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Audit risk and corporate governance: Italian auditors' perception after the global financial crisis

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This paper aims at analysing the most relevant factors for auditors when they estimate audit risk of their client company, and charge the client for it. We did so, by asking partners of audit firms to rate their agreement on the relevance of a set of audit risk factors drawn from the literature. In order to investigate further, we analysed results after the 2007-2008 financial crisis, for new client firms. We ended up with a dynamic analysis of the factors auditors pay attention to when auditing a company's financial statement, by including the effect of a financial crisis in the auditing model. Therefore, this paper contributes to the auditing and corporate governance literature, by identifying those factors such as, among others, sector, effectiveness of internal control procedures and auditor's experience, which are considered as relevant in assessing the components of audit risk, as well as by highlighting the role of corporate governance as perceived by auditors in the estimation of the audit risk in the client-acceptance decision.

Key words: Corporate governance, auditors, audit firms, audit risk, global financial crisis.

INTRODUCTION

The capability of accounting and financial reports to provide the board and stakeholders at large with reliable information to make effective decisions, coupled with risk-related variables, especially after the latest financial crisis, has been questioned (Magnan and Markarian 2011). The analysis of the audit profession within its context has received some attention, after the 2007-2008 financial crisis (Humphrey et al., 2009). The auditing market is not a local and national one any longer (Humphrey et al., 2009), therefore any regulatory effort aimed at controlling the national auditing practice might result in limited, if any, improvements in the quality of the audited accounting information (Humphrey et al., 2011). As a matter of fact, national auditing standard setters rely

more and more on international standards when they issue auditing principles (Consiglio Nazionale dei Dottori Commercialisti e degli Esperti Contabili, 2015). However, some regulatory requirements and some contingent variables might have affected the focus of the accounting and auditing profession before and after the 2007-2008 financial crisis.

Some recent literature addressed criticisms to the effectiveness of accounting regulations in providing a tool for the disclosure of high quality accounting information, at the time of the 2007-2008 financial crisis (Sikka, 2015a; Persakis and Iatridis, 2016). It is generally agreed that accounting and auditing principles are aimed at supporting the credibility and the quality of the financial

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statements, and thus to foster trust in financial markets (Kohler, 2013). One of the evidences of that regards the “silence” of the auditors over the financial years immediately before the 2007-2008 financial crisis (Sikka, 2009), which is related to the issue of unqualified audit opinion with regard to companies, that went bankrupt in the following financial year, producing fraudulent disclosures also. On a similar vein, scholars found that the likelihood to issue a going-concern modified opinion for financially distressed clients increased after the global financial crisis (Geiger et al., 2013). However, the modified opinion due to going concern uncertainty is primarily issued because of previous year opinion or financial status, rather than earnings management reasons (Tsipouridou and Spathis, 2014). Therefore, the *trust* on the audit quality by both institutional and private investors, as well as by governments has flawed (Holm and Zaman, 2012). Indeed, some governments have been questioned on whether they are effectively taking actions to prevent future financial crises (Sikka, 2015b). The global financial crisis and some recent financial collapses of listed firms, such as Enron and Parmalat reduced stakeholders and investors’ trust in the reliability of the audit opinion. Even though auditors should perform their activity in a strong independent position with regard to the client firm, there is opposite evidence. Indeed, some scholars found that larger client firms receive more unqualified audit opinion, than smaller ones (Carcello et al., 2009). This might be due to the fact that auditors do not want to lose their major clients (Dogui et al., 2014). Moreover, the role of risk management itself after the global financial crisis has undergone a severe criticism (Huber and Scheytt, 2013). As a matter of fact, some authors reported on the consequence of modern risk management, that is a “risk management of nothing” (Power, 2009: 7), which resulted in a failure of mechanisms actually aimed at preventing the worst consequences of risks. In order to overcome shortcomings in the previous audit models, both regulators and audit firms tried and redesigned the audit model and the audit procedure. For instance, the Financial Reporting Council issued the Audit Quality Framework (Financial Reporting Council, 2008), which investigates factors that affect the quality of the audit profession. Some of them are under the auditor’s responsibilities, whereas some others are not. On the other hand, PriceWaterhouseCoopers (Big-4 audit firm) published a procedure to assess third-party risks (PriceWaterhouseCoopers, 2016). Among those that are outside the control of auditors, there is the strength of the company’s corporate governance. On the other hand, after the global financial crisis, auditors commit more effort in assessing their clients’ audit risk, compared to previous years (Xu et al., 2013). Similarly, auditors are more willing to rely on internal audit work in a continuous audit environment compared to a traditional one (Malaescu and Sutton, 2014). When introducing

mandatory rotation policies, audit firms commit more effort with the new client compared to clients already served (Kwon et al., 2014). Even though some scholars found better quality of audited financial statements after audit firm rotation (DeFond and Subramanyam, 1998; Myers et al., 2003; Chen et al., 2008), others pointed out that this mandatory requirement does not necessarily lead to better quality in terms of audited financial information (Davidson et al., 2006; Cameran et al., 2013). Less tenured auditors are less knowledgeable of their clients’ risk; therefore they may want to rely on other than mandatory accounting information. What is still unclear in the literature is the set of information and client’s features the auditor wish to include into their risk assessment model when assessing new clients’ audit risk after the global financial crisis. Moreover, after the global financial crisis some scholars analysed the audit risk and found that there is an increase in the client’s business risk without analysing which factor is riskier than others (Xu et al., 2013). Furthermore, the topic of corporate governance has been developed especially after failures of firms depending on the features of corporate governance. Some scholars questioned whether some characteristics of corporate governance could have some effects on the entire process of audit and in particular of the quality of this procedure (Cohen et al., 2002). Despite these considerations, to our best knowledge, few scholars analysed this topic in the Italian setting after the global financial crisis. Moreover, there is a call for field research on the components of risks that should be considered as relevant when analysing corporate annual reports, in different national settings (Abraham and Shrivies, 2014) and for a cross-country investigation of the adoption of international auditing standards (Sormunen et al., 2013).

The main research question of this paper is: Which are the most crucial features that auditors consider in order to evaluate the audit risk of the client company? Our study surveyed 56 partners of audit firms in the Italian setting. We especially validate the components of audit risk in the light of the global financial crisis, for new client firms.

Our paper contributes to the literature in several ways. First, we validated the auditing model in the Italian setting by highlighting the components of audit risk (quality of corporate governance, detection risk, inherent risk) for new client firms, after the global financial crisis. Second, we ranked which are the most and the less relevant items within each components of audit risk on which auditors rely most when they evaluate the business client risk. Third, we extended the literature on the effect that corporate governance may have on the assessment of the audit risk. From a practical standpoint, our study is useful to a wide range of stakeholders, such as partners of audit firms in order to better design and use the auditing model, managers of the audited firms to appraise the quality of their financial statements, corporate governance procedures and internal control, and financial analysts at large to better understand which are the

factors that can affect the quality of disclosures.

The remainder of the paper is organized as follows: section 2 presents a literature review on the assessment of the audit risk; section 3 presents a literature review on the relationship between corporate governance and audit risk; section 4 shows data collection and the measurement of the research variables; section 5 shows empirical model and results; section 6 discusses findings, by highlighting academic and practical contributions, limitations and future researches.

The assessment of the audit risk

Practitioners, standard setters and scholars agree that Audit Risk (AR) is the likelihood that auditors fail to issue a correct and fair opinion on the financial statement of a client firm. This can occur when either auditors fail to detect a material misstatement and, thus, issue an unqualified opinion instead of a modified opinion or if the auditor overestimates the audit risk and thus issue a qualified opinion rather than an unqualified one (ISA 200).

An unqualified opinion is the independent auditor judgement in which auditors state that the financial report is fairly and appropriately presented in accordance with Generally Accepted Accounting Principles (GAAP). Instead, a qualified opinion is when auditors issue a judgement in which the client firm has an annual report that is not in accordance with GAAP and/or the information collected by auditors are limited in scope. The concept of materiality recognizes that some matters are important for fair presentation of financial statements in conformity with GAAP, while other matters are not important. SAS No. 39 and 47 (American Institute of Certified Public Accountants (AICPA) 1997) provide the auditors with the guide to assess the audit risk and define the audit risk model, identifying the key determinants of the audit risk which are Inherent Risk (IR), Control Risk (CR) and Detection Risk (DR). Inherent risk is the likelihood that an account balance or class of transactions contains a material misstatement without considering the internal accounting controls; whereas control risk is the probability that a material misstatement will not be detected by the internal controls of a firm, and finally detection risk is the likelihood that a material misstatement will not be caught by the auditor's procedures (IFAC 2007). The audit risk model may be expressed as follows:

$$AR = IR \times CR \times DR \quad [1]$$

Or as follows:

$$DR = \text{Acceptable Audit Risk} / (IR \times CR) \quad [2]$$

According to the audit risk model, auditors need to set materiality and assess acceptable audit risk, inherent risk

and control risk, whereas the detection risk is defined by solving equation 2.

Previous literature about the audit risk highlights the difficulties to assess it and to test the dependencies among components of risk (Dusenbury et al., 2000; Fukukawa and Mock, 2011; Budescu et al., 2012; Contessotto and Moroney, 2014). Similarly, DeAngelo found difficult to define the concept of audit quality (DeAngelo, 1981). Furthermore, corporate failures from 2002 revealed the need to revise the audit risk model and the weakness of the methodology that auditors use to evaluate it (Botez, 2015).

Despite these considerations, some scholars attempted to assess the overall audit risk and its components, taking advantage from the game theory and the strategic-testing theory (Shibano, 1990) and from a survey submitted to auditors (Strawser, 1991; Matarneh, 2011). Furthermore, prior literature attempts to identify the practical key determinants of the audit risk, like the clients' business risk (Bell et al., 2001; Stanley, 2011), the clients' internal corporate governance features (Bedard and Johnstone, 2004; Hogan and Martin, 2009), the litigation risk (Pratt and Stice, 1994), book-tax differences (Heltzer and Shelton, 2015), reputation risk (Beatty, 1989), non-Big4 auditors (McKinley et al., 1985) and the client financial condition (Pratt and Stice, 1994). Within this framework, some scholars identified proxies for each component of the audit risk; inherent risk seems to be associated with the nature of client's business, size, complexity, leverage and to significant accruals such as receivables and inventory, as well as experience of employees, internal incentive systems (Maletta and Kida, 1993; Mock and Wright, 1993; Arens et al., 2007). Control risk seems to be determined by the management's attitude toward internal controls, corporate governance quality and the audit committee quality expressed in terms of audit committee independence and audit committee financial experience (Cohen et al., 2010). Both inherent risk and control risk have been found to be closely linked to audit adjustments (Ruhnke and Schmidt, 2014). Literature about the measurement of the detection risk seems to be scantily addressed, even if the auditing standards (American Institute of Certified Public Accountants - AICPA - 1997) seem to suggest that detection risk may be especially associated to external auditor tenure.

To overcome the difficulties to evaluate audit risk, other scholars usually use audit fees as a proxy of the auditor's effort, in terms of resources that auditors have to employ in the evaluation of the business risk of their clients, and therefore audit fees could be considered as a proxy of audit risk (Simunic, 1980; Hay et al., 2006; Hogan and Wilkins, 2008; Chen et al., 2012).

However, a wide literature about audit fees examines the relationship between audit risk and auditor effort, finding mixed results. Few scholars found no evidence about the relationship between audit plan and audit risk

(Mock and Wright, 1993; Mock and Wright, 1999), whereas most scholars demonstrated the relationships between the level of audit fees and audit risk (Hay et al., 2006; Hogan and Wilkins, 2008). Other studies put forward that audit fees, and in particular unexpected audit fees can be used to assess the client's accounting quality, since it is predictive of frauds, restatements and SEC comment letters (Hribar et al., 2014).

Within this framework, some scholars analysed the impact of the global financial crisis on auditing model, finding an increase in the propensity to issue a going concern opinion and audit effort in terms of higher audit fees and audit reporting lag in the period after financial crisis than the previous one (Xu et al., 2013). Also, standard setters, such as the International Auditing and Assurance Standards Board (IAASB) issued a set of guidelines in 2009 to highlight the importance of carefully assessing going concern issues during the financial crisis, since financial crisis increased the business risks of clients and thus the audit risk for audit firms (Xu et al., 2013). Sikka (2009) pointed out that auditors were not prepared to face massive financial problems during the financial crisis, producing uncertainty and some scholars found that firms are willing to change from non-big4 to big4 audit firms in order to have higher credibility and reliability for their financial statements (Pong et al., 2007). As previously mentioned, auditors should perform an independent audit activity on the client's financial statement (American Institute of Certified Public Accountants (AICPA), 1997).

However, in order to keep the relationship with major clients, nonBig4 firms might be incentivised to adopt dysfunctional behaviours and therefore losing their independency.

The assessment of the audit risk is particularly pivotal in the client-acceptance decisions when auditors have to evaluate features of their potential new clients when making client portfolio management decisions (Bedard and Johnstone, 2004). Scholars pointed out that auditors spend more effort in evaluating financial risk, litigation risk and audit risk when assessing potential new clients (Johnstone, 2000; Johnstone and Bedard, 2003).

Despite these considerations, to our knowledge, very few studies analyze the set of information and client's features which auditors use in the evaluation of audit risk in the client-acceptance decision after the global financial crisis. Since there is a little evidence in the Italian context on how auditors evaluate the audit risk of new clients, we aim at contributing to reduce the gap in the literature and to shed some light on this issue even from a professional's viewpoint.

On the basis of the literature review, we posed the first research question:

RQ 1: How Italian auditors evaluate components of audit risk in the client-acceptance decision after the global financial crisis?

The relationship between corporate governance and audit risk

The role of corporate governance is crucial in order to ensure the integrity of the financial reporting process and to deter fraud (Cohen et al., 2002). In 2002, the collapse of one of the Big5 audit firms, Arthur Andersen witnessed the need for a stronger corporate governance in order to prevent future corporate failures. Especially during the global financial crisis, weaknesses of corporate governance have brought about failure of several companies and financial institutions (Kirkpatrick, 2009).

In particular, Cohen et al. (2002) investigated the effects that features of corporate governance have on the overall audit process, finding that auditors consider some factors of corporate governance especially in the evaluation of new clients and in international context. Strong corporate governance has been found to be associated with good quality in financial reporting and the appointment of accounting financial experts to the company's audit committee (Beasley and Salterio, 2001; Krishnan and Lee, 2009; Gull et al., 2013). As a matter of fact, internal audit function is effective when it has a positive effect on the quality of corporate governance (Sarens, 2009).

On the other hand, the weakness in corporate governance quality could bring about earnings manipulation and financial statement frauds (Dechow et al., 1996; Carcello and Neal, 2000). Within this framework, Krishnan (2001) found a correlation between a sound corporate governance and internal control problems, highlighting that the quality of the corporate governance could affect the evaluation of the audit risk for new clients and therefore, the clients' acceptance decision.

Cassell et al. (2012) found that big4 auditors consider some characteristics of corporate governance in audit strategy, especially after the introduction of Sarbanes-Oxley Act of 2002 (SOX), which increased the public's focus on corporate governance. In particular they created an index of corporate governance, which encompasses board and audit committee independence, diligence and expertise based on prior literature (Dechow et al., 1996; Carcello et al., 2002; Barac and Van Staden, 2009). Some scholars found that clients showing strong corporate governance are associated with higher quality in the auditing procedure since it reduces the audit effort (Cohen and Hanno, 2000). Indeed very few scholars did not find any kind of correlation between the audit model and features of corporate governance (Dittmann et al., 2010).

As mentioned above, in the evaluation of audit risk, the components of corporate governance are encompassed in control risk, which seems to be determined by the management's attitude toward internal controls, corporate governance quality and the audit committee quality, expressed in terms of audit committee independence and audit committee financial experiences (Johnstone, 2000; Krishnan, 2005; Cohen et al., 2010).

Since there is little evidence in the Italian context on how auditors perceive features of corporate governance as relevant factors in evaluating the audit risk of their client, we aim at contributing to reduce this gap in the literature. Moreover, there is a little practical guidance on how auditors should consider the several features of corporate governance in evaluating the risk associated to new clients (Cohen et al., 2002), especially after the global financial crisis (Cao et al., 2015). Indeed, the attention of mass media regarding this topic has increased recently in both national and international context (Cassell et al., 2012). We expect a positive relationship between corporate governance and audit quality, since if the auditors can rely on a sound corporate governance of the client firm, then they will be able to reduce their control effort. In this way, auditors can divert resources that are generally committed to assess the control risk towards other value-adding activities in the process of evaluation of the overall audit risk. Consequently, the quality of the audit procedure can improve. Therefore, on the basis of these considerations, we posit the second research question:

RQ2: How auditors consider features of corporate governance in evaluating the audit risk in the client-acceptance decision after the global financial crisis?

METHODOLOGY

In order to answer the research questions developed above, the present study was conducted on a sample of Italian audit managers, who work for big4 (Deloitte, KPMG, Price Water house Coopers, Ernst & Young) and non-big4 audit firms. We decided to include both kinds of audit firms because prior studies put forward that non-Big4 companies might face higher pressure, than Big4 companies, when they evaluate their clients' audit risk (Pong et al., 2007).

Research design

The research was conducted by adopting a mixed method approach. In social sciences, the joint action of qualitative and quantitative methods can enhance the overall quality of doing research, by triangulating sources (Jick, 1979). Indeed, we first run a set of interviews to audit partners and academics; and then we administered a paper-based questionnaire (Dillman, 2008). This combined method of interviews and survey has allowed the researchers to understand audit managers' perspectives. This methodology is particularly useful in evaluating perceptions and interpretations of social actors (Colwyn Jones, 1992) and reflects the participants' experience in business activities (Giddens, 2013). Furthermore, the joint use of both research methods allows the authors to overcome possible weaknesses and limitations of the single research method.

Instrument and data collection

The research was conducted in two main phases. During the first phase, preliminary in-depth pilot interviews were carried out from

January to March 2013 and during the second, an Italian survey was sent to audit managers in October 2013.

During the first step, a paper-based questionnaire has been tested by academics and audit managers; this allow us to elicit early qualitative feedback and to better refine the research design, the research hypotheses and the subsequent survey (Chen et al., 2010). In the second research phase, a paper questionnaire was sent to the board of all of the Italian branches of big 4 audit firms and to the main non-big 4 audit firms. We decided to choose a specific national setting, because the international standard on auditing (ISA, 330 2009) makes room for discretion in the audit procedure.

Thus, we decided to choose the Italian setting, because Italy is a civil law country, where written rules overcome judges' decisions. In these legal systems less room for discretion is given to judges, compared to common law countries.

Thus, the legal system can have an impact on how auditors deploy international auditing standards, compared to common law countries. This is in line with prior research investigating the role of rules and discretion in other European auditing settings (Carcello et al., 2009).

The survey questions were sent to those audit firms who showed they were particularly willing to collaborate in the current research project (Kvale and Brinkmann, 2009; Yin, 2011; Rubin and Rubin, 2011).

The main aim of the survey was to test the research design and to generalize the empirical results in order to enrich the current literature on this topic (Gable, 1994). The survey was split into 3 main sections as follows: 1) personal data of the interviewee; 2) features of the client; 3) perceptions about the evaluation of the audit risk in the client-acceptance decision after the global financial crisis (listed companies). We sent 100 paper questionnaires to partners of audit firms and we received back 56 valid questionnaires, therefore the survey response rate was around 56%. However, our study is a preliminary step to further investigate this topic. Furthermore, our statistical method is in line with a small sample size (Jung et al., 2009). As a matter of fact, the number of observations is consistent with prior studies in the accounting literature (Bisbe and Otley, 2004).

The measurement of the research variables

The measurement of all research variables included in the research design is based on the survey questions sent to Italian audit managers. As the empirical analysis is based on a survey, most of the research variables measure managers' perceptions. Personal cognitive processes are deemed to be highly relevant for the life of the firms and for decision-making processes (Mintzberg et al., 1976; Hambrick and Mason, 1984). The data that we collected regards the evaluation of the audit risk for new clients after the global financial crisis in Italy from an auditors' perspective (Table 1).

With regard to audit risk, according to literature and professionals' recommendations (Johnstone, 2000; Krishnan, 2005; Cohen et al., 2010), we identified three components, namely: Inherent Risk (IR), Quality of Corporate Governance (QCG) and Detection Risk (DR). Inherent Risk is composed of the following items: 1) sector; 2) sales; 3) inventory and 4) receivables. Quality of Corporate Governance is composed of the following items: 1) effectiveness of the internal control procedures. It regards the quality of procedures that affect internal control system; 2) experience of the audit committee, which regards the level of experience of each component of the audit committee in terms of years that they covered in the same position; 3) level of compliance with the independence of the board of directors, which captures the quantity of independent directors following the Italian law; 4) level of independence of the board of directors aside compliance threshold,

Table 1. Descriptive statistics of the research variables and items in the research variables.

Variable	Obs.	Min	Max	Mean	Standard deviation
Inherent risk	55.000	3.250	7.000	5.236	0.868
Sector	55.000	4.000	7.000	6.130	0.840
Sales	55.000	2.000	7.000	4.930	1.016
Inventories	55.000	2.000	7.000	4.950	1.079
Receivables	55.000	1.000	7.000	4.400	0.993
Quality of corporate governance	55.000	4.000	7.000	5.639	0.847
Effectiveness of the internal control procedures	55.000	4.000	7.000	6.150	0.911
Experience of the audit committee	55.000	4.000	7.000	5.620	1.009
Level of compliance with the independence of the board of directors	55.000	4.000	7.000	5.550	1.015
Level of independence of the board of directors aside compliance threshold	55.000	3.000	7.000	5.400	1.011
Level of independence of the audit committee	55.000	3.000	7.000	5.420	1.117
Effectiveness of the procedures of the corporate governance	55.000	4.000	7.000	5.710	1.031
Detection risk	55.000	3.000	6.600	5.046	0.789
Auditors' experience	54.000	3.000	7.000	6.090	0.937
Size of the audit team	54.000	2.000	7.000	4.740	0.994
Previous auditor belonging to Big4 Audit firms	55.000	1.000	7.000	4.710	1.536
Confirm of engagement of auditors in the same company	52.000	1.000	7.000	4.900	1.142
Number of years in the same company	55.000	2.000	7.000	4.820	0.983

which measures the quantity of independent directors that are beyond the level set by the Italian law; 5) level of independence of the audit committee, that is the quantity of independent auditors sitting in the audit committee; 6) effectiveness of the procedures of the corporate governance. On the basis of the previous literature, we can argue that the items encompassed in the Quality of Corporate Governance could be considered as features of corporate governance (Carcello et al., 2002; Cassell et al., 2012). The detection risk is composed of the following items: 1) auditors' experience; 2) size of the audit team; 3) previous auditor belonging to Big4 Audit firms; 4) confirming of engagement of auditors in the same company, which is the possibility that audit firm was confirmed from the same client firm; 5) number of years in the same company, that is the number of years auditors audited the same client firm. These items allow us to control for the pressure of audit firm with regard to their independence from the client. In particular, the item 4) Confirming of engagement of auditors in the same company, which is included in the measurement of the Detection Risk, witnesses a low pressure on the audit firm, since it can continue its activity for an additional term. Moreover in the Italian setting, there is a general tendency to carry on the engagement until the natural end of the contract, which lasts a maximum of 9 years (Cameran, 2005).

The survey question for each item was: "In the evaluation of the audit risk for new clients (listed firms), which factors do you think have more/less relevance in the last three years (2010-2013) (0 less relevance; 7 more relevance)?"

Data analysis

The first step of our empirical analysis was to perform a principal component analysis (Table 3) in order to build audit risk and its components (Williams et al., 2012). To test the validity and reliability

of the factor analysis we performed Keiser-Meyer-Olkin test to tethe sampling adequacy (Kaiser 1960), Bartlett's sphericity test (Snedecor and Cochran 1989) and assessed the scale reliability through the analysis of the Cronbach's alpha (Nunnally and Bernstein, 1994). We also checked for the eigenvalue of each item in order to check how many factors should be retained into the analysis (Hayton et al., 2004).

In order to answer the second research question (*How auditors consider features of corporate governance in evaluating the audit risk in the client-acceptance decision after the global financial crisis?*), we perform descriptive statistics analysis. We also performed a two-sample t test with equal variances, since this variable is an ordinal one (Armstrong and Overton, 1977) in order to verify whether the quality of corporate governance is more relevant in evaluating audit risk after the financial crisis in auditors' perception than detection risk and inherent risk. We also performed a correlation analysis with Pearson's index in order to show some possible relationships among the components of audit risk. All the statistical analyses have been performed with SPSS 20.0.

FINDINGS

We build up the final research variables: Inherent Risk, Quality of Corporate Governance and Detection Risk through the mean of the items encompassed in each variable (Table 3). Factor analysis confirms previous literature by identifying which items could be encompassed in each research variable, thus answering the first research question (*RQ 1: How Italian auditors evaluate components of audit risk in the client-acceptance decision after the global financial crisis?*).

Table 2. Correlation matrix and Person index of the research variables.

Parameter	Inherent risk	Quality of corporate governance	Detection risk
Inherent Risk Pearson Sig (two-tailed)	1		
Quality of Corporate Governance Pearson Sig (two-tailed)	0.416** (0.002) 0.335*	1, 0.383**	
Detection Risk Pearson Sig (two-tailed)	0.012*	0.004**	1

Table 1 shows some descriptive statistics of our research variables. As shown in Table 1, results from descriptive statistics suggest that quality of corporate governance is a more relevant factor in evaluating the audit risk, compared to inherent risk and detection risk, since the minimum value and the mean of quality of corporate governance (mean: 5.639) are higher than the minimum value and the mean of the other two research variables. It is worth noting that the minimum value of corporate governance is 4. Whereas the other two components show a minimum reported level of 3.25 (inherent risk) and 3.00 (detection risk). Instead, the less relevant component of audit risk is detection risk (mean: 5.046). Among items encompassed in the quality of corporate governance variable, we can notice that effectiveness of the internal control procedure is considered by auditors as the most relevant item after the financial crisis in evaluating the audit risk for new clients (mean: 6.15). The less relevant item for the corporate governance factor is the level of independence of the board of directors aside compliance threshold (mean: 5.400), followed by the level of independence of the audit committee (mean: 5.420). Both items have a minimum value of 3.00 whereas the other components of quality of corporate governance have a minimum value of 4.00. Among items encompassed in the inherent risk variable, we can notice that the sector where the client operates is considered by auditors as the most relevant item after the financial crisis in evaluating the audit risk for new clients (mean: 6.13). Among the items that affect inherent risk, receivable is the less important one (mean: 4.4), showing and a minimum value of 1.00. Sales (mean: 4.93) and inventory (4.95) seem to have the same relevance for the assessment of the inherent risk. Finally, among items encompassed in the detection risk variable, we can notice that auditors' experience is considered by auditors the most relevant item after the financial crisis in evaluating the audit risk for new clients (mean: 6.09). We can observe a stark difference between auditor's experience and all of the other items included in the detection risk measurement. As a matter of fact, the second most important item - Confirm of engagement of auditors in the same company - shows a mean value of 4.90. The less relevant item for detection risk is previous

auditor belonging to Big4 Audit firms, whose mean value is 4.71.

From the t test analysis, we found statistically significant differences between quality of corporate governance and detection risk (p -value = 0.000) and between quality of corporate governance and inherent risk (p -value = 0.015); therefore, the second research question is supported by empirical findings.

Correlation matrix (Table 2) highlights some interesting relationships among components of audit risk. As a matter of fact, inherent risk is correlated with quality of corporate governance (Pearson: 0.416**) and detection risk (Pearson: 0.335*); and detection risk is correlated with quality of corporate governance (Pearson: 0.383**). Amongst these relationships, the relationship between inherent risk and quality of corporate governance seems to be the highest one.

As shown in Table 2, some audit risk components show a moderate level of correlation. A strong interplay between components of audit risk might have a negative effect on the measure of the audit risk. However the international auditing standard setters are aware of a certain degree of correlation among the different components (ISA).

Reported eigenvalue is the only one that showed a value higher than 1 (Kaiser 1960). As shown in Table 3, the reliability of the factor analysis is satisfactory for each item. As a matter of fact, Table 3 outlines factor loadings of the three items included into the audit risk. The KMO measure of sampling adequacy achieves satisfactory levels, being higher than 0.7 (Hair et al., 2006) in all cases but detection risk, where a mediocre but sufficient level was achieved (Kaiser, 1960). Similarly, Bartlett's test reports satisfactory level of goodness of fit of each component of the audit risk (Snedecor and Cochran, 1989). Community values are consistently higher than the threshold level of 0.50. The only item showing a community value below the threshold level - auditor's experience - has been retained because it is generally considered as important in the auditing literature (American Institute of Certified Public Accountants (AICPA) 1997). Moreover, the scale reliability for each component is very good, achieving a level of 0.822 for Inherent Risk, 0.912 for Quality of Corporate Governance

Table 3. Factor analysis of the research variables.

Item	Factor loading	Communality	Eigen value	% of variance	Cronbach's alpha	Bartlett's sphericity test	KMO*
Inherent risk							
Sector	0.716	0.512	2.611	65.284	0.822	Chi2 = 78.223 p-value = 0.000***	0.776
Sales	0.874	0.763	0.637	15.935			
Inventories	0.861	0.741	0.466	11.661			
Receivables	0.771	0.595	0.285	7.120			
Quality of corporate governance							
Effectiveness of the internal control procedures	0.801	0.642	4.176	69.607	0.912	Chi2 = 218.407 p-value = 0.000***	0.834
Experience of the audit committee	0.799	0.638	0.640	10.674			
Level of compliance with the independence of the board of directors	0.899	0.809	0.494	8.227			
Level of independence of the board of directors aside compliance threshold	0.747	0.557	0.317	5.289			
Level of independence of the audit committee	0.879	0.772	0.221	3.682			
Effectiveness of the procedures of the Corporate governance	0.871	0.758	0.151	2.522			
Detection risk							
Auditors' experience	0.581	0.337	2.565	51.305	0.747	Chi2 = 73.606 p-value = 0.000***	0.613
Size of the audit team	0.727	0.529	0.913	18.256			
Previous auditor belonging to Big4 Audit firms	0.719	0.517	0.844	16.877			
Confirm of engagement of auditors in the same company	0.812	0.659	0.444	8.881			
Number of years in the same company	0.724	0.524	0.234	4.681			

and 0.747 for Detection risk, which could be considered as ideal when making relevant decisions (Nunnally and Bernstein, 1994).

Finally, Table 4 presents frequency distribution (in %) for each variable (Variable measurement: A score from 1 to 7 on a Likert scale, where 1 not relevant,..., 7 extremely relevant). The table of frequency distribution confirms the trend described for each research variable for

descriptive statistics and it is useful to answer the first research question. In particular, with regard to the Inherent Risk, we can notice that most of respondents for sales, inventories and receivables identified a score of 5 or 4, whereas for sector they mostly identified a score of 6 on a Likert scale. With regard to the Quality of Corporate Governance, we can observe that most of respondents for Effectiveness of the internal

control procedures identified a score of 7, whereas for the other items, they mostly identified a score of 6. Finally, we regard to the Detection Risk, we can observe that that most of respondents identified a score of 5 or 6.

DISCUSSION

Preliminary results from this study highlighted

Table 4. Frequency distribution (in %) for each variable (Variable measurement: A score from 1 to 7 on a Likert scale (1 not relevant, ..., 7 extremely relevant) .

Research variable name	Item	1	2	3	4	5	6	7
Inherent Risk	Sector	0.000	0.000	0.000	5.454	12.727	45.454	36.363
	Sales	0.000	1.818	3.636	29.091	34.545	27.273	3.636
	Inventories	0.000	1.818	1.818	36.363	27.273	25.454	7.273
	Receivables	1.818	1.818	5.454	49.091	30.909	9.091	1.818
Quality of Corporate Governance	Effectiveness of the internal control procedures	0.000	0.000	0.000	7.273	12.727	38.182	41.818
	Experience of the audit committee	0.000	0.000	0.000	18.182	21.818	40.000	20.000
	Level of compliance with the independence of the board of directors	0.000	0.000	0.000	20.000	23.636	38.182	18.182
	Level of independence of the board of directors aside compliance threshold	0.000	0.000	1.818	20.000	27.273	38.182	12.727
	Level of independence of the audit committee	0.000	0.000	1.818	23.636	25.454	29.091	20.000
	Effectiveness of the procedures of the corporate governance	0.000	0.000	0.000	18.182	16.363	41.818	23.636
Detection Risk	Auditors' experience	0.000	0.000	1.852	7.407	5.555	50.000	35.185
	Size of the audit team	0.000	1.852	7.407	29.629	38.888	20.370	1.852
	Previous auditor belonging to Big4 Audit firms	5.454	3.636	5.454	30.909	20.000	23.636	10.909
	Confirm of engagement of auditors in the same company	1.923	1.923	1.923	30.769	26.923	34.615	1.923
	Number of years in the same company	0.000	1.818	1.818	40.000	27.272	27.272	1.818

interesting considerations in the evaluation of the audit risk for new listed clients after global financial crisis from Italian auditors' perception and shed some light on the auditing model. Empirical findings from this study contribute to the literature in several ways. First of all, this study contributes to that part of literature which is focused on the evaluation of the audit risk. As a matter of fact, little literature in the Italian context based on auditors' perception was carried out. We chose the Italian setting, since Italy is a civil law country, in which the international auditing standards give auditors some degree of discretion

in their auditing activity. The agency theory argues that there is an impact of the common/civil law legal system origins on accounting and auditing practice (Ball et al., 2000; Hope 2003). In common law countries, companies deal with capital markets and numerous investors, without any specific written practice (Bozzolan et al. 2006). This produces a high demand for information from "anonymous" investors at a distance (Ball et al., 2000). In civil law countries, there is a high level of insider (Hope, 2003) and crossover (Ball et al., 2000) ownership by banks or other organisations. Therefore, management can directly access

information (Jaggi and Low, 2000; Hope, 2003).

Our survey highlights the relevance of the three components of the audit risk (the quality of corporate governance, detection risk and inherent risk), by confirming prior literature (Stanley, 2011) and supporting the relevance of quality of corporate governance in evaluating audit risk for a new client. Empirical results show that inherent risk is determined by some features of new potential client such as sector, sales, inventory and receivables, confirming findings achieved by other scholars (Maletta and Kida, 1993; Mock and Wright, 1993; Arens et al., 2007). However, in our

study accounts receivable are not considered as important as other items. This is in contrast with prior research reporting high reliance on receivables by auditors (Cohen and Kida, 1989). On the other hand, the sector where the client is operating is very important and this might be due to the fact that firms working in specific sectors, such as banking, were more exposed to financial failures than others (Berger et al., 2016). As for detection risk, size of audit team and the fact that the previous auditor belongs to a Big4 audit firm is not as important as the auditor's experience. This contradicts prior literature saying that there is a close link between Big4 audit firms and higher audit quality (McKinley et al., 1985).

Quality of corporate governance is determined by features of the board of directors and the audit committee in terms of their independence and experience, and by the quality of the internal control system as have been found by previous studies (Johnstone, 2000; Krishnan, 2005; Cohen et al., 2010). The main contribution of that part of our study was to systematize features which could be encompassed in each component of the audit risk in the perception of Italian auditors, since to our knowledge few scholars use survey in the field of audit risk (Matarneh, 2011).

Furthermore, results show that the quality of corporate governance is more relevant as a factor in evaluating the audit risk for new clients after the global financial crisis, in the Italian context, compared to inherent risk and detection risk. Indeed, some studies found that after the global financial crisis the public attention towards the topic of corporate governance has increased. Our results contributed to the literature investigating which features of corporate governance affect the quality of audit (Cohen et al., 2002). We replied to a call for further research by investigating which are the main components of business risk in a specific country (Abraham and Shrivess, 2014).

This result is consistent with prior studies in the corporate governance field, stating that the quality of the corporate governance could affect the evaluation of the audit risk for new clients and therefore, the clients' acceptance decision (Krishnan, 2001). Furthermore, in line with previous research (Houston et al., 1999), we found that among items encompassed in the quality of corporate governance variable, effectiveness of the internal control procedure is considered by auditors the most relevant item in evaluating the audit risk for new clients and we confirm that relevance even after the global financial crisis.

From a methodological perspective, we attempt to test the components of the audit risk and to evaluate the items, which could be encompassed in the evaluation of the audit risk for new potential listed clients. From the analysis some implications for practitioners emerge. As a matter of fact, the awareness of the composition of the audit risk could be considered useful by auditors in

in setting audit fees, which has been often considered as a proxy of the audit risk in prior literature (Simunic, 1980; Chen et al., 2012). As suggested by other scholars, the audit risk model should be revised to capture the quality of corporate governance (Botez, 2015).

Furthermore, the definition of the auditing model is also useful for: 1) managers inside the audited firms in order to improve their procedures of internal control and the effectiveness of the procedures which affect the sphere of the corporate governance as well; 2) investors at large in order to evaluate the quality of a listed firm; 3) partners of audit firms in order to design and use the revised audit model; 4) standard setters, at both the national and international level, who should focus their regulatory effort in the light of major contribution of corporate governance of the audited firm in the evaluation of the audit risk.

However, this study is not without its limitations. First, the study is a preliminary investigation on a small sample of auditors, therefore it deserves further investigation. Thus, caution should be used in generalizing such findings. Moreover, some measures used in this study are based on auditors' perceptions. Another limitation of our study regards the fact that we have not considered social and behavioral items in the measurement of the three components of audit risk.

Thus, we encourage to investigate further this issue in future studies. Further studies could be addressed at extending our investigation, by extending the survey to other managers in the same country and in other countries in order to highlight similarities and differences among different contexts (Abraham and Shrivess, 2014). Moreover, other studies could be carried out to further investigate the relationship between the three components of AR, since interesting considerations could arise from the present study.

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Conflict of interests

The authors have not declared any conflict of interests.

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