“The need for professional skepticism in an audit cannot be overemphasized” (Prof. Arnold Schilder, IAASB Chairman, 2012).

1 Why is this research important and how does it contribute to practice?

Regulators and standard setters emphasize professional skepticism as a key input to audit quality (e.g., AFM, 2014; PCAOB, 2015; IFIAR, 2015; IAASB, 2015). Indeed, a global recurring theme in audit inspection findings is instances in which auditors did not appropriately apply professional skepticism in their judgments and actions (IAASB, 2015). For example, IFIAR concluded from its 2014 Survey of Inspection Findings that: “A factor underlying many audit deficiencies is insufficient exercise of professional skepticism during performance of the audit” (IFIAR, 2015, p. 3). Hence, “IFIAR has suggested that enhanced professional skepticism by auditors will contribute significantly to improve the quality of the audit and that firms should prioritize efforts in this area” (IAASB, 2015, p. 12).

While the importance of professional skepticism is undisputed, our understanding of the consequences and drivers of professional skepticism is limited. Hence, the main idea of the Foundation for Auditing Research (FAR) research project is to broaden our understanding of the causes and consequences of professional skepticism. Specifically, we aim to provide insight into (a) the nature of professional skepticism (i.e. to what extent do individual characteristics such as personality and experience and situational characteristics such as various organizational conditions, tone at the top and time budget pressure matter); (b) the extent to which professional skepticism is a team-level factor (i.e. is optimizing professional skepticism a matter of putting the most skeptical people in the same audit team or not); and (c) the (intended and perhaps unintended) consequences of professional skepticism (i.e. is professional skepticism effective and efficient in terms of audit quality). The outcomes of this research project are expected to be of interest not only for academics but should also be informative for audit firms as well as regulators and standard setters. For example, the results of this project might help audit firms in selecting and training their people, in the composition of their engagement teams, and the design and control of their organizational conditions (e.g. evaluation and compensation).

2 Introduction of the research question

Professional skepticism is definitely not a new theme, but it has rapidly increased in importance over the past decade(s). Reference to the concept of professional skepticism before the 1990s is close to non-existent. The first reference in US auditing standards to the concept of professional skepticism dates from the late 1980s. During the 1990s there was increased attention for professional skepticism both by regulators and standard setters (e.g. GAO, 1996; AICPA, 1997 (SAS No. 82); IAASB, 1998 (ISA 240)) as well as by academics (e.g. McMillan & White, 1993; Shaub, 1996), but professional skepticism only started to get real attention after the turn of the century (due to the unraveling of a series of high-profile accounting scandals including Enron and WorldCom); within important practitioner journals like CPA Journal and Journal of Accountancy professional skepticism got linked to audit failures (Carmichael & Craig, 1996), SEC enforcement actions (Beasley et al., 2001), and malpractice claims against auditors (Anderson & Wolfe, 2002). Between 2000 and 2010, academics increased their focus on pro-
fessional skepticism (e.g. Nelson, 2009; Rennie et al., 2010; Hurtt, 2010). Only in more recent years, however, professional skepticism became the trending topic that it is today. After the financial crisis, regulators and standard setters throughout the world devoted significant attention to the issue of professional skepticism. For example, in June 2010 the Financial Services Authority (FSA) and the Financial Reporting Council (FRC) issued a discussion paper which questions whether the auditor has always been sufficiently skeptical. In December 2012, the PCAOB issued a staff audit practice alert on professional skepticism. In December 2015, the IAASB solicited comments on their project Enhancing Audit Quality in the Public Interest: A Focus on Professional Skepticism, Quality Control and Group Audits. This increased attention to professional skepticism by practitioners is also reflected in the academic attention devoted to the subject: more than half of the research (62%) ever published on professional skepticism was published between 2013 and today (only 4 studies were published before 2000, and 6 studies have already been published in 2017).

3 What does academic literature tell us

Despite its alleged importance and popularity both among academics and practitioners, the concept of professional skepticism is in fact not well understood. Standard setters typically define professional skepticism as an attitude that includes a questioning mind and a critical assessment of audit evidence (ISA 200; AS 1015). Many academics view professional skepticism as an attitude (i.e. as a state) (e.g. Shaub, 1996; Nolder & Kadous, 2017; Robinson et al., 2017). However, academics have also defined professional skepticism in terms of (relative) stable differences between individuals (i.e. as a trait) (e.g. Hurtt, 2010; Quadackers et al., 2014). Importantly, professional skepticism is an important input to auditors’ judgment and decision-making and is thought to be of value because it enhances audit quality (e.g. Nelson, 2009; IAASB, 2015). Hence, professional skepticism should be apparent from the behavior displayed by the auditor. For example, if an auditor maintains professional skepticism throughout the audit, this should be reflected in “a heightened assessment of the risk that an assertion is incorrect, conditional on the information available to the auditor” (Nelson, 2009, p. 1). As such, professional skepticism could be related to, for example, increased fraud detection, lower levels of earnings management, lower materiality levels, more frequent audit adjustments, less reliance on management explanations and evidence.

3.1 Professional skepticism as a trait

As indicated above, research on professional skepticism is relative recent, but has seen a rapid expansion over the last few years. Most of this research has tended to treat professional skepticism as a trait. Traits refer to individual characteristics which are generally unaffected by the environment and consequently relatively stable. As a trait, professional skepticism can be understood as “the propensity of an individual to defer concluding until the evidence provides sufficient support for one alternative/explanation over others” (Hurtt, 2010, p. 151). If professional skepticism is a trait, this means that within every individual, there is some baseline level of professional skepticism that the individual is willing to extend to nearly all those situations/engagements in which the individual interacts.

In this context, some authors also understand professional skepticism as the opposite of trust (Shaub, 1996), being the propensity to trust (nearly all) those with whom one interacts and a general tendency to make positive attributions about others’ intentions (Rotter, 1954, 1967).

Drawing on this conceptualization of professional skepticism as a trait, measured by the Professional Skepticism (PS) Scale developed by Hurtt (2010), Hurtt et al. (2008) experimentally find that auditors who score high on the PS Scale detect more contradictions in working papers and generate more alternative explanations for management assertions. Similarly, Quadackers et al. (2014), using the inverse of trust to measure professional skepticism, show that less trusting auditors are more likely to arrive at skeptical judgments in an audit task. This finding mirrors earlier work in the field which found that less trusting auditors pay more attention to instances of aggressive financial reporting in financial statements and, as a result, are more likely to arrive at judgments of intentional misstatement (Rose, 2007).

Besides drawing on psychometric measures such as the PS Scale developed by Hurtt (2010) or the Interpersonal Trust Scale developed by Rotter (1967), researchers have investigated the effect of professional skepticism by investigating how management reacts to changes in auditor behavior that are indicative of an increase in auditor skepticism such as a change in audit procedures. For example, Chen et al. (2012) show experimentally that managers expect less earnings management to occur if they are made aware of the fact that auditors changed the nature of evidence collected toward more probative evidence. Collectively, these studies suggest that professional skepticism, whether operationalized as a trait or inferred from skeptical actions, has consistently been linked with beneficial audit outcomes such as deterring earnings management on part of the client or more skeptical judgments and action on part of the auditors.

3.2 Professional skepticism as a state

In addition to being a trait, professional skepticism
can also be understood as an emergent state (Grohnert et al. 2017; Nolder & Kadous, 2017; Robinson et al., 2017). Emergent states refer to cognitive, motivational, and affective states that are dynamic and vary as a function of situational characteristics as well as inputs, processes, and outcomes (Marks et al., 2001). If professional skepticism is a state, this means that professional skepticism can be understood primarily as an attitude which can develop over time (or very quickly) based on situational characteristics and need. This also implies that professional skepticism is not just an input, but could be a proximal outcome as well depending on the context (see Marks et al., 2001). For example, professional skepticism may be viewed as an input to fraud risk assessment, but may also be viewed as a proximal outcome of the interaction a junior team member has with the audit partner (e.g. during fraud brainstorming). Most importantly, this means that professional skepticism can be enhanced or impeded due to specific interactions (e.g. due to interaction with an audit partner that heavily stresses the importance of professional skepticism) or due to specific organizational conditions (e.g. due to severe time budget pressure).

In the existing literature, this aspect of professional skepticism as an emerging state is covered by studies that either investigate how situational characteristics located at the level of the audit/client firm or auditor characteristics, such as experience and expertise, enable or constrain the exercise of professional skepticism. Regarding situational characteristics, there is a relatively strong consensus in the empirical literature that they can constrain or facilitate an auditor’s exercise of professional skepticism. These studies can be broadly classified into those investigating situational characteristics at the level of the audit firm or audit team, and those considering factors in the client environment. Regarding the internal environment of the audit firm, Nelson et al. (2016) show that auditors who perceive their team leader to be more team-oriented are more likely to speak up and raise audit issues (i.e. engage in skeptical actions). Similarly, it has been shown that auditors whose audit partner stresses the importance of professional skepticism are more efficient and effective in the identification of relevant fraud risk s as well as in their choice of relevant audit procedures (Carpenter & Reimers, 2013). Partners can further trigger an increase in professional skepticism by highlighting that client management believes there to be a low risk of fraud (Harding & Trotman, 2017). With regard to the external client environment, prior research has found that auditors confronted with either a weak control environment or overly optimistic management assertions arrive at more skeptical judgments and engage in more skeptical actions (Quadackers et al., 2009; 2014; Feng & Li, 2014). In contrast to the relatively consistent findings regarding situational characteristics at the audit team and client level, findings related to the role of auditor experience and expertise on the exercise of professional skepticism are mixed. On the one hand, studies such as Rose (2007) find a direct, positive effect of (fraud) experience on the likelihood of arriving at a skeptical judgment regarding a potential misstatement. On the other hand, Grenier (2017) finds that non-industry specialist auditors are, in general, more skeptical than their specialist colleagues, calling into question the value of industry training and specialization from an audit quality perspective.

3.3 Interaction between trait and state

A potential reconciliation of these contradictory findings lies in the detailed study of the interactions between trait professional skepticism and the situational characteristics that promote professional skepticism as an emergent state (e.g. Grohnert et al., 2017). For example, Quadackers et al. (2014) find that auditors exhibiting a low level of dispositional trust will issue more skeptical judgments if the client has a weak internal control system compared to an auditor exhibiting high levels of dispositional trust. Consequently, it seems that auditors exhibiting a high level of trait professional skepticism are more likely to be triggered by situational characteristics that influence professional skepticism as an emergent state. There is thus considerable value in investigating how trait professional skepticism can potentially be impeded or facilitated by situational characteristics that are associated with triggering professional skepticism as an emergent state. Therefore, researchers have concluded that professional skepticism has both a trait and a state component. Some people might be “professional skeptic” (trait) (i.e. have an inherent tendency towards professional skepticism), but nevertheless on a specific occasion be “convinced” (state) easily by the evidence presented by management (i.e. be in a state of believing), which makes them “fail to demand” (behavior) more proof for a certain assertion. Overall, research indicates that traits interact with different factors to create many emotional states, and the temporary ways of being or feeling affect our behavior (modelled in Fig. 1). This implies that (a) different people will react differently (i.e. behave differently) to different situational cues, but also that (b) situations will have a different effect on behavior depending on the characteristics (e.g. traits) of people.

4 Key message(s)

The literature on professional skepticism has rapidly been increasing over the past few years. Despite some excellent theoretical work in this area (Hurtt, 2010; Robinson et al., 2017; Nolder & Kadous, 2017)
and the publication of a number of review studies on the subject matter (Nelson, 2009; Hurtt et al., 2013), our understanding of professional skepticism remains limited and underdeveloped due to the lack of prior research to simultaneously consider the impact of both personal and situational characteristics and the intermediating role of psychological states. Although prior research suggests that professional skepticism should be understood as both a trait and state concept (i.e. professional skepticism is the outcome of both stable, enduring features as of contingent factors), the relative importance of personal and situational characteristics remains unknown. Additionally, we have no systematic evidence on the importance of various situational characteristics that allegedly could threaten the maintenance of professional skepticism during an audit (e.g. various organizational and environmental conditions such as tone at the top, commercialization, quality control procedures, promotion and compensation processes, client importance). We also lack a thorough understanding of the individual antecedents of professional skepticism (e.g. is professional skepticism as a trait associated with certain socio-demographic factors, experience, motivation, or personality). Studies on professional skepticism so far have also focused solely on individual auditors, ignoring the fact that audits are performed by teams of individuals. It, therefore, remains unknown to which extent different individuals within the audit team affect professional skepticism on the overall audit engagement. Hence, we currently do not know whether it is necessary for all members to maintain professional skepticism throughout an audit to ensure high audit quality. Finally, the consequences of professional skepticism on various audit processes and audit outcomes are badly understood. It is assumed that professional skepticism fosters audit quality, but it is unclear which elements of the audit process are affected (the most) by professional skepticism. For example, does professional skepticism affect any of the following elements: materiality levels, audit planning, fraud brainstorming, risk identification, risk assessment, audit testing, the evaluation of identified material misstatements, the audit reporting process? Additionally, we do not know whether there exists an optimal level of professional skepticism, that is how professional skepticism affects audit efficiency and not just effectiveness. The objective of our FAR project is to advance our understanding of these important questions.

In particular, Fig. 2 reflects the following three research questions that we will address:

1. What is the profile of individual auditors’ professional skepticism across ranks (partner, supervisor, other members of the team), and collectively as a team? Further, what is the association between team leadership skepticism profiles and subordinate profiles?

On the basis of research question 1, we aim to provide evidence on the individual antecedents of professional skepticism and on the extent to which different individuals within the audit team affect professional skepticism on the overall audit engagement.

2. What is the association between the professional skepticism profile of the partner and other team members on the audit process and outcomes (e.g., audit pricing, audit planning and production, and audit quality)?

The purpose of research question 2 is to advance our understanding of the relationship between professional skepticism and audit processes and outcomes. We aim to provide evidence on which elements of the audit process are affected (the most) by professional skepticism and on the necessity for all members to maintain professional skepticism throughout an audit to ensure high audit quality.

3. What is the impact of organizational conditions on the relationship between professional skepticism (of the partner and other team members) and the audit process and outcomes?

On the basis of research question 3, we aim to provide evidence on the relative importance of various personal and situational characteristics. Further, the purpose is to advance our understanding of the relationship between the different elements of the audit process and professional skeptical behavior.

Possible implications for practice

By addressing these research questions, our FAR project will help audit firms to understand variation in the professional skepticism profiles across partners, super-
Audit firm organizational conditions

1 Professional skepticism profile partner

Professional skepticism profile supervisor

Professional skepticism profile other audit team members

2 Audit process and outcomes

3 visors, and other engagement team members within the firm, across offices, and across firms; similarities or differences between team leadership skepticism profiles versus subordinate profiles. Furthermore, it will provide insights to audit firms on the role of the professional skepticism profile of the partner and other team members on audit processes and quality-related outcomes. Finally, it will provide insights on organizational conditions that may help the audit firm to improve audit processes and quality. Consequently, the results of this project might help audit firms in selecting and training their people, in the composition of their engagement teams, and the design and control of their organizational conditions (e.g. evaluation and compensation).

Fig. 2 Outline FAR Project

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Notes

According to a study by Beasley et al. (2013), insufficient levels of professional skepticism were amongst the top reasons for SEC sanctions against auditors over the period 1998–2010 related to instances of alleged fraudulent financial reporting by US public companies (cited in 49 of the 81 cases).

SAS No. 53 (The Auditor’s Responsibility to Detect and Report Errors and Irregularities, 1988)

Although not the focus of this paper, a lot of discussion on professional skepticism focuses on the question whether professional skepticism needs to be understood from a “neutral” or a “presumptive doubt” perspective. The neutral perspective is most in line with current audit practice and standards (Aschauer et al., 2017) and implies that the auditor assumes that management is neither honest nor dishonest, but rather keeps in mind that fraud (or errors) can be present. Conversely, the presumptive doubt perspective assumes some dishonesty unless data indicate otherwise (e.g. Bell et al., 2005; Nelson, 2009; Shaub, 1996). Under the latter perspective, professional skepticism is the opposite of trust.

Regulators and standard setters as well as the popular press have claimed that professional skepticism could be affected by a diverse set of organizational conditions and other situational characteristics such as a firm’s quality control systems (including the tone at the top, performance, promotion, and compensation processes), workload and time budget pressures, incentives to maintain client relationships and avoid conflicts with management, identification with the client and trust in management, and the nature and volume of non-audit services (e.g. Richards, 2016; PCAOB, 2012; FRC, 2012). There exists a reasonable amount of research on the impact of organizational conditions and environmental factors on various aspects of the audit review process.

Kris Hardies is associate-professor at the department of Accounting and Finance at the University of Antwerp.
Sanne Janssen is PhD student at the department of Accounting and Finance at the University of Antwerp.
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“Do we really know what professional skepticism is?” (Kris Hardies)

Assistant-Professor Hardies started by extending an invitation to the audience to share their insights from practice and to come up with suggestions. “We are still setting up the data collection, so we can still adjust the research design.”

The topic whether professional skepticism needs to be understood from a “neutral” or a “presumptive doubt” perspective really triggered the audience. “Can’t you be neutral to the client and doubtful towards the evidence?”, one attendee asks, “are they really mutually exclusive in an audit?”. According to Hardies, the two perspectives have not been discussed together in prior studies. It is always about one or the other perspective. “Maybe you can. We need to think about it.” Hardies replies. Another conference attendee adds: “We do not say that we are either neutral or skeptical, but we talk about an enhanced professional skeptical situation”. A different member of the audience poses that the starting point of an audit is always data collection in line with the standards and therefore it is a neutral process. Hardies agrees that auditing standards are more in line with the neutrality perspective, but an important question is what will happen next after the relevant data has been gathered? “How are you going to respond? Neutral or more skeptical?” Egbert Eeftink, KPMG assurance lead and FAR board member shares this view in his closing remarks: “We cannot be fully neutral as we all operate from our own personal model of the world. And always working from a mindset of presumptive doubt impairs our ability to build reasonable relations with client personnel”.

Personal and situational characteristics are both important for professional skepticism. Hardies emulates: “Some people might be more skeptical from a personality point of view, but in a certain situation they might feel that there is less need to be skeptical. Then they demand less evidence, so they show less professional skeptical behavior”. However, it is interesting to see how these two variables interact. What is the impact of organizational conditions and other situational characteristics, like the tone at the top, performance management systems and organizational culture? Hardies answers: “Obviously there are many different things that could influence whether or not someone shows professional skeptical behavior”. The discussion on situational characteristics reminds one of the conference attendees of the terms: subjective probability and the availability of a heuristic technique. It is not only the facts that influence your perception of a certain risk. A recent experience, for instance, can inflate your estimation of that risk. Since a skeptical auditor is often the bearer of bad news, that person needs to be courageous to speak out. Hence, “courage seems, to me, to be an important personal characteristic”. Eeftink also touches upon the courage-part of professional skepticism in his closing remarks: “Professional skepticism requires courage. It is not only about having a questioning mind and being able to find errors. It is also about the competence to address such issues and to escalate if necessary”.

According to Hardies moral courage is an important characteristic of professional skepticism. Moral courage is a trait, which encourages auditors to take skeptical actions based on their judgements. The Professional Moral Courage Scale (Sekerka et al., 2009) will be used to measure skepticism traits in the FAR project.

Reference