

IMF Working Paper

Effectiveness of Internal Audit and Oversight at Central Banks: Safeguards Findings - Trends and Observations

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Finance Department

Effectiveness of Internal Audit and Oversight at Central Banks

Safeguards Findings – Trends and Observations

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Abstract

Experience under the safeguards policy has shown that central banks continued to strengthen their safeguards frameworks, but that vulnerabilities prevailed in the areas of internal audit and oversight by the audit committee (AC). This paper takes steps to help unravel why this was the case, based on analysis of safeguards findings in these areas during the period April 2010 to December 2017 (covering 111 assessments at 64 central banks). Based on this analysis, it presents the key attributes that determine the effectiveness of internal audit and the AC. It also argues that, an effective internal audit function, coupled with strong oversight by a high-performing AC are key enablers of good governance.

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I. INTRODUCTION

When the IMF provides financing to a member country, a safeguards assessment is carried out to obtain reasonable assurance that its central bank is able to adequately manage the Fund's resources and provide reliable data on the IMF-supported program. Safeguards assessments are diagnostic reviews of central banks' governance and control frameworks, and involve an assessment of central bank operations in five areas: the external audit mechanism, the legal structure and autonomy, the financial reporting framework, the internal audit mechanism, and the system of internal controls, i.e., the ELRIC framework.²

The 2015 review of the safeguards policy found that central banks had continued to strengthen their safeguards frameworks, but that challenges remained in some areas. In particular, a general shift toward greater transparency in financial reporting and external audits conducted in accordance with international standards had been maintained. However, as operating environments and practices evolved, some central banks lagged behind, particularly in the areas of internal audit and oversight. Since the 2015 review, safeguards findings continue to flag that internal audit functions have low institutional status and face capacity constraints. Further, oversight by the audit committee (AC) is undermined primarily by inadequate composition and insufficient expertise.

Safeguards experience shows that an independent internal audit function, coupled with strong audit committee oversight, are key enablers of good governance that help to develop robust control environments and support stronger central banks. In addition to independence and authority, internal audit should have sufficient capacity to fulfill its mandate as an assurance function to the central bank's Board and senior management on the quality and adequacy of internal control systems and governance processes.

Given the consistent trends observed in internal audit and oversight, a detailed review of safeguards findings in these areas was conducted for the period April 2010 to December 2017 (the period) to help unravel the underlying causes. The analysis in this paper focuses on the main characteristics evaluated by safeguards assessments in these areas during the period, which covered 111 assessments at 64 central banks. Using these characteristics, analysis was conducted to evaluate the effectiveness of the internal audit function and the AC. Based on this analysis, internal audit functions were found to be effective in only 29 percent of assessments, due in particular to capacity constraints. Similarly, for ACs, only 22 percent were found to be effective,

² The safeguards policy is an integral part of the IMF's risk management framework for its lending activities, with 303 assessments covering 96 central banks completed as of end-December 2017. More information on the IMF safeguards policy is available here: <u>Safeguards Factsheet</u>.

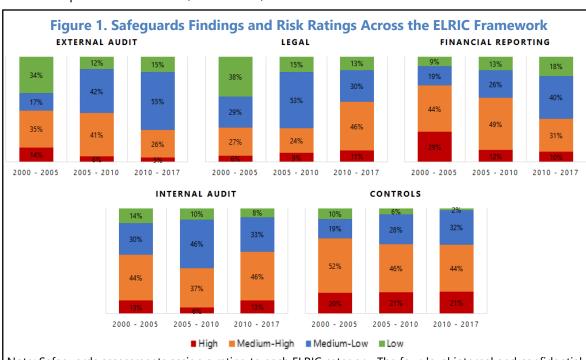
³ The IMF safeguards policy is subject to quinquennial reviews by the IMF Executive Board. These reviews were conducted for the period 2000-2005, 2005-2010, and 2010-2015. For a discussion on general trends in safeguards work since the policy's inception, i.e., March 2000, see <u>Safeguards Assessments—Review of Experience</u> (2015).

primarily because of deficiencies in the composition of the committee and the expertise of its members.

The remainder of this paper is structured as follows. Section II provides an overview of safeguards experience and trends over the past seven years. Section III describes the characteristics applied in safeguards assessments in reviewing internal audit functions and oversight by ACs. Section IV covers the analysis conducted and section V discusses the results. Finally, section VI concludes and offers some reflections on the way forward.

II. SAFEGUARDS EXPERIENCE AND TRENDS

The main output of a safeguards assessment is a confidential report that establishes time-bound recommendations to address key vulnerabilities in a central bank's safeguards framework. Figure 1 provides a trend analysis of safeguards risk ratings in the five ELRIC categories, over three time periods: 2000-2005, 2005-2010, and 2010-2017.



Note: Safeguards assessments assign a rating to each ELRIC category. The four-level internal and confidential risk ratings are Low, Medium-Low, Medium-High, High.

Source: IMF safeguards database

As shown in Figure 1, external audit and financial reporting practices have improved significantly over the past seven years with 70 percent and 58 percent, respectively, of assessments found to have low or medium-low risks. Central banks have generally improved their external audit arrangements and continued to adopt international financial reporting practices. This has resulted in greater transparency in financial reporting and external audits conducted in accordance with international standards. However, in contrast, progress has been uneven in other areas covered by safeguards assessments. As operating environments and practices evolve, some central banks lag behind in the areas of governance/oversight, internal audit, and modern

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central bank legislation. Consequently, the proportion of assessments with medium-high or high risks identified in the areas of internal audit and legal increased in the past seven years.

In particular, internal audit functions assessed during the April 2010-December 2017 period were found to have areas for improvement in 59 percent of central banks. Notably, some 5 central banks did not have an internal audit practice at all. As identified in the 2015 review of experience under the safeguards policy, a close examination of safeguards findings in internal audit, beyond the risk ratings, indicated that central banks assessed faced three key challenges:

- Low institutional status hindering the independence and authority of the function to carry out its responsibilities as an assurance provider.
- Capacity constraints, including limitations in staffing levels, skills, and relevant
 professional qualifications to keep up with heightened risks and the complexity of
 operations. This also impacted central banks' ability to implement risk-based audit
 methodologies as staff did not have the requisite expertise.
- Inadequate oversight, mainly manifested in insufficient monitoring of audit plan completion and recommendations, and infrequent reporting to the Board/AC.

The above trends reflect, to some degree, the increased complexity of central bank operations, coupled with first-time assessments in the past seven years that included assessments at central banks of fragile states with a relatively higher risk profile, which typically show deeper vulnerabilities against safeguards requirements. The increased risk profile in internal audit is indicative of deep-rooted weaknesses that continue to hinder the evolution of internal audit functions and require further analyses to help unravel why this has been the case. On the other hand, observations relating to central bank legislation are largely due to difficulties in enacting legal reforms, and a sharper focus on governance in safeguards assessments since 2010. The 2010 review of the safeguards policy recommended that the safeguards framework be enhanced to include a sharper focus on governance. This recommendation resulted in greater rigor being applied in the review of central bank laws and new evaluations of these against more stringent good practices for central bank autonomy and governance.

Similarly, the findings from the 2015 review showed that risk ratings related to internal controls have remained elevated. An important element influencing the trends in this area is the evolution of good governance, including through oversight of key operations by the board and AC.⁴ Guided by such sharper focus on governance and oversight, safeguards assessments conducted since 2010 found that some 65 percent of central banks assessed fell short of good governance practices. Vulnerabilities noted included: (i) conflict of interest or independence issues; (ii) insufficient requisite expertise; and (iii) oversight scope that lacked coverage of important areas.

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⁴ While governance is an overarching theme of the ELRIC framework, the assessment of internal controls places greater emphasis on the quality of the control environment, and the degree of governance and oversight exercised from the highest levels of a central bank.

III. SAFEGUARDS ASSESSMENTS - CHARACTERISTICS

A. Internal Audit

The internal audit function's role is to provide independent assurance to the Board and senior management on the quality and effectiveness of the central bank's risk management, internal control, and governance systems and processes. An assessment of the internal audit mechanism within the ELRIC framework aims to capture and assess whether this function has sufficient capacity, organizational independence, and authority to effectively fulfill its mandate. Safeguards assessments also review whether internal audits are performed in compliance with international standards.⁵

As shown in Figure 1, safeguards findings indicated that 59 percent of assessments conducted between 2010 and 2017 had areas for improvement in internal audit, as represented by mediumhigh and high risk ratings. Risk ratings are based on professional judgment regarding the gravity of vulnerabilities found. However, given that risk ratings are specific to each central bank, it is crucial to explore how they are assigned and identify the main characteristics influencing the safeguards assessment of the internal audit mechanism. These are described below:

i. Organizational independence and authority.

Internal audit independence from management is a pre-requisite for its mandate to provide assurance on the internal control environment. To do so, the internal audit function should conduct its work objectively and without interference, and be perceived to do so. The positioning of the internal audit function and the role of the Chief Audit Executive (CAE) within the governance/management structure of the central bank, along with direct access to the Board (i.e., functional reporting to the Audit Committee) and administrative reporting to the Governor, reinforce the authority of the function and can have a significant impact on its profile and influence within the bank, while safeguarding its independence. The stature and duties of the internal audit function should be established in a formal charter approved by the Board and manifested in unrestricted access to records and personnel, and a scope of work free from any limitations or operational responsibilities.⁶

Safeguards findings indicate that the independence and objectivity of an internal audit function are greatly impacted if the CAE is not at the same level of other department heads or senior executives at the central bank. Similar shortcomings are found if internal audit lacks a clear charter, operates as a first level control function, or assumes operational responsibilities.

⁵ The *International Standards for the Professional Practice of Internal Auditing*, promulgated by the Institute of Internal Auditors (IIA), are the primary benchmark anchoring the activities of the internal audit function. The Standards cover how internal audits are planned and performed, and how audit results are communicated and monitored without interference.

⁶ While it is not a pre-requisite, the independence of the internal audit function is further safeguarded when underpinned by provisions in the central bank law on its main duties, scope, and independence as well as the CAE's appointment process, term of office, and grounds for dismissal.

ii. Oversight.

The organizational independence of internal audit is also reinforced through accountability of the function to an oversight body such as the Board (i.e., principally functional reporting to the Audit Committee) on all matters related to the performance of its activities. This functional reporting relationship for instance allows for the oversight body's involvement in key decisions, such as approving the internal audit plan, budget, and training program. Internal audit functions with no direct access to the Board (or the Audit Committee) face various challenges, including deficient allocation of resources to carry out their responsibilities, low acceptance/implementation of recommendations, and insufficient efforts to further build capacity and support internal audit staff development to become professionally certified (see below).

iii. Staffing level and competencies.

The internal audit function should have sufficient resources to fulfill its role, which should include the right mix of seniority, and professional skills and competencies required to audit high risk areas. Consideration is also given to proficiency of internal auditors demonstrated through appropriate qualifications and formal professional certifications, as well as training and continuous development programs.

Safeguards assessments during the period from April 2010 to December 2017 found that capacity constraints are the most predominant issue facing internal audit functions at central banks, including limitations in resources (understaffed functions), lack of technical audit expertise and/or professionally certified auditors, and insufficient training. These shortcomings result in specialist areas of central bank operations (e.g., IT, reserves management) being insufficiently covered, as well as internal audit functions unable to keep pace with the evolution of international standards and professional requirements.

iv. Audit approach.

Equally important to the assessment of capacity is the methodology and practices adopted by the internal audit function to set its scope of work, and plan and execute its activities. The internal audit approach should be risk-based and in conformity with international standards, and allow for flexibility to respond to the evolution of the central bank's risk profile and emerging vulnerabilities in its control environment.

Risks are heightened when the audit approach is compliance driven; in such cases, the internal audit coverage of high risk areas is sub-optimal and falls short of a comprehensive evaluation of the control framework. This is a departure from international standards and typically a consequence of the underlying capacity constraints. Another finding is that internal auditors are expected and often directed by senior management to execute inspection work. In this context, the capacity constraints tend to be associated with institutional rigidity toward modern risk-based auditing caused by legacy "general controls and inspection" models.

v. Reporting and monitoring.

In addition to communicating its audit findings and recommendations to senior management, the internal audit function should ensure periodic reporting to the Board or the AC on significant risk exposures and control weaknesses. This should include root-cause analysis and a summary of recommended remedial actions, as well as progress updates on the status of the annual audit plan, and the implementation of recommendations. The function should also maintain a formal follow-up process for monitoring the resolution of audit findings and ensuring that the remedial actions have been effectively implemented.

Shortcomings in reporting and monitoring are in part due to tainted lines of communication (e.g., communication of audit results to the Governor only, or communication to the AC through the Governor), or sporadic information to the AC which hinders timely oversight. Poor monitoring of internal audit work, such as status of completion of audit plans and implementation of recommendations can also affect the quality of reporting.

vi. Quality assurance and improvement program (QAIP).

Quality assurance is another aspect needed to maintain adherence of the internal audit function to international standards, including through independent external quality assessments every five years and action plans to address areas for improvement. Safeguards findings on the internal audit quality aspect include the absence of formal QAIPs and respective internal and external quality reviews required for continuous compliance with the international standards.

Further examples of vulnerabilities noted by safeguards assessments in the area of internal audit are listed in Annex III.

B. Audit Committee Oversight

Governance is an overarching theme of the ELRIC framework. Safeguards work has been adapted to emphasize the assessment of governance arrangements at central banks through the consideration of control practices and oversight of key operations by the board and the AC. This involves a closer review of these governance bodies, including their composition, appointment practices, members' independence and expertise, and the efficacy of their role and responsibilities.⁷

An AC is key to enabling a strong governance environment. Safeguards assessments assess how the committee fits into the overall governance framework, its mandate, and its oversight function in practice. To this end, safeguards assessments focus on the following key characteristics:

⁷ While self-assessments were not considered as an indicator, this is arguably an important emerging practice that could be a key characteristic of an effective Audit Committee.

i. **Composition.**

Members' independence (in appearance and fact) is crucial for the checks and balances of an AC to be effective and remain credible. As such, the committee should be composed of non-executive directors whose mandate and scope of responsibilities are clearly defined in the context of the overall governance framework of the central bank and documented in a Board-approved charter. Additionally, diversity of experience in the composition of the AC is important since the skillset achieved through broad perspectives on the committee promotes objectivity and skepticism (e.g., challenging "group think").

A related factor is the size of the committee which should strike a balance between a broader experience base and a focused oversight mechanism, as large committees may lose focus and dilute the individual responsibility of members.

Shortcomings identified by safeguards assessments include issues such as having senior staff of the central bank as active members on the AC (e.g., Deputy Governor, CAE). This practice gives rise to an inherent conflict of interest, since senior executives cannot be both judge and jury. The independence pre-requisite tends to be even more problematic in small countries where the availability of individuals who could fulfill such a role is scarce. In other cases, the independence of the AC is undermined by provisions on governance arrangements in the central bank's legal framework that prescribe membership requirements without due care to independence and adequate backgrounds.

ii. Knowledge and expertise.

A basic requirement is for at least one member to have a deep understanding/expertise in audit, accounting or financial reporting. However, given the increasing scope of the committee's mandate, a diverse skills mix is necessary to deal with the expanding range of issues, including IT, legal, and risk management. This should be complemented by a commitment to training to keep up with evolving practices, as well as access to external expertise (e.g., engagement of a financial or audit expert) if the issues at hand are beyond the capabilities of the committee.

The people factor – quality and competence of individuals on the AC – makes a significant difference to its performance. Issues encountered during safeguards assessments are often due to a lack of individuals in the country who are both independent and have the requisite professional expertise.

iii. Diligence and availability.

The AC members should be engaged with sufficient time devoted to fulfill their role, and should have regular meetings and sufficient time to prepare, including review of the agenda and supporting material. As such, the assessment of the AC also focuses on whether its members are taking their job seriously, prepare thoroughly, and ask pertinent questions as warranted.

iv. Oversight of external audit.

Close oversight through quality interactions with external auditors is necessary. The AC should be involved in the selection, appointment, and annual evaluation of the external auditors. The AC should be actively engaged throughout the external audit process (from planning to completion) and assess the performance and independence of the external auditors. The quality of the interaction with the external auditors is all the more important to foster an environment of trust, as it is necessary for the external auditors to be comfortable raising critical issues with the AC as well as for the committee to be equipped to ask critical questions and challenge the external auditors.

v. **Oversight of internal audit.**

Equally important, the AC should be closely engaged with internal audit through a functional reporting line and periodic reviews of internal audit plans, resources, performance and implementation of recommendations. These oversight modalities are reinforced through accountability mechanisms, including publication of annual activity reports and performance reviews (i.e., self-assessments if conducted).

When comparing oversight modalities between internal and external audit mechanisms, the safeguards experience indicates that oversight of external auditors tends to be better across assessments. This is not surprising as external auditors are subjected to more stringent quality reviews, both internally and externally, that generally results in this area being stronger. Robust oversight is a key ingredient of good governance and often leads to stronger control environments. As such, an AC can have a significant impact on the quality of the audit mechanisms. Equipped with adequate expertise, AC members can help identify capacity and process issues, and engage effectively with internal and external auditors.

Considered collectively, the above five characteristics are critical attributes for a high-performing AC and robust oversight. Safeguards findings indicate that the oversight role of the AC was weakened in instances where the AC mandate lacked coverage of important areas (e.g., its oversight scope limited to review of financial statements only) or did not have access to the right information (e.g., lack of periodic monitoring reports). Other factors behind the weaknesses in the AC oversight relate to low frequency of meetings, limited interaction with both internal and external auditors, and insufficient monitoring of key findings or follow-up on recommendations.

IV. ANALYSIS

Methodological Approach

Since little change was observed in the trends observed with respect to internal audit and oversight (see Section II), a detailed review of safeguards findings in these areas was conducted for the period April 2010-December 2017, covering 111 assessments (64 central banks). As laid out in Section III, when assessing central bank's internal audit functions and Audit Committees' oversight, safeguards work focuses on specific characteristics in these areas. The gravity of vulnerabilities noted in these influences the risk ratings and ultimately drives the trends.

In order to further unravel the underlying issues behind the trends, a methodological approach was adopted to identify the key factors that would determine the effectiveness of internal audit functions and Audit Committees. Two models for evaluating such effectiveness were developed using data extracted from the 111 assessments completed during the period (see Annex I for a description of the data extracted). In creating the models, not all characteristics were considered equally critical for a strong internal audit function or audit committee. As such, the characteristics were categorized and prioritized based on safeguards experience and professional judgement into four attributes (see Figure 2). In evaluating effectiveness, certain attributes were required, while others were weighed based on the gravity of issues noted and the overall impact it had. For example, in order for an internal audit function to be deemed effective the following attributes were considered to be necessities: (i) a strong mandate, (ii) sufficient capacity, and (iii) a riskbased audit methodology. Adequate reporting and monitoring practices was considered, as discussed above, but was not a pre-requisite. Similarly, a strong composition and sufficient expertise were necessary attributes for an AC to exercise proper oversight of internal and external audit, which taken together had an overall impact on the assessment of how the committee is fulfilling its role and responsibilities.

Using these two models, a review of each internal audit function and AC was completed for all 111 assessments. In cases where there was no internal audit function or AC, the assessment was not included in the analysis as it was deemed ineffective.

Figure 2. Attributes of Effective Internal Audit Functions and Audit Committees

• Mandate
• Capacity
• Risk-based methodology
• Reporting and monitoring

• Composition
• Expertise
• Oversight of internal audit
• Oversight of external audit

Validation

A two-step approach was adopted to validate the findings and ensure consistent application of the models (see Box 1).

Box 1: Validation Approach

Step1: Multiple regression analyses to confirm the correlation between the selected attributes and the conclusion on effectiveness for both the internal audit function and the audit committee. The regression analyses statistics were used to indicate how the variations in effectiveness were explained by the selected proxies.

Step 2: Comparison of the models' results with the risk ratings assigned in the safeguards reports to confirm accuracy and explain any anomalies.

To ensure the two models were consistently applied across the entire population, multiple regression analyses were ran on the data sets. While it was not expected that all attributes are perfectly correlated, the existence of a statistically significant relationship was important to confirm the attributes were directly related to the conclusion on effectiveness. Based on the multiple R values from the regression analyses statistics, a strong positive relationship was noted in both models. Specifically, the regression analyses found that 92 and 88 percent of the variation in internal audit functions' and Audit Committees' effectiveness, respectively, were explained by the attributes. See Annex II for the full regression analyses statistics for both models.

While the multiple regression analyses confirmed that statistically strong positive correlations existed, additional steps were taken to further validate the findings. To this end, the models' results for each internal audit function and AC was compared to the risk ratings assigned in these areas by the related safeguards assessments to identify any potential anomalies. The process of evaluating the effectiveness of internal audit functions and ACs involved some degree of professional judgment, specifically when considering those attributes that were not prerequisites (see above). In validating the models' conclusions, a number of inconsistencies were noted, which were further investigated by reviewing the full safeguards reports. In all cases, other

⁸ The multiple R value, also known as the coefficient of determination, is the percentage of the response variable variation, internal audit and audit committee effectiveness, that is explained by a linear model that includes all the attributes.

⁹ For internal audit functions, a comparison was made against the risk rating assigned to the internal audit area. Similarly, for ACs, a comparison was made against the risk rating assigned to the system of internal controls.

factors were found to justify the risk ratings and the models' results were confirmed to be accurate.¹⁰

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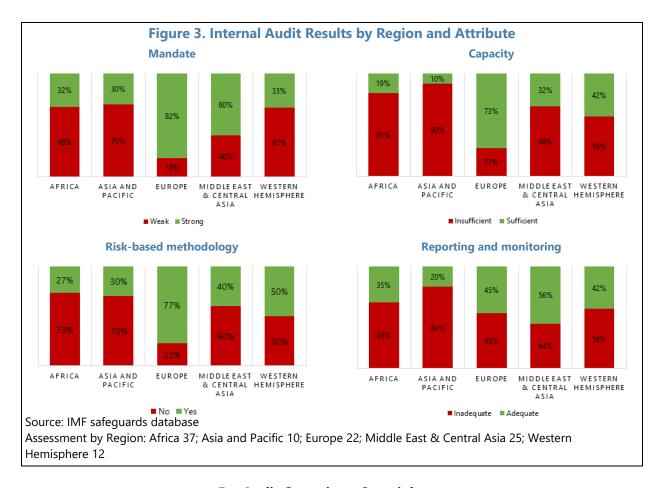
V. RESULTS

A. Internal Audit

Safeguards assessments during the period April 2010-December 2017 found that an internal audit function did not exist in only five central banks out of 64, and where it was established (106 assessments), 71 percent, i.e., about two out of every three, were found to be ineffective. Where internal audit functions were found to be ineffective, these conclusions were driven by the four main attributes adopted as proxies for effectiveness: (i) functions do not have a strong enough mandate with respect to the reporting lines in the institution and independence of their work (51 percent or 54 assessments); (ii) capacity is constrained primarily owing to staff competencies (65 percent or 69 assessments); (iii) audit methodology is not risk-based (57 percent or 60 assessments); and (iv) structural weaknesses in the systems for monitoring of recommendations and effecting remedial actions (58 percent or 62 assessments).

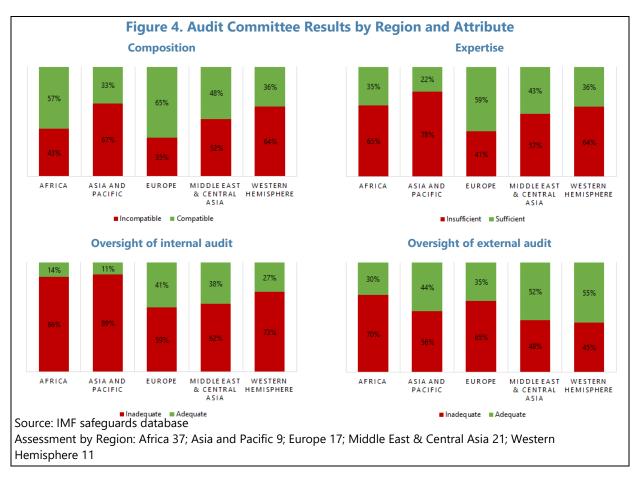
From a regional perspective, only Europe had relatively low issues, as compared to the other regions. See Figure 3 for a breakdown of the attributes by region. As a related finding, it was noted that the effectiveness of the internal audit function is significantly influenced by the existence of a strong AC charged with overseeing the function, which can have an impact on the quality of the internal audit outputs (see Section VI).

¹⁰ Out of 111 assessments, 15 assessments in internal audit and 22 assessments in systems of control had inconsistencies between the models' results and the validation test.



B. Audit Committee Oversight

Overall, safeguards assessments during the April 2010-December 2017 period found that an AC did not exist in 14 percent of the cases (16 assessments), and where it was established (95 assessments), 78 percent were found to be ineffective (86 assessments). While central banks have established ACs, most existed more in form than substance. The effectiveness of the AC was primarily undermined by inadequate composition (46 assessments or 48 percent) and capacity constraints in expertise and experience (57 assessments or 60 percent). It was also influenced by weak oversight of the internal (71 assessments or 75 percent) and external (57 assessments or 60 percent) audits. These observations were common across all regions (see Figure 4).



VI. CONCLUSION

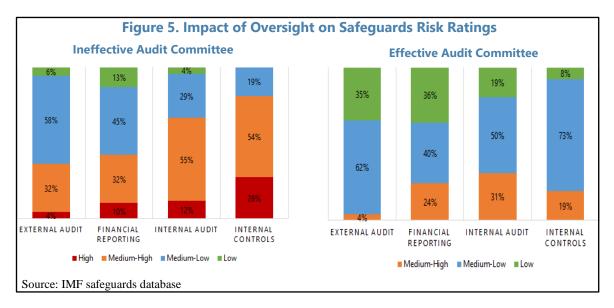
While assurance expectations on internal audit functions are increasing, many were found to have areas for improvement and challenges prevail. These mainly relate to limitations in capacity manifested in insufficient resources, both staffing levels and requisite skills, and training and professional certifications. Another hindering factor is that, at times, senior management does not fully utilize internal audit. Limited appreciation of the added value of this function can prevent internal audit from obtaining necessary resources and sponsorship to overcome the above limitations.

With these prevailing challenges, therefore, comes the need for stronger ownership. Internal audit functions should have authority and proper reporting lines to strengthen their independence, and be provided adequate resources to fulfill their mandate as an integral part of the "three lines of defense". Recruitment efforts and staff development should be a priority.

Going forward, collective efforts on possible solutions to address the above challenges are needed. From an IMF perspective, outreach on internal audit issues, including through ongoing collaboration with the central banking community to help raise capacity in this area, has become part of the safeguards approach since the 2015 review of the safeguards policy. This is also complemented by IMF technical assistance to provide remedial measures and help align internal audit functions with emerging leading practices. In addition, engagement within the central

banking community and active peer central bank dialogue between mature and developing internal audit functions could offer an opportune network from which to broker knowledge sharing and avenues to strengthen internal audit functions. Other initiatives to help build operational capabilities in central bank audit functions could include bilateral secondment and exchange programs, tailored capacity building programs, peer reviews, and specialized training. Similarly, central banks could benefit from further advocacy by the IIA to boost the profession, including through stronger regional networks for training and professional certifications.

The importance of strong oversight is evidenced by observed improvements in the risk profiles of central banks. To evaluate the importance of the AC, further analysis was made to contrast central banks with effective ACs (25 assessments) with those that are not (86 assessments) through comparison of the safeguards risk ratings. As shown in Figure 5, there is a remarkable difference where an effective AC was present as safeguards assessments in such cases found no high-risk ratings. The positive shift in the risk profile is particularly evident in the decrease of vulnerabilities by large orders of magnitude as observed in the drop in overall higher risks in the internal audit mechanism, from 67 (55 medium-high and 12 high ratings) to 31 (medium-high ratings) percent, and the system of internal controls, from 82 (54 medium-high and 28 high ratings) to 19 (medium-high ratings) percent.



Considering the above trends, it is evident that an AC has an important role in improvements of risk profiles of central banks, and its strong oversight not only can have a significant impact on the quality of the internal audit function, but on governance arrangements and the safeguards framework in general.

ANNEX I: DATA EXTRACTED FROM SAFEGUARDS REPORTS

Safeguards Report Data

Data Point	Description	Definitions
External Audit Rating	The safeguards report rating of the central bank's external audit mechanism	0 = Low; 1 = Medium-Low; 2 = Medium-High; 3 = High
Legal Rating	The safeguards report rating of the central bank's legal framework	0 = Low; 1 = Medium-Low; 2 = Medium-High; 3 = High
Financial Reporting Rating	The safeguards report rating of the central bank's financial reporting practices	0 = Low; 1 = Medium-Low; 2 = Medium-High; 3 = High
Internal Audit Rating	The safeguards report rating of the central bank's internal audit function	0 = Low; 1 = Medium-Low; 2 = Medium-High; 3 = High
Internal Controls Rating	The safeguards report rating of the central bank's internal control environment	0 = Low; 1 = Medium-Low; 2 = Medium-High; 3 = High

Internal Audit Data

Data Point	Description	Definitions
Does an Internal Audit Function	Captures whether the safeguards report noted an Internal Audit Function existed, or not	0 = No
Exist?	Captures whether the safeguards report noted air internal Addit runction existed, or not	1 = Yes
Does the Internal Audit Function	Captures whether the safeguards report noted issues with the mandate of the Internal	0 = No
have an Appropriate Mandate?	Audit Function (e.g., independence, incompatible activities)	1 = Yes
Does the Internal Audit Function	Captures whether the safeguards report noted capacity issues in the Internal Audit	0 = No
have Sufficient Capacity?	Function (e.g., skillset, staffing, experience, certifications, risk-based audit methodology)	1 = Yes
Does the Internal Audit Function	Captures whether the safeguards report noted the Internal Audit Function had a risk-based	0 = No
have a Risk-based Methodology?	methodology (e.g., whether audit planning was risk-based, covered high-risk areas)	1 = Yes
Does the Internal Audit Function	Captures whether the safeguards report identified weaknesses in monitoring /reporting by	
	the Internal Audit Function (e.g., regular reporting to Audit Committee; quality of	0 = No
have Adequate Monitoring /	reporting; adequate system for monitoring recommendations; follow-up on	1 = Yes
Reporting?	recommendations)	

Audit Committee Data

Data Point	Description	Definitions
Does an Audit Committee Exist?	Captures whether the safeguards report noted an Audit Committee existed, or not	0 = No 1 = Yes
Is the Audit Committee's Composition Appropriate?	Captures whether the safeguards report noted issues with the composition of the Audit Committee (e.g., members include executives/staff, not fully constituted)	0 = No 1 = Yes
Do Audit Committee Members have Sufficient Expertise?	Captures whether the safeguards report noted issues with the composition of the Audit Committee (e.g., members did not have accounting/auditing experience)	0 = No 1 = Yes
Does the Audit Committee Exert Strong Oversight on Internal Audit?	Captures whether the safeguards report identified weaknesses in the Audit Committee's oversight on the internal audit function	0 = No 1 = Yes
Does the Audit Committee Exert Strong Oversight on External Audit?	Captures whether the safeguards report identified weaknesses in the Audit Committee's oversight on the external audit mechanism	0 = No 1 = Yes

ANNEX II: MULTIPLE REGRESSION ANALYSIS OUTPUT

Regression Statistics - Internal Audit Effectiveness

Multiple R	0.9177
R Square	0.8422
Adjusted R Square	0.8346
Standard Error	0.1850
Observations	111

ANOVA

	df	SS	MS	F	Significance F
Regression	5	19.1799	3.8360	112.0435	1.85835544225333000000000000000000000000E-40
Residual	105	3.5948	0.0342		
Total	110	22.7748			

Statistic	Value	Description
Multiple R – Values between 0–	0.9177	Multiple R, also known as the coefficient of determination, is the percentage of the
1; the higher the better		response variable variation (Internal Audit Function Effectiveness) that is explained by a
		linear model that includes all the factors. Therefore, 92% of the variation in the Internal
		Audit Function's Effectiveness is explained by the factors captured.
R Square – Values between 0–	0.8422	R square measures how close the data are to the fitted regression line, based on the
1; the higher the better		multiple regression. In this case, the model explains 84% of the variability of the factors
		around the mean.
Adjusted R Square – Values	0.8346	Adjusted R Square is similar to R Square, except it assumes every factor explains the
between 0–1; the higher the		variation in the dependent variable (Internal Audit Effectiveness). Comparatively, R Square
better		explains the percentage of variation by only the independent factors that actually affect the
		dependent variable (Internal Audit Effectiveness). The more variables (factors) you have in
		your regression analysis the lower the Adjusted R Square, unless additional factors are
		closely correlated. Therefore, even when adjusting for the additional factors used in the
		multiple regression analysis, 83% of the variation of the factors around the mean are
		explained.
Significance F	0.0000	The Significance F value indicates the probability that the regression output could have
		been obtained by chance. A small Significance of F confirms the validity of the Regression
		output. Based on the multiple regression analysis the Significance of F is 0.

Regression Statistics – Audit Committee Effectiveness

Multiple R	0.8762
R Square	0.7677
Adjusted R Square	0.7566
Standard Error	0.2070
Observations	111

ANOVA

	df	SS	MS	F	Significance F
Regression	5	14.8699	2.9740	69.4017	0.0000000000000000000000000000000000000
Residual	105	4.4994	0.0429		
Total	110	19.3694			

Statistic	Value	Description
Multiple R – Values between 0– 1; the higher the better	0.8762	Multiple R, also known as the coefficient of determination, is the percentage of the response variable variation (Audit Committee Effectiveness) that is explained by a linear model that includes all the factors. Therefore, 88% of the variation in Audit Committee Effectiveness is explained by the factors captured.
R Square – Values between 0– 1; the higher the better	0.7677	R square measures how close the data are to the fitted regression line, based on the multiple regression. In this case, the model explains 77% of the variability of the factors around the mean.
Adjusted R Square – Values between 0–1; the higher the better	0.7566	Adjusted R Square is similar to R Square, except it assumes every factor explains the variation in the dependent variable (Audit Committee Effectiveness). Comparatively, R Square explains the percentage of variation by only the independent factors that actually affect the dependent variable (Audit Committee Effectiveness). The more variables (factors) you have in your regression analysis the lower the Adjusted R Square, unless additional factors are closely correlated. Therefore, even when adjusting for the additional factors used in the multiple regression analysis, 76% of the variation of the factors around the mean are explained.
Significance F	0.0000	The Significance F value indicates the probability that the regression output could have been obtained by chance. A small Significance of F confirms the validity of the Regression output. Based on the multiple regression analysis the Significance of F is 0.

ANNEX III: EXAMPLES OF VULNERABILITIES IN INTERNAL AUDIT

Mandate/Standing

- Positioning the internal audit function is not appropriately recognized by management or not at the right level of authority/hierarchy within the structure of the central bank to fulfill its mandate; the CAE is not at the same level as other Heads of Departments; restricted access to Management or Board; low acceptance of internal audit recommendations.
- Independence and oversight no dual reporting lines (the CAE does not report to the Board or Audit Committee); involvement in pre-approvals or operational responsibilities (e.g., sign-off on investment decisions, custody over cash); interference in determining scope of internal audit work, performance of engagements, and communication of results; audit plans are not approved by the Audit Committee, but rather by the Governor alone.
- The internal audit charter is not in line with the IIA standards.

Capacity

- Internal audit functions are not adequately staffed (vacant positions or not enough staff) or provided sufficient resources (e.g., technology tools; funding for training).
- Audits are not risk-based but rather inspection and compliance checks; audit plans do not always take into consideration whether the function has an adequate number of staff members to achieve the plan and whether staff have the required expertise.
- No coordination with other assurance functions such as risk management and compliance for audit planning and risk assessments.
- Internal audit staff lack professional certifications and the necessary background (accounting, auditing, financial management).
- No training, internal or external and no exposure to leading practices.
- Staff is not properly trained for the position previous experience does not match needs of internal audit function; lacking certain skills, such as, IT, banking operations, reserves management, or auditing/accounting.
- Difficulties in recruiting staff with the correct skills; skills are too expensive, or lack of capacity and lack of internal audit personnel within the country. Challenges in retention of staff due to strong competition, especially in small countries/markets.
- Lack of adherence to the IIA standards as a benchmark leading practices.
- Lack of sufficient support to boost professional qualifications (e.g., presence of a local IIA chapter, guidance, study guides, material).

Reporting and Monitoring

- Lack of periodic reporting on achievement of the audit plan and audit results to the Audit Committee to facilitate assessing progress.
- Long outstanding recommendations not being followed up.
- Tainted reporting lines communication of audit results to the Governor only, or to the Audit Committee via the Governor.
- Lack of appropriate tools/systems to facilitate a systematic follow-up on recommendations.
- Absence of quality assurance and improvement programs or lack of external reviews as required by the
- Lack of action plans overseen by the Audit Committee to monitor implementation of recommendations resulting from the external quality review.