ANALYSIS MARKET REPORT

State of the Auditing and Reporting Industry

In short The AFM analyses data requested from the auditing industry and then feeds the resulting insights back to the industry. These insights concern developments in the market structure, sustainability, fraud, discontinuity and technology. We have seen a doubling of the market share of private equity parties in non-PIE audit firms. A large majority of non-PIE audit firms have a company subject to the CSRD as an audit client. The number of identified fraud risks is too low in some statutory audits, but we are seeing a positive trend among non-PIE audit firms. Finally, we note that audit firms are recording few cyber incidents.

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28 NOVEMBER 2024

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1. Introduction

1.1 State of the Auditing and Reporting Industry 2024

In this publication, the AFM describes several important developments in the auditing industry in the areas of market structure, sustainability, fraud, discontinuity and technology. In this way, we provide the industry with insights obtained from data reports submitted by audit firms and issuers. For example, our analyses show that the market share of private equity parties in audit firms with a regular licence (hereinafter: non-PIE audit firms) has risen from 11% in 2023 to 21% in 2024. With regard to sustainability, it appears that non-PIE audit firms carry out the statutory audit of 57% of the companies subject to the CSRD. With regard to fraud, we see that the number of statutory audits by non-PIE audit firms with a maximum of one fraud risk has fallen from 13% in 2022 to 7% in 2024. Finally, there has been an increase in the use of advanced data analysis in statutory audits by non-PIE audit firms from 4% in 2022 to 8% in 2024.

The topics in this publication are in line with the AFM Strategy 2023-2026 and focus on the level of the industry (meso level). This focus means that other relevant topics are not covered, such as the ongoing investigations into exam fraud and the results of supervisory investigations by the AFM. This publication is also an important addition to the AFM's annual Trend Monitor, in which we share insights at the macro level. State of the Auditing and Reporting Industry is not an annual overview and does not claim to be complete.

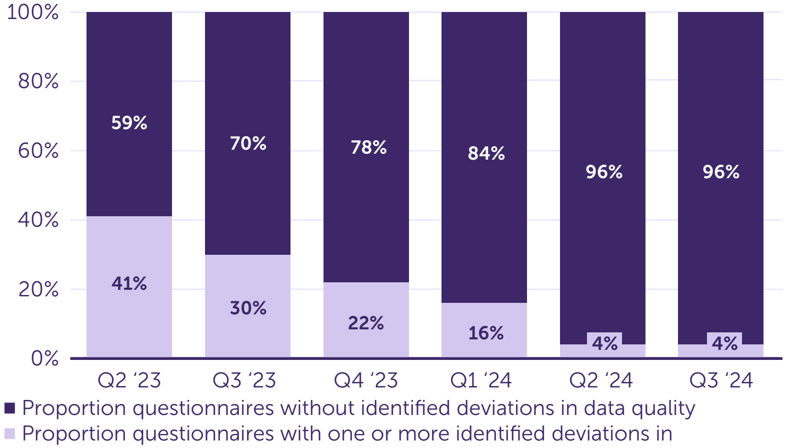
Many of the analyses in this publication are limited to non-PIE audit firms. The data for audit firms licensed to audit public-interest entities (hereinafter: PIE audit firms) can be used for supervision but are not yet comparable with the data from non-PIE audit firms. This is because the provision of data on statutory audits started later in the PIE segment. The emphasis of this report is therefore on non-PIE audit firms.

1.2 Data-driven supervision and data quality

The supervision of audit firms requires a risk-based and data-driven approach. Until 2022, the AFM only supervised PIE audit firms. From 2022 onwards, the AFM has also effectively supervised all – over 200 – non-PIE audit firms. This extension of the supervisory mandate has led to the development of a more risk-based and data-driven supervisory approach due to the large number of supervised institutions. To this end, the AFM, in consultation with representatives of audit firms, has chosen data points for each statutory audit. All audit firms share these data with the AFM for the purpose of identifying, understanding and addressing risks in the supervision.

Both the number of completed questionnaires and the quality of data points on statutory audits are rising. In the course of 2023, non-PIE audit firms started completing questionnaires for each statutory audit. As of mid-September 2024, the AFM has data points from more than 17,000 statutory audits in this segment (over a period of approximately two years). The AFM checks the quality of the data received. Figure 1.1 shows that data quality is improving, as the number of completed questionnaires without identified deviations in data quality increased from 59% in the second quarter of 2023 to 96% in the third quarter of 2024.

Figure 1.1. Percentage of questionnaires from non-PIE audit firms without identified deviations in data quality



Source: Data on statutory audits by non-PIE audit firms.

1.3 Reading guide

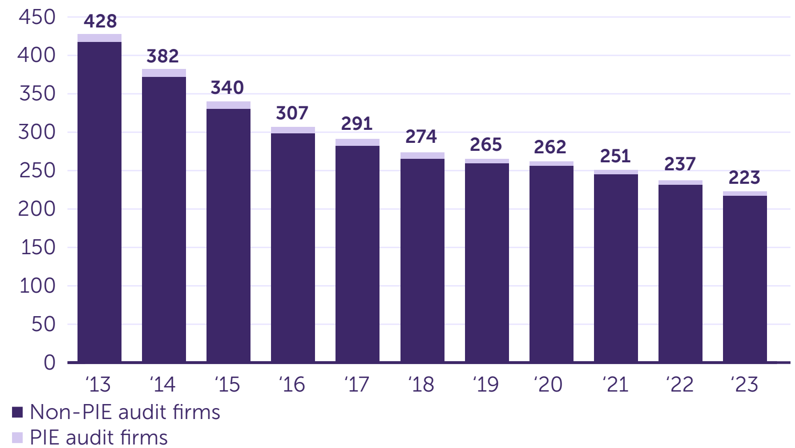
Chapter 2 of this publication describes developments in the market structure, including the number of audit firms, market share, private equity and offshoring. Chapter 3 discusses the societal focus on sustainability, the AFM's supervision of the CSRD and the involvement of non-PIE audit firms in clients subject to the CSRD. Chapter 4 provides insights into fraud risks and discontinuity. Chapter 5 focuses on technology, addressing the topics of audit firms' cyber resilience, use of technology in statutory audits and substantive-oriented versus controls-oriented audit approaches. The appendix contains a justification of the analyses in this publication.

2. Market structure

2.1 Number of audit firms

The number of audit firms licensed to perform statutory audits continues to decline. In 2013, 428 audit firms were licensed to perform statutory audits. Figure 2.1 shows that this number almost halved to 223 in the 2023 financial year. From 2019 to 2020, this decline appeared to stagnate, but since then the number of audit firms has continued to decline. The decline over the past year is mainly the result of mergers and acquisitions (with or without private equity) in the non-PIE audit firms segment. There have been no changes in the PIE audit firms segment in recent years. However, two audit firms from other Member States have recently registered with the AFM to carry out statutory audits in the Netherlands. The AFM has published guidance for audit firms and external auditors that perform procedures for an audit engagement by an audit firm from another Member State.[1] The purpose of this guidance is to clarify the requirements of Dutch law and the AFM's expectations of audit firms from other Member States that apply for registration in the Netherlands.

Figure 2.1. Number of audit firms per year



Source: AFM Monitor 2013-2021; Data on non-PIE and PIE audit firms 2022-2024. Note: In State of the Auditing and Reporting Industry 2023, the 'monitor year' was used for this graph. This year, it has been decided to divide the data by financial year. In addition, a correction was made in the financial year of several audit firms. As a result, small differences can be seen in the number of audit firms in some years.

2.2 Market share

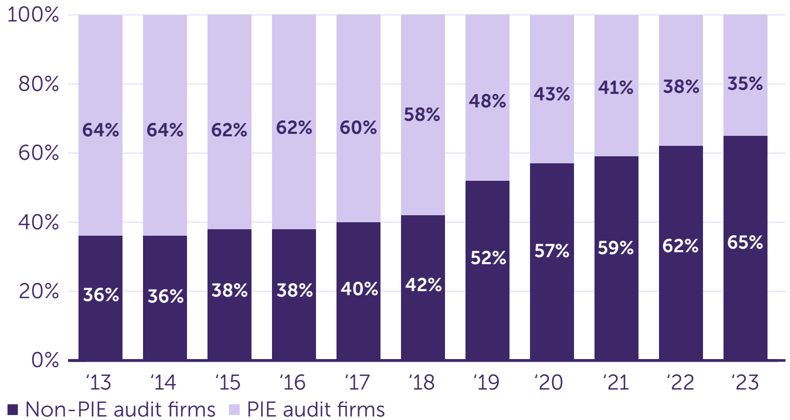
The market share of non-PIE audit firms has grown slightly, in terms of both turnover and the number of statutory audits performed. Of the total of approximately 20,000 regular statutory audits in the 2013 financial year, 36% were carried out by non-PIE audit firms.[2] Figure 2.2 shows that this percentage has increased annually to a market share of 65% in the 2023 financial year. A nuance here is that in 2018-2019 several audit firms surrendered their PIE licences, as a result of which some statutory audits were shifted to non-PIE audit firms. Nevertheless, it can be seen that the market share of non-PIE audit firms continues

1 The guidance can be found at: Audit firms from other EU Member States, under 'bedrijfsmodel en de samenwerking met de externe accountants'.

2 Regular statutory audits are statutory audits of organisations that are not classified as PIEs.

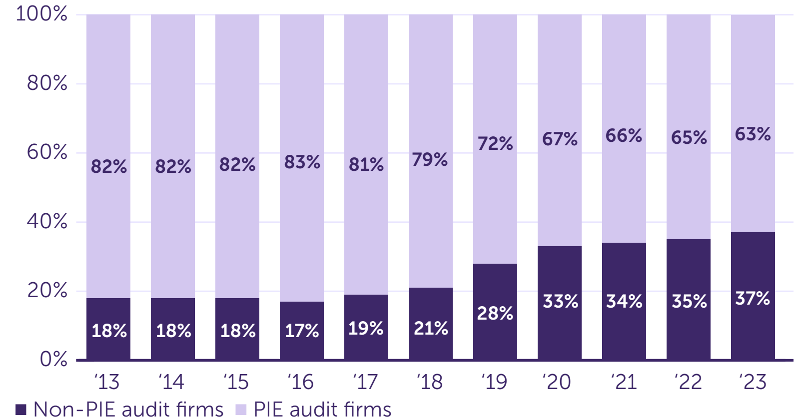
to grow. Figure 2.3 shows that PIE audit firms have the largest market share based on turnover from regular statutory audits. As with the number of regular statutory audits, there has also been a shift in revenue from regular statutory audits to non-PIE audit firms: from 18% in the 2013 financial year to 37% in the 2023 financial year.

Figure 2.2. Market share of non-PIE versus PIE audit firms based on the *number* of regular statutory audits performed



Source: AFM Monitor 2013-2022; Data on non-PIE audit firms 2022-2024; Data on PIE audit firms 2023-2024. Note: Only regular statutory audits are included, but not PIE audits.

Figure 2.3. Market share of non-PIE versus PIE audit firms based on *revenue* from regular statutory audits



Source: AFM Monitor 2013-2022; Data on non-PIE audit firms 2022-2024; Data on PIE audit firms 2023-2024. Note: Only regular statutory audits are included, but not PIE audits.

2.3 Private equity

The auditing industry has characteristics that attract the attention of private equity parties. Stable turnover, attractive profitability and overdue investments in innovation make the auditing industry popular for acquisitions by private equity parties.[3] While consulting turnover is sensitive to economic fluctuations, the repetitive nature of the statutory audit obligation ensures a good and stable turnover stream in the auditing industry.

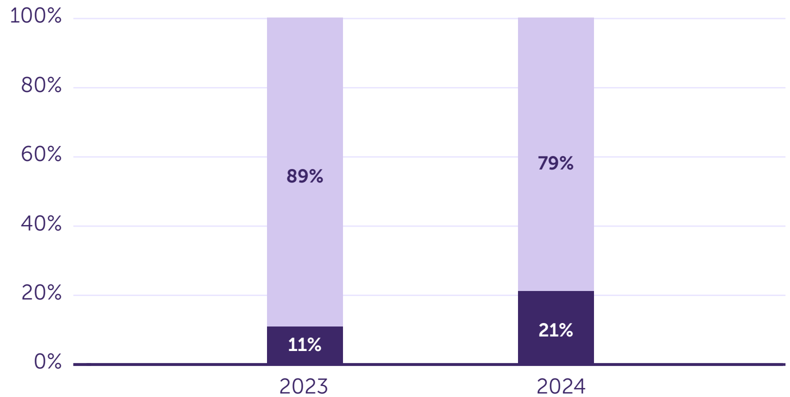
The market share of private equity parties in non-PIE audit firms has increased from 11% to 21%.[4] Figure 4.1 shows that the share of statutory audits by non-PIE audit firms with private equity has increased from 11% in 2023 to 21% in 2024. This market share applies both to the *number* of statutory audits and to the *turnover* from

3 ING (17 July 2023). Investeringsgolf in accountancy en consultancy houdt aan.

4 This trend can be seen both nationally and internationally. For the situation in the United Kingdom, see: Accountant.nl (9 January 2024). Britse accountancy consolideert sneller door private equity . For the situation in America, see: Accountancy Vanmorgen (13 June 2024). Private equity overspoelt top Amerikaanse accountancy.

statutory audits. This concerns 7 private equity parties and 24 non-PIE audit firms.[5] The consolidation in the auditing industry is expected to continue, with private equity parties playing an important role.[6]

Figure 2.4. Share of statutory audits by non-PIE audit firms with private equity



Source: Data on non-PIE audit firms. Note: The share relates to the acquisitions of 24 non-PIE audit firms by 7 private equity parties known to the AFM and announced in the media (situation as at 11 September 2024). The share is calculated on the basis of the number of statutory audits by non-PIE audit firms over the 2022 and 2023 calendar years.

The AFM's risk assessment regarding private equity remains unchanged. In State of the Auditing and Reporting Industry 2023, we concluded that the risks of private equity outweigh the opportunities.[7] The main concern is commercial pressure due to the private equity parties' focus on return and growth, which can be detrimental to the quality of statutory audits. This commercial pressure is exacerbated by the private equity parties' relatively short-term focus of about five to seven years. The UK regulator also recognises the risk of private equity in the auditing industry.[8] By means of intensified supervision and data analysis, the AFM will continue to monitor the risks and developments of private equity.

2.4 Offshoring

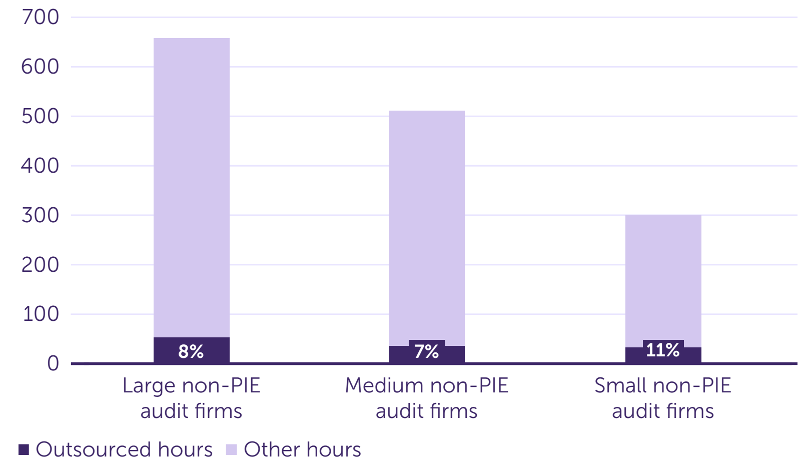
When outsourcing audit work abroad (offshoring), it is important that audit firms continue to take responsibility for ensuring quality. Offshoring is often defined as outsourcing audit work to Shared Service Centres (SSCs). According to the PCAOB, an SSC is "*an associated entity of a firm, set up by a network of accounting firms, that, among other things, supplies those firms with personnel to assist in the performance of audits, and that is not itself another accounting firm*".[9] This primarily involves outsourcing non-complex and routine work to a related party other than an audit firm, as opposed to using specialists for complex estimates, for example. Because audit work is carried out by parties that are not part of the audit firm itself, there is a risk that these parties will not be sufficiently familiar with the quality control system. Offshoring can therefore pose a risk to the quality of the audit.

Scientific research shows that the use of offshoring is increasing. Due to increasing globalisation, it is to be expected that the use of offshoring will increase, and that seems to be the case in practice. American research based on data from the PCAOB shows that all Big-4 firms are increasingly using SSCs in the audit. The use of SSCs increased from 91% of all Big-4 statutory audits in 2013 to 98% in 2018, with the percentage of SSC hours in relation to the total number of audit hours increasing from 4% to 9%. An important reason for the increase in the use of offshoring is that outsourcing is sometimes more profitable than doing audit work yourself.[10]

5 Situation as at 11 September 2024.
6 Schutte & Dirkx (2024). Fusies en overnames. Gebrek aan mensen jaagt consolidatie aan.
7 AFM (2023). Sector in beeld 2023.
8 FRC (2024). Annual review of audit quality.
9 PCAOB (2024, p. 48). 2024-002-Firm and Engagement Metrics (pcaobus.org).
10 Sherwood (2024). Offshore Shared Services Center usage by U.S. Big 4 audit engagement teams.

Non-PIE audit firms outsource activities for a small number of statutory audits. The AFM data do not show whether the work is outsourced within the Netherlands or abroad. In 2% of statutory audits, non-PIE audit firms outsource hours. Outsourcing occurs at both large and small audit firms and there is a wide variation in the number of hours outsourced by audit firms. Of the statutory audits with outsourced hours, an average of 47 hours is outsourced. That amounts to 8% of the total hours spent. Figure 2.5 shows that this is 8% for large, 7% for medium and 11% for small non-PIE audit firms. The percentage of statutory audits in which hours are outsourced is significantly lower than the use of offshoring at the Big-4 firms in the US study, but the percentage of outsourced hours is comparable in the statutory audits with outsourced hours.

Figure 2.5. Average number of hours spent per statutory audit and proportion of hours outsourced



Source: Data on statutory audits by non-PIE audit firms.

3. Sustainability

3.1 Transparency and expectation gap

The Corporate Sustainability Reporting Directive (CSRD) provides more transparency about sustainability for large companies. The purpose of this is to enable users to make informed decisions. In addition, it helps companies gain insight into their own impact, opportunities and risks and determine their direction in the field of sustainability. The CSRD will apply to large issuers as of the 2024 financial year and will then be rolled out further to a broader target group. Directors of companies are responsible for adequately setting up processes and information systems to enable sustainability reporting. It is up to audit firms to provide assurance on these reports, which broadens their range of tasks. Civil society organisations regularly draw attention to the realisation of environmental goals and the safeguarding of human rights. These developments require clarity in the law about the responsibilities of companies, for example in the form of the Corporate Sustainability Due Diligence Directive (CSDDD).

Sustainability reporting by large companies may lead to a new expectation gap. This expectation gap can manifest itself in several ways. On the one hand, civil society organisations and/or citizens may have higher expectations of the reporting companies' sustainability transition than is reflected in the reporting, for example because companies are lowering their targets or turning out to be less sustainable than expected. On the other hand, society may have higher expectations of audit firms than is expressed by means of a conclusion with limited assurance, for example because auditors have carried out less (in-depth) work than users expect from sustainability reporting. A continuous dialogue on sustainability information is necessary to prevent society expecting more in terms of sustainability than companies and auditors can deliver. In addition, it is important that companies and auditors remain critical of their performance with regard to sustainability reporting.

3.2 Monitoring the CSRD

The number of companies required to comply with the CSRD will increase in the coming years from around 95 in the 2024 financial year to more than 3,000 in the 2025 financial year.[11] The first group comprises large issuers that will have to comply from the 2024 financial year. In its 2023 reporting, the AFM notes that many issuers have started reporting in accordance with the CSRD and has already observed various good practices.[12] This target group still has steps to take to report fully and transparently in accordance with the CSRD for 2024. From the 2025 financial year, the regulations will also apply to large companies, more than 50% of which fall under the supervision of non-PIE audit firms. Section 3.3 of this publication specifically discusses these non-PIE audit firms, because it is important that they are well prepared to provide assurance on sustainability reporting due to the large number of companies subject to the CSRD in their client portfolio.

Sustainability reporting is an important priority for the AFM's supervision. The supervision of reporting on sustainability by issuers and the provision of assurance on sustainability reporting by audit firms will constitute an important expansion of the AFM's supervisory mandate in the coming years. By means of publications, the AFM will share the insights it has gained into sustainability reporting and assurance provision with the industry.

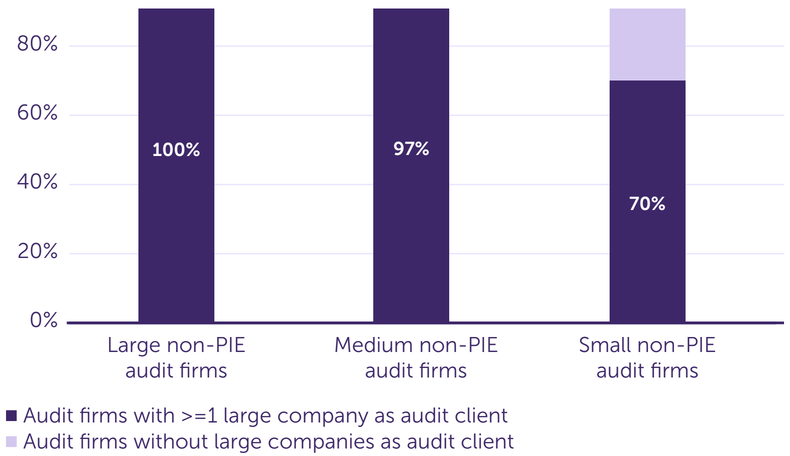
11 This estimate was made on the basis of AFM data for the purpose of supervision of reporting and a research report by KPMG (KPMG, 2024. Onderzoek naar de implementatie van de zes stappen van gepaste zorgvuldigheid).

12 AFM (2024). 10 Waypoints for CSRD – double materiality.

3.3 Non-PIE audit firms and clients subject to the CSRD

A large majority of non-PIE audit firms audit the financial statements of companies subject to the CSRD. Figure 3.1 shows that the share of audit firms that audit at least one large (i.e. CSRD-regulated) company ranges from 70% in the 'small' category to 100% in the 'large' category.[13] From the 2025 financial year, audit firms must provide assurance on these companies' sustainability reports. If audit firms choose to offer this service, they will have to prepare in a timely manner with a quality control system to provide assurance on sustainability reporting. It is important that they have sufficient capacity and expertise to carry out these engagements.

Figure 3.1. Percentage of non-PIE audit firms with at least one CSRD-regulated company as audit client (2023)



Source: Data on statutory audits by non-PIE audit firms. Note: This estimate is based on data where the issue date of the auditor's report was in 2023.

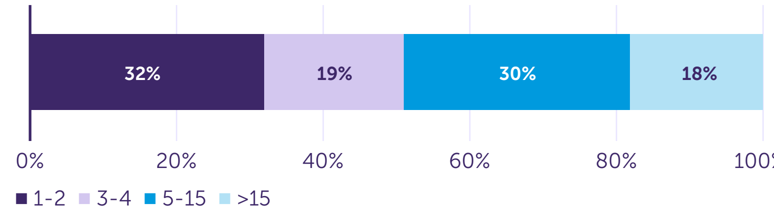
In the case of some companies subject to the CSRD, the statutory audit is performed by small non-PIE audit firms. Companies are subject to the CSRD if they meet two of the three criteria for large companies. According to AFM data on statutory audits performed by non-PIE audit firms in 2023, more than 1,900 companies are subject to the CSRD. Assuming a total of more than 3,000 companies subject to the CSRD, this means that non-PIE audit firms serve 57% of these and PIE audit firms 43%. Figure 3.2 shows that 9% of companies subject to the CSRD have a small non-PIE audit firm as their auditor, compared to a large majority of 63% that have a large non-PIE audit firm.

13 This estimate was made using AFM data on statutory audits by non-PIE audit firms based on the following three criteria: more than €50 million turnover, more than €25 million balance sheet total and more than 250 FTEs. It should be noted that the data on statutory audits are not complete due to growth pathways and that the requirement that companies must meet these criteria for two consecutive years has not been taken into account.

Figure 3.2. Distribution of companies subject to the CSRD across large, medium and small non-PIE audit firms (2023)

Source: Data on statutory audits by non-PIE audit firms. Note: Due to growth pathways and not fully available data, the requirement that the size criteria must apply for two consecutive financial years has not been taken into account. In addition, this estimate was made on the basis of data where the issue date of the auditor's report was in 2023. Exact percentages may therefore differ from this approximation.

Figure 3.3. Distribution of the number of companies subject to the CSRD per non-PIE audit firm (2023)



Source: Data on statutory audits by non-PIE audit firms. Note: This estimate is based on data where the issue date of the auditor's report was in 2023. Due to rounding differences, the percentages do not add up to 100%.

It is essential for non-PIE audit firms to be well prepared to provide assurance on sustainability reporting. Figure 3.3 shows that 51% of non-PIE audit firms audit one, two, three or four companies subject to the CSRD. Of these, 32% audit one or two. Sustainability reporting is a new field for many companies and audit firms.[14] The AFM considers it important that all companies subject to the CSRD can find a CSRD-competent auditor to provide assurance on sustainability reporting. Given the complexity and the specific expertise required, it is important that audit firms prepare well for this new service, for example by investing in education and training, developing a quality control system and/or collaborating with other audit firms. The AFM will continue to monitor developments in this area.

14 A letter from PwC to its major audit clients shows that it is concerned about timely preparation for the implementation of the CSRD by companies (PwC, 2024. Onderwerp: Implementatie CSRD bij uw onderneming). Insufficient preparation may have consequences for the degree of compliance with the CSRD, resulting in possible limitations in the assurance reports for sustainability reporting.

4. Fraud and discontinuity

4.1 Fraud risks

Increased fraud awareness is an important prerequisite for improving the identification of fraud risks. Many companies are insufficiently prepared for fraud, even though there is a reasonable chance that they will encounter it. Research by BDO shows that of the 750 organisations surveyed in the commercial sector, 26% have carried out a fraud risk analysis and 30% are prepared for fraud incidents.[15] Among the 250 public sector organisations surveyed, the figures are 51% and 35% respectively. Nevertheless, research by PwC among 1,296 respondents from 53 countries shows that almost half of companies experience some form of fraud or financial crime.[16] That is why the AFM supports the call of the Dutch *Kwartiermakers toekomst accountancy* (hereinafter: *Kwartiermakers*) to raise more attention and awareness of fraud among external auditors, for example by means of continuing professional education, professional scepticism and a culture aimed at identifying fraud risks.[17] In addition to this call for more fraud awareness, the AFM also supports the *Kwartiermakers*' call to extend the reporting obligation in the auditor's report to the findings regarding fraud.

The public attention paid to fraud risks is positive but may result in the use of standard texts in audit firms' reporting. Paying more attention to fraud can help both companies and audit firms to be more alert to the risks and consequences of fraud, which can limit social damage. However, the *Kwartiermakers*' call for more reporting on fraud may lead to external auditors using the same formulations every year. In addition, these texts may remain too general due to the fear of possible claims and/or reputational risks if specific information turns out to be (partially) incorrect. Research by the NBA does indeed show that there are standard texts on fraud in auditors' reports.[18] Scientific research shows that this practice is also common in the reporting on key audit matters (KAMs),[19] although the coronavirus pandemic marked a slight change in the use of standard KAM texts.[20] Limiting standard texts and specifying fraud risks remain important focus areas for the auditing industry.

The number of fraud risks identified is too low in some statutory audits. Figure 4.1 shows that 11% of statutory audits by non-PIE audit firms and 30% of statutory audits by PIE audit firms identified a maximum of one fraud risk. This creates the impression that in these cases external auditors limit themselves to the mandatory fraud risk of management override of controls or the presumed fraud risk relating to revenue recognition.[21] Research shows that external auditors do not recognise and/or do not sufficiently evaluate obvious fraud risk

15 BDO (2024). Non-compliance-risico's: voorkom schade en schande.

16 PwC (2022). Protecting the perimeter. The rise of external fraud.

17 Kwartiermakers toekomst accountancy (2023). Druk en tegendruk.

18 NBA (2024). Analyse rapportering over fraude in de controleverklaringen 2022.

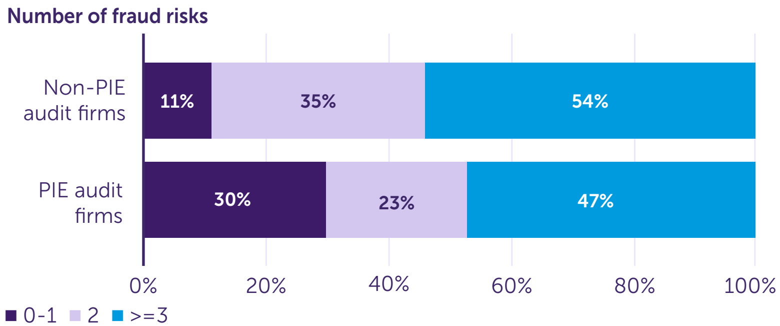
19 Carlé et al. (2023). Text similarity, boilerplates and their determinants in key audit matters disclosure.

20 Küster (2024). The determinants of linguistic features in key audit matters. Empirical evidence from Europe.

21 According to Nadere voorschriften controle- en overige standaarden (NV COS, the Dutch Standards on Auditing) 240, paragraph 8, auditors have the responsibility to consider the potential for management override of controls. According to NV COS 240, paragraph 32, this risk is present in all entities and, due to the unpredictable way in which management override could occur, it is a risk of material misstatement due to fraud and thus a significant risk (mandatory fraud risk). According to NV COS 240, paragraph 27, auditors must start from the presumption that there are risks of fraud in revenue recognition and they must include the reasons for rebutting this presumption in the audit documentation according to NV COS 240, paragraph 48 (presumed fraud risk).

factors.[22] That is why the AFM has called on the auditing industry to remain professionally critical when assessing fraud signals.

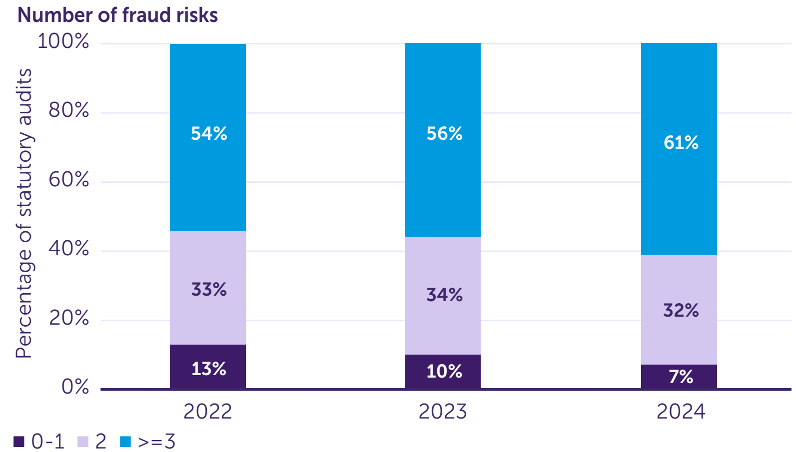
Figure 4.1. Percentage of statutory audits with fraud risks



Source: Data on statutory audits by PIE and non-PIE audit firms. Note: For the sake of comparability, the percentages for both PIE and non-PIE audit firms have been calculated on the basis of data where the issue date of the auditor's report falls within the same period, between 1 July 2022 and 30 June 2023.

A positive development can be seen in the number of recognised fraud risks in the case of non-PIE audit firms. Figure 4.2 shows that the share of statutory audits by non-PIE audit firms with a maximum of one fraud risk has decreased from 13% in 2022 to 7% in 2024. In addition, the share of statutory audits by non-PIE audit firms with at least three fraud risks has increased from 54% to 61% during this period. This means that the trend in the number of identified fraud risks is positive. The AFM will continue to monitor developments regarding the depth of fraud risk analyses.

Figure 4.2. Development of the percentage of statutory audits with fraud risks at non-PIE audit firms



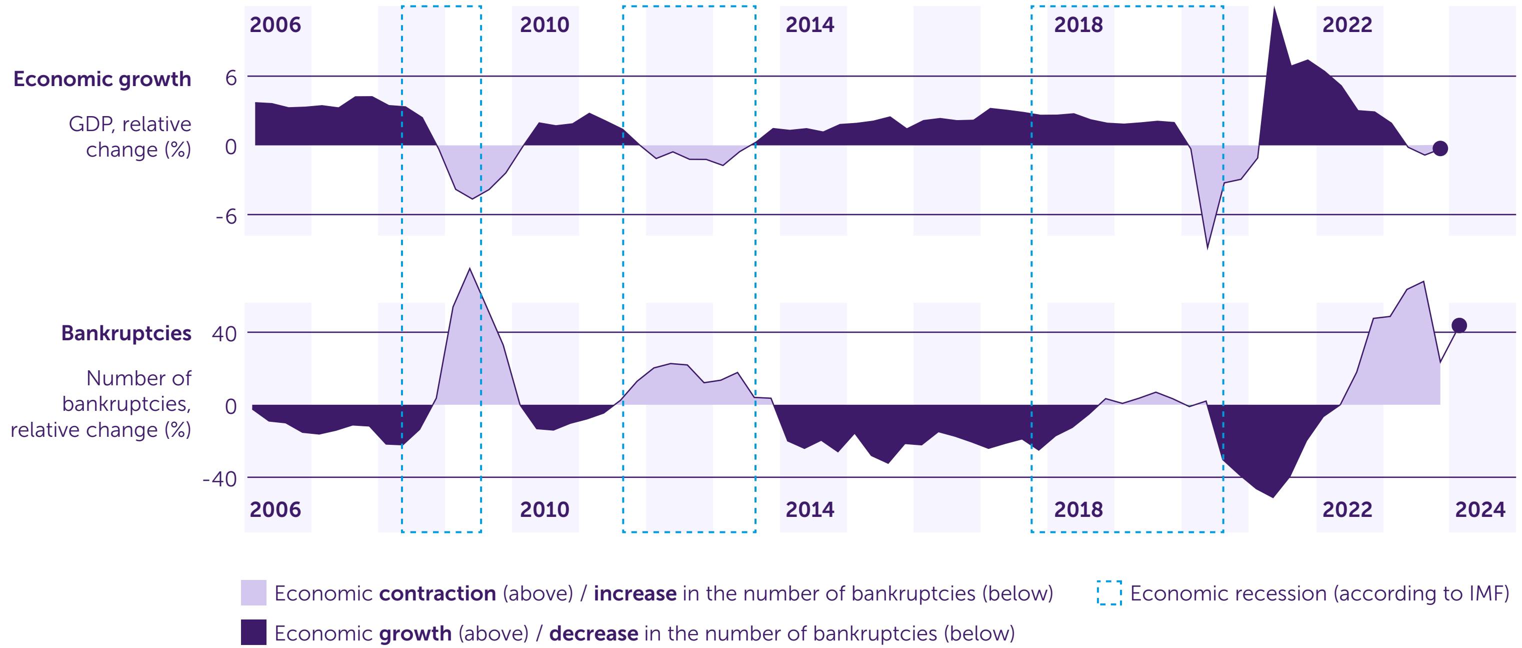
Source: Data on statutory audits by non-PIE audit firms. Note: The statutory audits are assigned to years on the basis of the issue date of the auditor's report. The data for 2023 refer to a full financial year, while the data for 2022 and 2024 refer to a part of the year.

4.2 Discontinuity

The number of corporate bankruptcies is rising sharply. Figure 4.3 shows that the number of bankruptcies in the Netherlands has risen sharply over the past two years. This trend can be explained by weak economic growth, a reduction in coronavirus support and tight financing conditions.[23] The analysis in Figure 4.3 covers all companies, including all smaller companies that are not subject to statutory audit. This trend in the number of bankruptcies is expected to continue, which means auditors are expected to report more often on continuity risks when performing statutory audits.

22 AFM (2023). More attention for fraud risks!
23 AFM (2024). Trend Monitor 2025.

Figure 4.3. Analysis of economic growth and bankruptcies 2006-2024



Source: Trend Monitor 2025.

Bankruptcies are difficult to predict because they are not always accompanied by losses and negative equity. As a result, stakeholders do not always receive clear signals that an organisation is headed for bankruptcy. The consequences for stakeholders and society can be significant, such as loss of investment for investors or non-repayment of tax debts incurred by an organisation during the coronavirus pandemic. It is therefore important that external auditors give timely warning of an impending bankruptcy by including a going concern opinion in the auditor's report.

In the case of some bankruptcies, no going concern opinion is included in the auditor's report. Research among Dutch audit firms in the 2012-2020 period shows that in 37% of cases a going concern opinion was included in the auditor's report in the year prior to bankruptcy.[24] A study in the United Kingdom shows that in the 2010-2022 period Big-4 audit firms included a going concern opinion in the auditor's report prior to bankruptcy in 20% to 38% of cases.[25] Other audit firms included a going concern opinion in 17% of cases.

24 Bosman et al. (2021). Bankruptcy and auditor's reporting in the Netherlands.
25 The Audit Reform Lab (2024). Reward for failure: The paradox of audit partners' record payouts amidst poor audit quality.

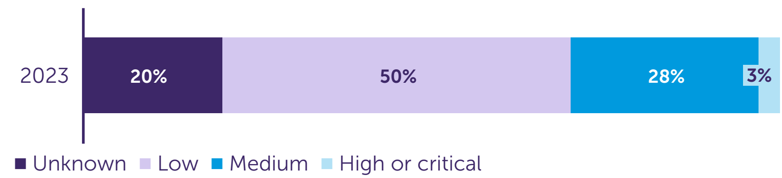
5. Technology

5.1 Cyber resilience of audit firms

The advent of the Digital Operational Resilience Act (DORA) draws additional attention to the cyber resilience of organisations. DORA will come into force on 1 January 2025 and will apply to many different types of businesses, including credit institutions, investment firms and trading venues. DORA is a European regulation that aims to improve financial organisations' IT risk management, thus improving resilience to cyber threats. Although audit firms are currently exempt from DORA, some of their clients will be covered. Audit firms will therefore be affected, at least indirectly, by this new legislation. Because audit firms have access to their clients' data, it will require them to think about their own cyber resilience. Research by the Dutch Data Protection Authority shows that many organisations that have been hit by a cyberattack consider the risk for victims to be low and therefore often wrongly fail to inform them.[26] It is therefore essential that audit firms also have a realistic impression of the IT risks within their own organisations and take appropriate measures.

Audit firms are recording few cyber incidents and often assess their own IT risk as low. PIE audit firms are still recording few cyber incidents: most audit firms report no or only a few cyber incidents when responding to the AFM's request for data. 8% of non-PIE audit firms indicate that they have experienced incidents in important IT systems as a result of a cyber threat. This is often a single incident. The seriousness of the incidents is not apparent from these data. Non-PIE audit firms often assess the IT risk level of their own organisation as 'low' or have no idea about it. Figure 5.1 shows that in the 2023 financial year this was the case of 50% and 20% of audit firms, respectively. 28% assess the IT risk level as 'medium' and 3% as 'high' or 'critical'.

Figure 5.1. IT risk levels of non-PIE audit firms in the 2023 financial year



Source: Data on non-PIE audit firms. Note: Based on non-PIE audit firms' own estimates.

5.2 Use of technology in statutory audits

The use of artificial intelligence (AI) continues to increase. While AI is a broad term, it can be described as the ability of machines to perform tasks that require human cognitive functions, such as thinking, learning and problem-solving.[27] Generative AI applications, such as ChatGPT, are receiving a lot of attention in the media. The McKinsey Global Survey shows an increase in the number of organisations using AI: from 50% in 2019 to 72% in 2024.[28] In the auditing industry, automating routine audit procedures can make the audit profession more attractive and provide a partial solution to capacity shortages. Recent research by the PCAOB shows that American audit firms use generative AI applications for administrative tasks and searching for information, for example.[29] In the Netherlands there are also signs

26 Dutch Data Protection Authority (2024, p. 5). Report Data breaches 2023.

27 Liao (2020). "A Short Introduction to the Ethics of Artificial Intelligence" in: Ethics of Artificial Intelligence. Edited by: S. Matthew Liao, Oxford University Press.

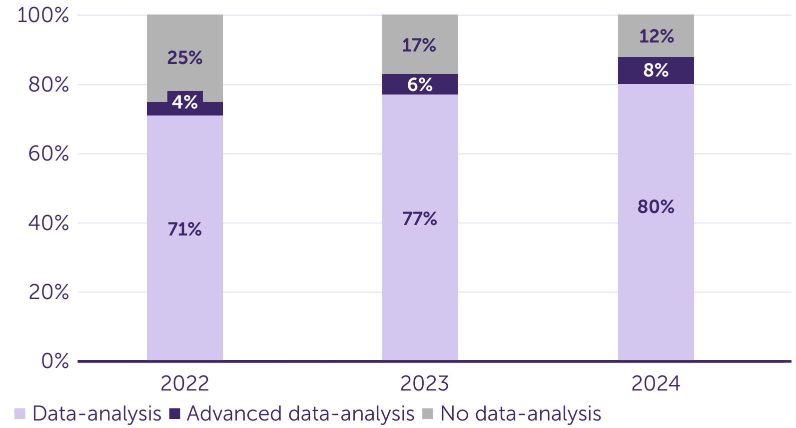
28 This may be largely attributable to the increased popularity of generative AI. Its use by enterprises has risen from 33% in 2023 to 65% in 2024. A recent poll by the employers' association AWVN showed that 40% of Dutch employers are not yet making any use of AI (FD, 11 June 2024. Werkgevers nog huiverig voor inzet AI).

29 PCAOB (2024). Spotlight: Staff Update on Outreach Activities Related to the Integration of Generative Artificial Intelligence in Audits and Financial Reporting.

that audit firms are (or will be) using AI in their statutory audits.[30] In their final report, however, the *Kwartiermakers* pointed out that technological developments and innovations at audit firms are slow.[31] The coming years will show how the use of AI in the auditing industry develops further and what the effect will be on the quality of statutory audits.

Non-PIE audit firms are increasingly using (advanced) data analysis in their statutory audits. Figure 5.2 shows that the use of data analysis has increased from 75% in 2022 to 88% in 2024. Data analysis encompasses all types of analysis techniques that can be used to perform statutory audits.[32] Advanced data analysis includes, for example, applications that collect audit evidence or performing substantive audit work through AI (such as machine learning techniques).[33] In 2022, advanced data analysis was used in 4% of statutory audits by non-PIE audit firms. By 2024, this has risen to 8% (based on data provided up to mid-September 2024). Of the 202 non-PIE audit firms that have used data analysis in recent years, 37% have also used advanced data analysis in at least one statutory audit. Having regard to the increase in the use of AI techniques in other industries, it is expected that these techniques will increasingly be used in the auditing industry as well.

Figure 5.2. Percentage of statutory audits by non-PIE audit firms involving the use of (advanced) data analysis



Source: Data on statutory audits by non-PIE audit firms. Note: Based on more than 11,000 statutory audits with an auditor's report date between 2022 and mid-September 2024.

5.3 Substantive versus controls-oriented audit approach

An increase in data analytics capabilities is driving a more substantive audit approach. A substantive-oriented audit approach consists of tests of details and substantive analytical procedures to detect material misstatements, while a controls-oriented audit approach focuses on controls to evaluate the operating effectiveness of controls.[34] Whereas statutory audit once started with a primarily substantive-oriented approach, since the 1990s more attention has been paid to a controls-oriented approach with insight into processes and controls.[35] The introduction of SOx in 2002 placed greater emphasis on controls and

30 For example, Deloitte announced that from 2025 it would use its own AI program in almost all statutory audits (FD, 5 March 2024. Accountants Deloitte doen volgend jaar alle controles met behulp van AI).

31 Kwartiermakers toekomst accountancy (2023). Druk en tegendruk.

32 See NBA-handreiking 1141 (NBA, 2019, p. 5): "Data analysis is the discovery of patterns, deviations, inconsistencies, and the extraction of other useful information about the object of the research by means of analysis, modelling and visualisation for the purpose of planning or carrying out the assignment".

33 AFM uitvraag wettelijke controles 2024 (v1.4). Aanleverspecificatie.

34 NV COS 330, paragraph 4.

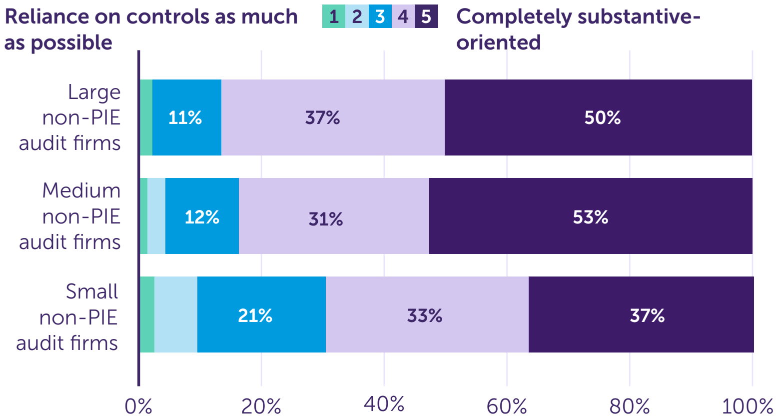
35 Van Toledo & Van Gils (2023). Vijftig jaar IT-audit in de accountantscontrole.

thereby further strengthened and expanded this controls-oriented approach. In recent years, however, the trend has been towards a more substantive-oriented audit approach due to increased data, improved data analytics capabilities and new AI applications.[36]

Non-PIE audit firms perform their statutory audits predominantly in a substantive-oriented manner. Figure 5.3 shows that large non-PIE audit firms perform 50% of their statutory audits in a fully substantive-oriented manner and a further 37% predominantly in a substantive-oriented manner. For medium non-PIE audit firms, the figures are 53% and 31% respectively and for small firms 37% and 33%. These results for non-PIE audit firms are in line with the observed trend towards a more substantive-oriented audit approach in statutory audits.

Controls-oriented audit work is also necessary to determine the reliability and completeness of the data. The growing complexity of audit clients' IT environments requires a more controls-oriented audit approach in which attention is paid to the effective operation of IT controls and other controls. Despite the extensive degree of automation and possibilities for data analysis, it is often not possible to determine the quality of the data used in a purely substantive-oriented manner.

Figure 5.3. Extent to which non-PIE audit firms perform their statutory audits in a controls-oriented versus substantive-oriented manner



Source: Data on statutory audits by non-PIE audit firms.

36 Van Toledo & Van Gils (2023). Vijftig jaar IT-audit in de accountantscontrole.

Appendix: justification of analyses

The analyses in this publication concern the AFM's supervisory domain, which focuses on audit firms and issuers. The AFM does not supervise the entire auditing industry. The analyses are therefore limited to audit firms licensed to perform statutory audits and focus on issuer reporting where possible. In addition, the audit firms under supervision have used growth pathways to provide the data. As a result, the data on statutory audits are not complete.

Many of the analyses in this publication are limited to non-PIE audit firms. The data for PIE audit firms can be used for supervision but are not yet comparable with the data from non-PIE audit firms due to a later start of the provision of data for statutory audits in the PIE segment.

We have broken down some of the analyses in this publication on the basis of the size of the non-PIE audit firms (large, medium and small). The primary starting point for this breakdown by category is the turnover from statutory audits, with the number of statutory audits also being taken into account in the case of the 'large' category. Statutory audit firms in the 'large' category have a turnover of more than €3 million from statutory audits or perform more than 150 statutory audits per year. In the 'medium' category, the turnover from statutory audits is between €3 million and €750,000. The 'small' category has a turnover of less than €750,000 from statutory audits.

Charts in this publication have some general limitations. The analyses relate to the entire period in which the AFM requests data, unless otherwise stated. We used a cut-off date of mid-September 2024, so data supplied later are not included in the analyses. In addition, due to rounding differences, the percentages do not always add up to 100%.