The internal auditing of corporate governance, risk management and ethics: comparing banks with other industries

Silvia Ferramosca*, Giuseppe D'Onza and Marco Allegrini

Department of Economics and Management,
University of Pisa,
Via C. Ridolfi, 10 – 56124 Pisa, Italy
Email: silvia.ferramosca@ec.unipi.it
Email: giuseppe.donza@unipi.it
Email: marco.allegrini@unipi.it
*Corresponding author

Abstract: This paper empirically tests whether the internal auditing function (IAF) in banks is more focused on corporate governance, risk management and ethics than it is in other industries. This study is grounded on theory triangulation, which involves agency, institutional and contingency theory. The results indicate that banks are more likely than other industries to devote auditing activities to corporate governance, risk management and ethics. With reference to risk management internal auditors in banks are more likely to cover the following areas of responsibility relating to risk: assurance on individual risks; assurance on risk management system as a whole and advice/consulting on risk management. As predicted, banks are more likely to have a corporate ethics policy (i.e., a code of ethics or conduct). Nevertheless, there is no significant difference between banks and other industries regarding the amount of ethics-related auditing.

Keywords: corporate governance; risk management; ethics; banking; auditing; internal auditor.

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Biographical notes: Silvia Ferramosca is a PhD and CPA. She is a Post-doc Research Fellow at the Department of Economics and Management, University of Pisa. Her research interests are focused on: corporate governance, financial accounting, international accounting standard IAS/IFRS, intellectual capital and auditing. She is the author of recent studies on these topics published in the *Family Business Review*, in the *Int. J. Business Governance and Ethics*, in the *Journal of Management and Governance* and in the *Journal of Learning and Intellectual Capital*.

Giuseppe D'Onza is a PhD and Full Professor of Risk Management at the University of Pisa, Italy, where he is the Chairman of the MSc in Auditing and Internal Control. He has published articles in journals including *International Journal of Auditing*, *Managerial Auditing Journal*, *Public Management Review*, and *Local Government Studies*. He was a member of the CBOK research team in 2006 and 2010. He is a member of the scientific committee of the European Academic Conference on 'Internal Auditing and Corporate Governance'.

Marco Allegrini is a PhD and CPA. He is also a Full Professor at the University of Pisa, Italy, where he is the Director of the MSc in Chief Financial Officer (CFO). He has published articles in journals including the *International Journal of Auditing*, *Family Business Review*, *Journal of Management and Governance*, *Managerial Auditing Journal*, and *International Journal of Learning and Intellectual Capital*. He was a member of the CBOK research team in 2006 and 2010. He is a member of the Scientific Committee of the European Academic Conference on 'Internal Auditing and Corporate Governance'.

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1 Introduction

This study focuses on the comparison between the internal auditing function (IAF hereafter) in banks and in other industries. Considering the crucial role the IAF plays in a bank's internal control, risk management and governance systems and processes [Basel Committee, (2012), p.4], this paper aims at investigating the difference between IA activities regarding corporate governance, risk management and ethics. Furthermore, our research interest is motivated by the IAF's relevance in the banking industry in terms of enhancing the corporate governance and risk management systems and in spreading ethical behaviour within an organisation. Although banks tend to invest more in the IAF than other industries do, the public is constantly confronted with banks' control failures. The 2007/2008 scandals are a case in point and malpractices in banks have surfaced continuously since the start of the financial crisis (Bremer and Elias, 2007; Aebi et al., 2012; Ellis et al., 2014). Moreover, due to the systemic risk that might affect the economy, the strong regulation of corporate governance requirements characterises the banking industry more than it does other industries (Alexander, 2006). Given the impact of banks' control failures on the macroeconomic system, the last few years have seen a wave of new regulations promulgated in respect of the financial industry around the world[1] (Moshirian, 2011). More specifically, during the last few years, several financial bodies have issued a number of guidelines to assess and enforce banks' internal auditing effectiveness (Basel Committee 2012; Federal Reserve, 2013; CIIA, 2013).

This study integrates the corporate governance literature on banks, since internal auditing is one of its principal functions (Spira and Page, 2003; Cohen et al., 2004; Gramling et al., 2004; Allegrini et al., 2006; Archambeault et al., 2008). A broad literature stream deals with corporate governance issues (Caprio and Levine, 2002; Adams and Mehran, 2003; D'Onza et al., 2014; Laeven, 2013), but only a niche literature addresses the topic, despite the relevance of banks' IAF (Gras-Gil et al., 2012; Salehi et al., 2013).

A review of prior studies identifies two opposing views of banks' corporate governance:

1 A part of the literature emphasises the particularities of the banking industry (e.g., Diamond, 1984; Fama, 1985; Levine, 2004; Alexander, 2006; Hopt, 2013; Laeven, 2013)

2 Another part maintains that, overall, the same governance tools that characterise firms operating in non-financial industries, also characterise banks (Allen and Santomero, 2001).

In this work, we adopt the view of the first literature stream. Besides protecting their shareholder interests, banks' corporate governance should also protect the debt holder interests (Hopt, 2013). According to Levine (2004), two features make banks unique in comparison with other businesses: Their greater opaqueness and higher degree of government regulation. The opaqueness derives from the information asymmetries that tend to be greater in banks. Banks' information asymmetry is twofold: Depositors do not have enough information to assess and control a bank portfolio's risk, while banks have to assess a debtor's solvency before and after granting loans by solely relying on the information that this debtor provides (Alexander, 2006). This banking activity opaqueness has led to various countries' governments offering depositors forms of capital insurance protection, and requiring more transparency and stronger corporate governance mechanisms (Morgan, 2002). Laeven (2013) produces a comprehensive list of features that best pinpoint the differences between banks and non-financial firms: banks' high leverage, the opaqueness of their asset portfolio, their diffuse debt and the maturity mismatch between their assets and liabilities. Moreover, banks are large creditors and, since they are relevant for the economic system, they are heavily regulated. Following these studies, we believe that banks' particularities outweigh the similarities with firms operating in non-financial industries. Our paper's main research objective is therefore to investigate whether the banking industry's IAF related to corporate governance, risk management and ethics differs from that of other industries.

This work contributes to prior literature in several ways. Firstly, we empirically investigate internal auditing's involvement in corporate governance, risk management and ethics, using a large-scale global survey (CBOK, 2015 study, see below for further details): the responses of 13,032 internal auditors from 109 countries, of which 4,279 work in the banking industry around the world. Secondly, we base our study on theory triangulation. This is an alternative approach in the internal audit field. Many studies justify the IAF as a device to reduce agency conflicts (Jensen and Meckling, 1976), but crosschecking the results by means of theory triangulation reinforces our analysis (Denzin, 1970; Gioia and Pitre, 1990; Lewis and Grimes, 1999). More precisely, we base our discussion on the agency, institutional and contingency theories, which provide the theoretical framework. These alternative theories all support our study of the differences between banks and other industries' IAF. As far as we know, no previous paper has studied the banking industry's IAF from these further perspectives. Ultimately, identifying the differences between banks and other industries' internal auditing practices contributes to both the internal auditing and banking literature. More specifically, from a theoretical perspective, our study contributes to the internal auditing literature by pointing out that the extent of the activities the IAF performs depends on the industry in which companies operate. Hence, when studying IA characteristics, academics should keep in mind that these are strongly industry dependent and that the 'one size fits all' model cannot explain the IAF's critical success factors.

Our study will be of interest to others besides academics, as it has several practical implications for regulators, professional bodies (e.g., The Institute of Internal Auditors, IIA), practitioners, banks and, in general, for investors and those charged with internal and external control issues (e.g., directors, audit committees, oversight bodies and external auditors). Our study allows supervisory authorities and banking regulators to gain a better understanding of the internal auditor profession's relevance regarding the enhancement of corporate governance, risk management and ethics areas as well as guiding successful decisions. In addition, professional organisations (e.g., IIA) can derive relevant suggestions for creating ad hoc guides, training programs and for strengthening internal auditors' expertise in corporate governance, risk management and ethics. Finally, our findings suggest the skills that internal auditors and other corporate governance actors necessitate to perform their activities well and the competencies needed in the banking industry.

2 Theoretical framework, literature review and hypotheses development

Our analysis is based on the agency, institutional and contingency theories. Since the pivotal work by Jensen and Meckling (1976), agency theory has explicated the use of internal auditing as a device that is useful to monitor agents' actions (Fama and Jensen, 1983; Wallace and Kreutzfeldt, 1991; Adams, 1994; Ettredge et al., 2000; Wallace, 2004; Berger and Bonaccorsi di Patti, 2006; Filatotchev and Wright, 2011). A large body of literature highlights that the banking industry is more exposed to agency conflicts than others (Caprio and Levine, 2002; Morgan, 2002; Adams and Mehran, 2003; Macey and O'Hara, 2003; Alexander, 2006; VanHoose, 2007; Laeven and Levine, 2009; Laeven, 2013). The banking industry's opaqueness, which is related to the information asymmetries between banks and their debtors and depositors, as well as to their asset composition, gives rise to several agency problems (Berger and Bonaccorsi di Patti, 2006; Alexander, 2006). Contrary to typical industries (e.g., raw material, agriculture, manufacturing, transportation, public utilities, etc.) banks' financial statements feature financial assets and high leverages. Financial assets may be difficult to value and, together with high leverage, they increase banks' uncertainty for investors (Morgan, 2002). Adams (1994) argues that complex businesses are more likely to adopt internal auditors and that internal auditing practices may differ between organisations, due to the differing incentives characterising the principal-agent relationship and the differing information asymmetry between organisations. Banks' increasing agency problems have led to an urgent need for internal audit monitoring. More specifically, given the banking industry's particularities, we expect banks' internal auditing practices to be more focused on corporate governance, risk management and ethics when compared to other industries.

However, critics of agency theory's individual perspective call for internal auditing to be analysed from different perspectives. These critics maintain that internal auditing should not be abstracted from the social, economic and cultural environments in which companies operate (Carruthers, 1995; Wiseman et al., 2012). Following Cuevas-Rodríguez et al.'s (2012) exhortation to expand agency theory with a theoretical framework that includes social and contextual interactions, we exploit the institutional theory. This perspective is also motivated by the literature's recent debate on agency theory's failure to explain the role of internal auditing (Christopher, 2010; Mihret, 2014). The banking industry's enforced IAF is an effort to achieve legitimacy in the eyes of the communities (Meyer and Rowan, 1977; DiMaggio and Powell, 1983; Scott, 1987, 2001; Zucker, 1987). In this sense, internal auditing is a device formally established within an organisation in response to institutional pressures to formalise the expected control practices (Gupta et al., 1994). The institutional isomorphism concept fits the banking context, as banks tend to standardise their behaviour and to homogenise their practices to achieve legitimacy in the eyes of their stakeholders (Eisenhardt, 1988). In turn, banks' need to be eligible for public or private grants and to adapt to norms motivates their desire to fit into administrative categories and to resemble other banks (Meyer and Rowan, 1977; Pfeffer, 1982; DiMaggio and Powell, 1983; Zucker, 1987; Scott, 2001). In this industry, legitimisation is multifaceted (e.g., governments, central banks, policy makers, national stock exchanges, financial market supervising authorities, investors, external auditors, public opinion, etc.) and the implementation of high-level internal auditing practices increases the internal and external approval, potentially enhancing a bank's reputation. Generally accepted national and international auditing standards are incorporated into and institutionalised in a formal structure representing a manifest expression of myth and ceremony (Carruthers, 1995; Meyer and Rowan, 1977). Besides, conforming to socially established procedures and techniques allows banks to free themselves from being considered accountable or negligent when any kind of failure or scandal occurs.

In detail, the institutional theory postulates that coercive, mimetic and normative mechanisms induce institutional isomorphic changes. Coercive isomorphism from political influences affects banks significantly due to their crucial role in the market. We expect this type of isomorphism to advance banks' internal auditing, as strong regulation and the continuous demand for 'good' governance practices induce financial institutions to introduce increasingly elaborate internal control systems in order to gain legitimacy and implement the 'taken-for-granted' norms and beliefs for fear of losing legitimacy (Zattoni and Cuomo, 2008). Ultimately, the development of a sophisticated IAF increases banks' reputation by upholding the appearance that they have strong internal control (Carruthers, 1995; Dillard et al., 2004). Mimetic isomorphism affects banks in that it makes them control risks and uncertainties. Banks respond to uncertainties and to unexpected changes by modelling themselves on the behaviour of other banks. This industry's devotion to incessant innovation in terms of, for example, technologies and regulation contributes to a symbolic mimicking of 'legitimate' procedures. Finally, banks are affected by normative isomorphism, which has, over the years, been institutionalised as the 'banker's profession'. Normative isomorphism mainly results from the professionalisation that universities and professional networks, as well as the category association, produce. Most universities provide specific banking courses, while, all over the world, learning about banking has led to various bankers' associations, field conferences and seminars to ensure that banking professionals' education is kept up to date.

Finally, we interpret our results in the light of a contingency-based framework (Adams, 2002). Three contextual dimensions – corporate characteristics, general contextual factors and internal contextual factors – influence companies' IAF. The accounting field has already studied firms' contextual specificities with reference to their reporting practices and disclosure (Adams, 2002; Ekanayake et al., 2009). Some of the main contextual influences on banks' auditing are the financial industry's characteristics, the level of regulation, the dynamic and complex environment, the professionalisation of auditing and the multiple interest groups. Structural contingency theory is widely used in organisation studies, while it is uncommon in the internal auditing field; we thus adapt the contingency literature on internal control systems to internal auditing (Waterhouse and Tiessen, 1978; Otley, 1980; Donaldson, 1982, 2001; Van de Ven et al., 2013).

A company's characteristics strongly influence the extent of its internal control system. The contingency framework is consistent with several internal control regulations maintaining that the scope of internal control may vary due to the different corporate characteristics (e.g., COSO, the Basle Framework). This implies that each company establishes and manages the most appropriate audit activities, taking its contingency characteristics into consideration (Birnberg et al., 1983; Fisher, 1995; Chapman, 1997; Chenhall, 2003; Jokipii, 2009).

From the contingency theory perspective, banks' IAF is affected on three different levels: The internal organisation, the organisational interface and the external interface. The internal organisation context refers to the firm's specific characteristics, such as its size, industry, business model and performance. The organisational interface relates to contingencies, such as the financial markets, regulatory bodies, governmental agencies, professional organisations, etc. Finally, the external interface refers to all the effects of the political, social, economic and international influences (Ekanayake et al., 2009).

For instance, an increasing size implies an increasing structural complexity (Gupta et al., 1994). Merchant (1981, 1984) emphasises that the bigger the organisation, the higher the inclination to use formal controls and standardised information flows. As the organisation's size increases, repetitive operations and decisions increase, resulting in formalised, specialised and standardised activities. Further, larger organisations can and should invest more resources in sophisticated control activities (Bruns and Waterhouse, 1975; Ezzamel, 1990; Jokipii, 2009).

Some studies find evidence that environmental uncertainty increases the likelihood of more sophisticated internal controls in order to adapt rapidly to external changes, such as regulation, technologies, competition, etc. (Gordon and Miller, 1976; Chenhall, 2003). Owing to banking activities' high complexity and the related efforts to control and measure the risk, the uncertainty concept is applicable in this industry (Morgan, 2002; Jin et al., 2013).

Testing the factors associated with Australian companies' voluntary use of internal auditing, Goodwin-Stewart and Kent (2006) find a significant positive association between firms operating in the finance industry and internal auditing. Further, like the prior literature, they find that the firm size is strongly associated with the use of internal auditing (Wallace and Kreutzfeldt, 1991; Carcello et al., 2005). The investigation of the abovementioned hypotheses supports contingency theory's role in our study.

To sum up, we maintain that our research question refers to three theories: Agency, institutional and contingency. This theory triangulation may contribute to our understanding of the mosaic forming the banking industry's internal auditing practices (Gioia and Pitre, 1990).

Differences between industries' internal auditing have already been highlighted by Goodwin (2004), who compared Australian and New Zealand private and public sector organisations' internal auditing. She examined the extent to which the IAF differs between the private and public sectors in terms of the organisational status, the size of the budget, the percentage of the budget outsourced, the nature of the activities and the interactions with external auditing. Overall, Goodwin (2004) finds evidence of differences between the two sectors, but highlights the relatively small sample size as a limitation of her study. By using a global study's results (CBOK, 2015), we overcome this limitation and can easily generalise the findings resulting from the general research question: Is the IAF in the banking industry more developed than that in other industries? This research question takes the internal audit activities related to corporate governance reviews, risk management and ethics into account.

2.1 Corporate governance

Banks' corporate governance is unique, which means banks have distinctive direction and control tools (Adams and Mehran, 2003; Macey and O'Hara, 2003; Levine, 2004; Laeven, 2013). As underlined above, one of the main IAF objectives is to assess whether the existing governance system is effective and efficient [Basel Committee (2012), p.8]. In the literature, we find limited research on banks' internal auditing activities; although a strong international effort has been made to enforce the issue (Basel Committee, 2006, 2012; CIIA, 2013). The IAF in the financial industry matters to a wide range of stakeholders and involves a wide-ranging set of activities.

Scott and Meyer (1991) indicate that banks (as well as airlines and public utilities companies) withstand technical and institutional pressure by fostering formal structures and rationalised procedures. The Basel Committee (2012, p.4) emphasises the key internal auditing role in the bank's internal control, risk management and governance systems and processes.

Moving from corporate governance reviews, we underline how internal auditing should assess the current and potential governance systems' effectiveness and efficiency [Basel Committee (2012), p.8]. The internal audit plan should therefore largely include activities related to the control of recognised 'good' corporate governance structures.

Compared to other industries, the banking industry is subjected to high IT/ICT risks (Corrocher, 2006). Currently, banks limit their personnel expenses in favour of sophisticated technologies and the automation of certain services (remote banking, online trading), which means they face new risks and that the control environment has changed for their internal auditors (Shain and Gregory, 2003). Consequently, internal auditors should pay a great deal of attention to the information data and systems controls' reliability and confidentiality. In other words, since the banking industry has become more dependent on IT technology, it is crucial that corporate governance bodies require internal auditors' assurance that the governance policies and procedures related to the organisation's use of information technology in particular are being managed and that controls are in place.

Given that the executive compensation plans threatens executives' independence and draws public attention to this issue in banks, executive compensation assessments are of significant importance. As underlined by Faulkender et al. (2010), banks should pay greater attention to the process that determines executives' compensation plans by making incentive plans which are sound with leverage, regulation and deposit insurance. In the light of the studies above, we expect that:

HP1 The extent of activity related to governance reviews (i.e., reviews of governance policies and procedures in general, of governance policies related to the organisation's use of information technology in particular and of executive compensation assessments) is higher in banks than in other industries.

2.2 Risk management

Since the IAF is considered the third line of defence (Basel Committee, 2012), the Basel Committee requires it to independently assess the effectiveness and efficiency of all of the risk management systems and processes. Further, the IAF evaluates banks' capital adequacy by taking their risk exposures and the required minimum ratios into account [Basel Committee, (2012), pp.8–9].

Risk management activities are a key issue for banks' competiveness and value creation process. Credit, market and operational risks are banking activities' main risks. The 2008 crisis emphasised the importance of monitoring the liquidity risk. In September 2008, after the market turmoil exploded at the end of 2007, the Basel Committee on banking supervision published its "Principles for sound liquidity risk management and supervision", which, amongst other principles, states that internal auditing should regularly review the implementation and effectiveness of established strategies and practices to control the liquidity risk [Basel Committee, (2008), p.8]. Moreover, risk management activities in banks should take other important risks into account, like reputational and strategic risks, and develop adequate techniques to manage them. From all these considerations and the current debate on the risk associated with non-performing loans the need arises to improve the risk management systems' adequacy in order to give the Board the possibility to assess the bank's total exposure to risks and to support its decision to manage these.

Allegrini and D'Onza (2003) find that, in the financial industry, internal auditors are more like to join the risk management unit, thus contributing to the qualitative assessment of operational risks. Gras-Gil et al. (2012) highlight that the IAF and its risk orientation should be implemented in accordance with a firm's strategies. Hence, together with other organisational departments, banks' internal auditing should review and improve the risk management processes (Aurelia et al., 2008). The emphasis assigned to risk management activities in banks leads us to the following hypothesis:

HP2 The extent of activity related to risk management (i.e., assurance on individual risks and risk management as a whole, as well as the advice/consulting on risk management activities) is higher in banks than in other industries.

2.3 Corporate ethics

An increasing number of studies highlight the important role that internal auditors play in enhancing the corporate governance system and in helping the board and the audit committee implement best practices for effective company direction and oversight (Leung et al., 2003; Carcello et al., 2005). The Basel Committee (2012) requires the IAF to help the board and other control bodies fulfil their corporate governance responsibilities and maintain an ethical environment. In a recent work, Greco et al. (2015) find that the institutional setting shapes the coverage and strictness of codes. However, these authors do not study the impact that differing industries might have on the voluntary adoption of an ethics code. D'Silva and Ridley (2007) underline the key role that internal auditors play in the promotion of adequate values within a firm. These authors also offer advice on how the IAF should implement and design appropriate ethics-related objectives and activities. Bishop (2013) concludes a thought-provoking study on the role of ethics in the 21st century by maintaining that ethics codes are more than just a token that firms hang on their walls; hence, we derive the relevance of the ethics-related audit aimed at ensuring that corporate values are promoted and recognised. If then we take into account the multiple stakeholders groups and interests turning around banks we imply that it is more likely the adoption of ethics-code and as a consequence, we also expect that the internal auditing department in banks devolve a higher extent of activity to ethics-related audit. By means of a thorough ethics-related audit, internal auditors ensure that employees, senior management and executives exhibit ethical behaviour and set corporate values in line with the expectations that banks are run in a legal and ethical manner (Basel Committee, 2015). Therefore, we posit:

HP3 Banks are more likely than other industries to adopt a corporate ethics code and the extent of activity related to ethics audits is higher than in other industries.

3 Research methods

Our analysis is based on the data gathered in the common body of knowledge in internal auditing (CBOK, 2015) database, which the Institute of Internal Auditors Research Foundation (IIARF) developed[2]. The CBOK (2015) is a global survey in 23 languages of 14,500 internal audit practitioners at all levels, representing more than 166 countries. The survey identifies eight of the IA profession's key topics, such as the future of the IAF, governance, global perspectives, management, risk systems, IA standards, internal auditors' skills and talent, and IA technology. Specifically, the database used for our analysis comprises the responses to a questionnaire distributed electronically to internal auditors in 109 countries, which provided 13,032 usable responses. The CBOK survey provides wide insight into the views of the world's internal auditing profession in 2015, including details of their compliance with standards, the state of the internal audit activity (IAA), the internal auditors' skills, tools and competencies, as well as the value and performance measures or auditing technology risks and use of IT. The research also covers corporate governance system issues, like the use of corporate governance, codes of ethics and topics related to risk management activities, such as the enterprise risk management audit, the top five risks which might require a greater level of attention and the internal audit responsibility related to risk.

The analysis's purpose is to provide a series of inferential statistics to show the differences between the banking industry[3] and all the other industries' internal auditing practices and to interpret the results in the light of existing theories. In detail, to establish the significant differences' between banking and other industries, we used the Z-test. In other words, we performed the column proportions tests by examining the rows of a table independently and comparing pairs of columns, testing whether the proportion of responses in the column of the banks industry differs significantly from that of all the other industries in the other column. The Z-test is suitable, because it relies on two independent groups reported in the two columns 'banks' and 'other' and on a large population. Our analysis's power lies in the sample comprising numerous and unique answers from auditors throughout the world.

We assessed the internal consistency of the questionnaires' responses by means of Cronbach's alpha to determine whether all the items considered are consistent. Of the total sample of 13,032 cases, 1,426 were processed and 11,606 excluded, due to missing values (listwise exclusion of cases). The Cronbach's alpha is 0.828, which indicates an overall good consistency in the 28 randomly selected items, amongst which nine items are used to test the differences between the IAF in banks and in other industries.

Our research scheme is in line with prior works that have carried out an analysis of the CBOK survey (Burnaby et al., 2009; Marais et al., 2009; Sarens and Abdolmohammadi, 2011; Sarens et al., 2011).

4 Results

4.1 Descriptive statistics

We adopted the ACWI FM Morgan Stanley capital international (MSCI) equity index to classify developed, emerging and frontier countries (Sarens and Abdolmohammadi, 2011). To date, this index identifies 68 countries, of which 23 are classified as developed, 23 as emerging and 22 as frontier countries. We also included the MSCI Standalone Market Indexes, which contributed another emerging country and other ten frontier countries; hence, we ultimately classified 79 countries (Table 1). Our sample comprises a total of 13,032 usable responses described as follows: 4,911 from internal auditors working in a developed country, 5,034 in an emerging country, 912 in a frontier country, 895 from internal auditors who primarily work in countries not included in the ACWI FM Morgan Stanley Capital International (MSCI) Equity Index, while the remaining 1,280 responses do not provide country information.

In Table 2, we summarise some demographics pertaining to the respondents' profiles and to the organisation for which they work. Internal auditors' age is below 50 in, respectively, 80% and 76% of banks and other industries. We find that, in respect of the position which internal auditors hold within the organisation, almost the 50% of resources in banks is allocated to the staff level, while the remaining 50% is primarily allocated to Chief Executive Auditors, then to the manager level and subsequently to senior management. It appears that the hours of formal training that the IAF receives are relative similar whether internal auditors work in banks or in other industries. They indeed tend to receive between 21 and 60 hours of formal training per year (about 60%). Concerning the organisations' size, about the 16% of banks and about the 12% of other industries generate total revenues higher than USD 10 billion. Similarly, about 50% of banks and 56% of other industries generate revenues between USD 100 million and USD 10 billion. With reference to the IAF maturity, we can see that, on average, an IAF has been in place in banks for a longer time. In about 32%of organisations an IAF has been in place for at least 25 years, while less than 20% of organisation in other industries have had an IAF for more than 25 years. We also note that only 8% of internal auditors in banks and more than the 16% in other industries have worked with an IAF in place within the last five years. Ultimately, and related to the previous issue, the IA department in banks seems to be overall larger than that in organisations in other industries. For instance, more than the 36% of internal auditors work in banks in which the IA department comprises more than 50 full-time employees, a percentage which is reduced to less than the 14% in other industries[4].

4.2 Univariate analysis

The study results indicate that, in banks, the extent of activity that the internal audit department devotes to the reviews of governance policies and procedures in general is more extensive than that in other industries ($p < 0.01$). Further, as predicted, it is more likely that internal auditors in banks devote a greater extent of their activity to reviews of governance policies and procedures related to the use of IT ($p < 0.01$) and to executive compensation assessments ($p < 0.01$). The findings support HP1 and reveal that banks' internal auditors seem to be more involved in the analysis of corporate governance issues than those in other industries (Table 3). Since the banking industry has become more dependent on IT technology, it is likely that corporate governance bodies require internal auditors to assure them that the IT risks are being managed and that controls are in place (D'Onza et al., 2014). Following the 2008 financial crisis, many countries adopted executive compensation legislation to reduce their excessive risk-taking incentives, which may have induced banks' internal auditors to focus more on the analysis of compensation schemes and plans. However, normative requirements are not the only driver to impact these results, as the review of executive compensation schemes in banks might be aimed at enhancing investors' confidence in the mechanisms, which reduces excessive risk behaviour.

With reference to HP2 we find that internal auditors in banks are more likely to provide assurance on individual risks ($p < 0.01$) and on risk management as a whole ($p < 0.01$) as well as provide advice and consulting on risk management activities ($p < 0.01$). Internal auditors in banks play an important role in ensuring the board and the control bodies that actions to mitigate individual risks (e.g., financial, liquidity, fraud, and operational risks) and the whole risk management system are effective. Banks' internal auditors focusing more on financial and market risks after, for example, the subprime crisis, which highlighted several weaknesses in their capability to manage these risks, may explain this result. Hypothesis 2 is further supported by an IAF in banks being more likely to follow a risk-based approach ($p < 0.01$) (Table 4).

Finally, we find that banks are more likely to adopt an organisational ethics policy or code of ethics (code of conduct) than other industries ($p < 0.01$). However, Hypothesis 3 is only partially supported, as there is no significant difference between the extent of banks' and other industries' activity devoted to ethics-related audits ($p = 0.143$) (Table 5). The ethics-related audit in banks does not differ from that in other industries. This last result indicates that banks adopt codes of conduct more than other industries, although an ethics-related audit is not more widespread. A possible critical interpretation of this result is that banks adopt codes of ethics in response to the normative pressure that regulators and authorities exert and probably to appear more 'ethical' in the eyes of their various stakeholders. This finding suggest that internal audit activities are not fully-aligned with the policies, which means that some banks have not yet introduced internal control tools to monitor compliance with the ethics code. These results indicate a possible area for the development of banks' internal auditing activities. Indeed, internal auditors who also cover ethical issues could support ethical policies and standards' implementation.

Table 1 Number of usable responses of the two groups (banks and other) classified per countries

Developed	*Banks*	*Other*	*Emerging*	*Banks*	*Other*	*Frontier*	*Banks*	*Other*
Canada	67	187	Brazil	56	226	Argentina	49	83
USA	694	1,424	Chile	31	118	Jamaica	4	7
Austria	27	35	Colombia	52	82	Trinidad and Tobago	6	9
Belgium	13	20	Mexico	59	112	Croatia	15	30
Denmark	34	21	Peru	64	75	Estonia	12	48
Finland	8	21	Czech Republic	10	49	Lithuania	11	23
France	73	197	Egypt	3	15	Romania	14	33
Germany	59	148	Greece	83	102	Serbia	42	22
Ireland	0	7	Hungary	3	11	Slovenia	22	37
Israel	13	72	Poland	31	74	Bosnia Herzegovina	3	21
Italy	58	100	Qatar	8	41	Bulgaria	25	22
Netherlands	4	11	Russia	18	47	Ukraine	20	14

Notes: Countries are classified according to the MSCI International Equity Indices.
Totals are based on respondents. Dichotomy group tabulated at value 1.
[1] The West African Economic and Monetary Union (WAEMU) is made up of the following countries: Benin, Burkina Faso, Ivory Coast, Guinea-Bissau, Mali, Niger, Senegal and Togo.

Table 1 Number of usable responses of the two groups (banks and other) classified per countries (continued)

Developed	*Banks*	*Other*	*Emerging*	*Banks*	*Other*	*Frontier*	*Banks*	*Other*
Norway	10	26	South Africa	67	269	Kenya	7	15
Portugal	4	9	Turkey	69	117	Mauritius	3	28
Spain	348	119	United Arab Emirates	54	250	Morocco	3	7
Sweden	33	45	Saudi Arabia	33	232	Nigeria	17	27
Switzerland	153	153	China	495	709	Tunisia	3	11
UK	27	85	India	71	365	Botswana	2	8
Australia	27	68	Indonesia	69	118	Ghana	1	4
Hong Kong	3	8	Korea	13	51	WAEMU1	5	10
Japan	65	296	Malaysia	39	190	Zimbabwe	8	54
New Zealand	5	45	Philippines	15	50	Lebanon	8	11
Singapore	29	70	Taiwan	50	319	Oman	8	34
			Thailand	3	16	Bangladesh	8	51
						Sri Lanka	4	3
Total	1,751	3,160		1,396	3,638		300	612

Notes: Countries are classified according to the MSCI International Equity Indices.
Totals are based on respondents. Dichotomy group tabulated at value 1.
[1] The West African Economic and Monetary Union (WAEMU) is made up of the following countries: Benin, Burkina Faso, Ivory Coast, Guinea-Bissau, Mali, Niger, Senegal and Togo.

Table 2 Descriptive statistics per group (banks and other)

Industry		*Banks*			*Other*	
Question	*N*	*Row N %*	*Column N %*	*N*	*Row N %*	*Column N %*
What is your age?						
24 years or younger	63	29.2%	1.7%	153	70.8%	2.0%
25 to 29 years	427	35.2%	11.3%	786	64.8%	10.2%
30 to 39 years	1,471	35.6%	38.8%	2,662	64.4%	34.5%
40 to 49 years	1,061	32.2%	28.0%	2,230	67.8%	28.9%
50 to 59 years	658	30.2%	17.4%	1,521	69.8%	19.7%
60 years or elder	107	22.2%	2.8%	374	77.8%	4.8%
Total	3,787	32.9%	100.0%	7,726	67.1%	100.0%
What is your position as an internal auditor in the organisation?						
Chief Audit Executive or Equivalent	855	25.6%	20.4%	2,489	74.4%	29.2%
Director or Senior Manager	569	34.9%	13.6%	1,061	65.1%	12.4%
Manager	724	34.5%	17.3%	1,374	65.5%	16.1%
Staff	2,044	36.2%	48.8%	3,600	63.8%	42.2%
Total	4,192	33.0%	100.0%	8,524	67.0%	100.0%
How many hours of formal training related to internal audit do you receive per year?						
0 (no hours)	174	24.4%	4.1%	539	75.6%	6.2%
1 to 10	304	30.2%	7.1%	701	69.8%	8.0%
11 to 20	481	27.5%	11.3%	1,267	72.5%	14.5%
21 to 40	1,799	34.1%	42.1%	3,483	65.9%	39.9%
41 to 60	813	352%	19.0%	1,497	64.8%	17.1%
61 to 80	330	37.3%	7.7%	555	62.7%	6.4%
81 to 100	192	39.4%	4.5%	295	60.6%	3.4%
101 to 399	164	31.1%	3.8%	363	68.9%	4.2%
400 to 999	12	29.3%	0.3%	29	70.7%	0.3%
Total	4,269	32.8%	100.0%	8,729	67.2%	100.0%
What was the approximate total revenue of your organisation in US dollars for the previous fiscal year?						
$1 million or less	97	27.2%	4.9%	259	72.8%	5.8%
More than $1 million up to $100 million	571	33.5%	28.9%	1,131	66.5%	25.2%

Table 2 Descriptive statistics per group (banks and other) (continued)

Industry	*Banks*			*Other*		
Question	*N*	*Row N %*	*Column N %*	*N*	*Row N %*	*Column N %*
What was the approximate total revenue of your organisation in US dollars for the previous fiscal year?						
More than $100 million up to $1 billion	583	30.0%	29.5%	1,359	70.0%	30.3%
More than $1 billion up to $10 billion	413	25.8%	20.9%	1,185	74.2%	26.4%
More than $10 billion	315	36.5%	15.9%	548	63.5%	12.2%
Total	1,979	30.6%	100.0%	4,482	69.4%	100.0%
Approximately how many years has the internal audit department been in place in at your organisation?						
less than 5 years	247	17.5%	8,1%	1,161	82.5%	16.8%
5 to14 years	1,040	27.2%	34.1%	2.789	72.8%	40.3%
15 to 24 years	790	32.6%	25.9%	1.636	67.4%	23.6%
25 to 34 years	455	36.8%	14.9%	783	63.2%	11.3%
35 years or more	516	48.0%	16.9%	559	52.0%	8.1%
Total	3,048	30.6%	100.0%	6.928	69.4%	100.0%
Approximately how many full-time equivalent employees make up your internal audit department?						
1 to 3	562	19.9%	14.5%	2,267	80.1%	28.8%
4 to 9	751	23.9%	19.3%	2,389	76.1%	30.3%
10 to 24	704	30.8%	18.1%	1,580	69.2%	20.1%
25 to 49	457	41.5%	11.8%	645	58.5%	8.2%
50 to 299	805	56.8%	20.7%	613	43.2%	7.8%
300 to 999	385	74.5%	9.9%	132	25.5%	1.7%
1,000 or more	219	46.5%	5.6%	252	53.5%	3.2%
Total	3,883	33.0%	100.0%	7,878	67.0%	100.0%

Table 3 Extent of activity related to governance reviews

HP1	*Banks*		*Other*		*p1–p2*	*z-test for differences between proportion*
	N	*% within banks (p1)*	*N*	*% within other (p2)*		
Reviews of governance policies and procedures in general	548	78.2%	1,262	67.2%	11%	5.468***

Note: Statistically significant at: *10, **5 and ***1% levels (one-tailed).

Table 3 Extent of activity related to governance reviews (continued)

HP1	*Banks*		*Other*		*p1–p2*	*z-test for differences between proportion*
	N	*% within banks (p1)*	*N*	*% within Other (p2)*		
Reviews of governance policies and procedures related to the organisation's use of information technology (IT) in particular	583	82.8%	1,184	63.2%	20%	9.707***
Executive compensation assessments	192	28.8%	359	20.5%	8%	4.328***

Note: Statistically significant at: *10, **5 and ***1% levels (one-tailed).

Table 4 Extent of activity related to risk management

HP2	*Banks*		*Other*		*p1–p2*	*z-test for differences between proportion*
	N	*% within banks (p1)*	*N*	*% within other (p2)*		
Provide assurance on individual risks	2,064	51.5%	3,218	40.2%	11%	11.822***
Provide assurance on risk management as a whole	2453	61.2%	3,144	39.3%	22%	23.207***
Provide advice and consulting on risk management activities	2387	59.5%	4,427	55.3%	4%	4.430***
My organisation does not follow a risk-based approach.	85	2.1%	767	9.6%	–7%	–15.164***
Other	193	4.8%	480	6.0%	–1%	–2.656***
Organisational ethics policy, code of ethics, or code of conduct	3,439	88.1%	6,099	79.1%	0.09035348	12.072***
Ethics-related audits	285	41.4%	829	44.7%	–3%	–1.464

Note: Notes: Statistically significant at: *10, **5 and ***1% levels (one-tailed).

Our results robustly withstand the test of independence measured by means of the Chi-square, which is a suitable comparable and substitute approach in the case of two independent comparison groups.

5 Conclusions

Our study provides interesting results that contribute to the academic literature and also have practical implications. Overall, the results suggest that internal auditing in banks devotes a greater extent of activity to corporate governance and risk management when compared to that in other industries. Stewart and Subramaniam (2010) explicitly list the likelihood of industry differences amongst the future internal auditing research opportunities, which our study has thus investigated.

The agency, institutional and contingency theories support all our findings and allow for a threefold literature contribution.

Firstly, by focusing on the banking industry, we deepen internal auditing studies from the *agency theory* perspective. The results indicate that, in banks, internal auditors' activities might help reinforce the mechanisms designed to reduce agency conflicts, like the corporate governance review and the executive compensation assessments. These audit activities may reinforce the degree of compliance with governance best practices and mitigate the risk of senior management's opportunistic behaviour. The greater information asymmetries in banks increase the importance of monitoring mechanisms, such as internal and external auditing, and the need for these mechanisms to work together in order to reduce the agency problem (Ferramosca et al., 2016). The high number of governance regulations on banks makes the role that control actors play even more important, in order to avoid banks' activities not complying with the law and to maintain their reputation.

Secondly, we contribute to the new *institutional theory*, because, as far as we know, no prior paper has investigated the extension of the IAF to the banking industry from this perspective. In this industry, the supervisory authorities' pervasive regulations and pressure seem to influence the extent of the internal audit activities related to corporate governance and risk management. Moreover, the need to maintain their legitimacy leads banks to develop internal audit activities to ensure that all the risks (both individual and as a whole) that may impact their reputation are effectively and timely identified, assessed and managed.

Finally, we contribute to *contingency theory* by suggesting how contextual dimensions may affect the IAF. There are several contingency aspects that determine banking activities' higher complexity, such as the fair value measurement of financial instruments, financial product innovation, the development of new IT delivery channels as well as the increase and rapid change in regulations. This complexity increases the inherent risks characterising banks' business model and, consequently, the importance of setting up internal auditing activities to mitigate the emerging threats.

From a practical perspective, this study provides useful implications for:

a Banking regulators by helping them understand the important role that internal auditors play in the corporate governance, risk management and ethics areas and in supporting the decision-making processes on these topics.

b Professional organisations, like the IIA, by helping them provide guidelines, standards and training programs for practitioners, in order to increase their competencies regarding governance, risk management and ethics issues.

c Internal auditors in banks by helping them benchmark themselves in terms of their activities performed. This benchmark could help them review internal auditing strategies and plans with the aim of adding value to the organisation.

d Banks by helping them develop internal control system to strengthen the adoption of ethical policies in the day-to-day operations. Internal auditors can play an important role in this perspective.

The proxies selected to analyse internal auditing's role in corporate governance, risk management and ethics can be useful indicators or yardsticks of internal auditing practices in other industries. Our results also show that the banking industry can be regarded as a type of forerunner for advanced IAF; other industries might therefore examine banks to develop their internal auditing practices.

A limitation of the study is that it is based on the responses of a survey carried out by the IIA to assess internal auditing practices around the world without a specific focus on the banking industry; specifically, it does not consider various internal audit activities which could be relevant for this industry. Furthermore, as in all surveys, the proxies used are based on the perceptions of the 2015 CBOK respondents, which might decouple from the actual practices, processes and skills they perform and possess. Another pitfall is that the respondents were all involved in the internal auditing profession, while a diverse point of view might have provided additional value to the results. However, these limitations may be turned into suggestion for future research. For example, it could be worthwhile investigating the characteristics of the credit lending process audit, of the capital adequacy requirement audit and of the investment banking audit – three key aspects that influence banks' performance.

Since not only banks have particular features regarding their regulations, external pressures and legitimacy expectations, future research might investigate the differences in other industries' internal auditing practices. Different types of ownership (e.g., family firms, state-owned firms and non-profit organisations) and other corporate governance variables may also influence the IAF and its activities. Furthermore, future studies might explore whether the differences between the banking industry and others still persist, or whether they increase or decrease over time. For instance, the 2008 financial crisis might have exacerbated the differences, requiring more corporate governance, risk management and ethics auditing activities. Our results show that internal audit activities regarding corporate governance, risk management and ethics are more frequent in banks than other industry. However, our analysis does not take into account the effectiveness of audit process in order to detect failure of corporate governance, risk management and ethics. Future research could investigate whether a higher frequency of auditing activities corresponds to enhanced audit effectiveness. Researcher can specifically investigate whether crisis is more frequent where IA activities are less effective. Another strand of research could assess whether the public perception of banks would be enhanced if the IAF were to be more focused on ethics and corporate governance issues. Are illegal acts, errors, fraud, earnings management and internal control weaknesses denounced or detected more timely when ethics-related audits are carried out? Ultimately, future research could analyse the differences and similarities between countries in order to highlight other drivers of internal auditing activity, such as the local culture, the internal auditing maturity, the local regulations and the local economy's complexity and development.

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Notes

1 The following financial regulations are amongst the best known: The US Dodd-Frank Act 2010 and Europe's Basel II, Basel III, the markets in financial instruments directive (MiFID) and capital requirements directive (CRD4).

2 We acquired access to data managed by The IIA research foundation, including data from CBOK (2015).

3 When we use the term 'banks', we refer to the following categories: banking and financial institutions, credit unions, thrift and savings and loan. Our study does not cover the following categories: insurance, real estate, other financial institutions (e.g., security and commodity services or holding companies) and central banks.

4 For these descriptive statistics, we performed independent samples Wald-Wolfowits runs test to check that the two samples are equally distributed and independent. In all the cases (i.e., age of respondents, respondents' staff levels, hours of formal training per year, size of the organisation, maturity of the IAF and size of the IA department) the results indicate that the distributions of the samples are the same across categories; hence, we hold the null hypotheses.