have high liquidity and, thus, they can easily meet their short-term liabilities. However, this liquidity is financed largely by debt and to a lesser degree by equity. At the same time, the efficiency of the Greek audit companies in using their assets to achieve sales is quite strong. These results are in line with the findings of Belesis (2024), who also reports that the Greek audit firms have strong liquidity and tend to finance their operation through liabilities rather than equity.

By comparing the Big 6 to the smaller companies in the sample, it is shown that the large companies have obviously bigger absolute accounting figures than the small ones. However, the smaller companies are in a better position in terms of liquidity, leverage and equity, when relative magnitudes are considered. On the contrary, the Big 6 are more capable of exploiting their assets to boost their sales than the smaller firms.

Moreover, the comparison of ROA, ROE and ROCE between Big 6 and non-Big 6 firms in the sample indicate that the smaller firms are using their assets, equity and total capital employed more efficiently to make profits. Similar inferences can be drawn from the examination of the profitability ratios (before and after taxes) to sales. To some extent, the superior performance of smaller firms is surprising given the common perception about the dominance of larger audit companies over their smaller rivals, as the former can attract big clients and collect higher fees from them (as reported by several researchers) in comparison to the scale of clients addressing the smaller audit firms.

The assessment of the impact of the Greek financial crisis on the audit sector in Greece indicates that after the end of crisis in 2019, sales, profitability and financial performance are significantly larger than they were during the crisis period of 2015-2019. On the other hand, the pandemic of Covid-19 does not seem to have caused any material effect on the business activity and financial performance of the Greek audit firms examined. The latter seems to contradict results provided by Haddad *et al*. (2023) indicating that the impact of Covid-19 on the income of audit firms was significantly negative. On the contrary, revenue and financial performance has been better in the post-covid period (similar to findings reported by Soepriyanto *et al.* (2025).

Furthermore, the econometric analysis reveals that the age of audit firms and their efficiency ratios are negatively related to their financial performance. The opposite is the case about the relationship of performance with debt-to-equity and cash ratios. Finally, liquidity, as expressed by the acid test ratio, is significant in explaining financial performance. However, the sign of this ratio's impact on performance depends on the metric employed to measure it.

Our results could be the basis for further research on the topic, in which one could consider the effect on the financial performance of audit companies by the legislative initiatives that have been taken in the European Union and Greece over the last years regarding the audit profession. Such initiatives aim at enhancing the quality of the services provided by audit firms, improving governance of the publicly listed (and other) audit clients and protecting the interests of several shareholders. The correlation of the audit companies' financial performance with the environmental, social, and governance (ESG) aspects of their activities could be evaluated too. Research on all of the above could be expanded to the audit sector of other neighboring, or more, distant countries, trying to identify international commonalities in the financial aspect of the audit profession, but also possible differences among countries with comparable or different economic, political, institutional and social characteristics.

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