PROCEEDING INTERNATIONAL CONFERENCE ON RELIGIOUS & CULTURAL SCIENCES
PENELEH RESEARCH INSTITUTE
E-ISSN : 3024-2364
VOLUME 7, SEPTEMBER 2025

INCRECS

COSO INTEGRATED FRAMEWORK ANALYSIS AS AN INTERNAL CONTROL ASSESSMENT MATRIX IN GOVERNMENT AUDITS

Syifaatuz Zadida Ilyas

Widya Gama University Malang

E-mail:syifazadida@gmail.com

ABSTRACT

Government audits are a crucial mechanism for overseeing the use of fiscal funds, preventing official corruption, and improving government performance. The 2013 COSO Integrated Framework will help government audits identify potential weaknesses in the design of the internal control environment and better calibrate monitoring efforts and control activities with the relevant risks of material misstatement. While each component of the COSO framework encompasses numerous controls, government audits focus on controls designed to prevent and detect material misstatements in the financial statements.

Keywords: COSO Framework, Internal Control, Government Audit

INTRODUCTION

The creation of clean governance is a public demand, ultimately requiring effective oversight and internal control in managing state finances. Government audits are a crucial mechanism for overseeing the use of fiscal funds, preventing official corruption, and improving government performance.(Cao, Zhang, Qi, Yang, & Li, 2022)Daily audit work in government institutions plays a crucial role, effectively enhancing the management capacity of audited units, thereby creating socio-economic benefits. Therefore, to control audit activities in the daily work of the government, it is crucial to control what is called the government audit performance theory. The objectives of audit activities are based on predetermined environmental conditions (policies, laws and regulations) that reflect specific reviews. On this basis, many foreign experts have conducted in-depth research on cybernetics and obtained remarkable results, such as: the theory of supreme control, the feasibility system model, and others. Widely used in many areas of audit control theory, the theory of "audit immunity" states that the audit process plays a key role in immunity. And on this basis, this article presents the overall internal control framework and COSO analysis.(Ma & Ma, 2011).

The concept of internal control using the COSO Framework has been widely adopted by various business organizations throughout the world, including companies in Indonesia. In addition, the use of the COSO framework in Indonesia has also become a successful framework carried out by the Financial Services Authority (OJK) in detecting several accounting fraud scandals committed by companies such as PT Sari Husada Tbk, PT Great River Internasional Tbk, PT Agis Tbk and Katarina Utama Tbk. This

success can be an inspiration for the government in building government audit performance controls using the COSO framework. Internal control based on COSO includes five components, namely (1) control environment, (2) risk assessment, (3) control activities, (4) information and communication, (5) supervision. In this article, compliance with COSO is a framework that reflects the relationship between objectives (goals), internal control components, the form of the organization's structure and the involvement of all components within the organization.(Julisar, 2016). In addition to the integration of the COSO Framework, the regulatory body has also issued a legal basis related to the implementation of the government's internal control system in Government Regulation (PP) Number 60 of 2008.

Following the 2008 global financial crisis, it is crucial for public sector organizations to pay attention to their governance. Applying the COSO framework as an internal control assessment matrix in government audits is expected to achieve good governance. Good governance aims to create transparent, open, accountable, and legally compliant governance. The role of government auditors in helping ensure governance infrastructure is crucial, especially in developing countries that have transitioned to the New Public Management (NPM) concept.(Ferry, Zakaria, Zakaria, & Slack, 2017).

LITERATURE REVIEW

COSO Framework

The Committee of Sponsoring Organizations of the Treadway Commission (COSO) is a joint initiative of five private sector organizations formed in 1985 (American Accounting Association, American Institute of CPAs, Financial Executives International, The Association of Accountants and Financial Professionals in Business, and The Institute of Internal Auditors) and is dedicated to providing thought leadership through the development of frameworks and guidance on enterprise risk management, internal control and fraud prevention.(Fajar & Rusmana, 2018). In the COSO framework there are five components, namely.

Figure 1. Five Components of the COSO Framework

Source: COSO (2013)

1. *Control Environment*(control environment)

   The control environment is the attitude toward internal control and the perception of control established and maintained by an organization's management and employees. It is a product of management administration, specifically its philosophy, style, and supportive attitudes, as well as the competence, moral values, integrity, and ethics of the people within the organization. The control environment is also influenced by the organization's structure and accountability relationships. The control environment has a broad influence on an organization's decisions and operations and forms the foundation for the entire internal control system. If this foundation is not solid and the control environment is not positive, the overall internal control system will not be as effective as desired.

2. *Risk Assessment*(risk assessment)

   Risks must be assessed and managed through an organization-wide effort to identify, evaluate, and monitor events that threaten the achievement of the organization's mission. For each identified risk, management must decide whether to accept the risk, reduce the risk to an acceptable level, or avoid the risk.

3. *Control Activities*(control activities)

   Control activities are tools—both manual and automated—that help identify, prevent, or mitigate risks that could hinder the achievement of organizational objectives. Management must establish effective and efficient control activities. When designing and implementing control activities, management should strive to achieve maximum benefits at the lowest possible cost.

4. *Information and Communication*(information and communication)

   Information and Communication is the exchange of useful information between people and organizations to support decisions and coordinate activities. Information must be communicated to organizational members who need it in a form and timeframe that helps them carry out their responsibilities.

5. *Monitoring Activities (*Supervisory activities)

   Monitoring is the review of an organization's activities and transactions to assess the quality of performance over time and to determine whether controls are effective. The central government should focus monitoring efforts on internal controls and the achievement of the organization's mission. For monitoring to be most effective, all employees need to understand the organization's mission, objectives, risk tolerance levels, and their own responsibilities.

In each component of the COSO framework, there are a total of seventeen (17) principles, including:

Table 1. Summary of COSO internal control components and principles

Component	Principle
Control environment	Principle 1: The organization demonstrates a commitment to integrity and ethical values. Principle 2: The board of directors demonstrates management independence and provides oversight of the development and performance of internal controls.

	Principle 3: Management establishes, with board oversight, the structure, reporting lines, and appropriate authority and responsibility to achieve the objectives. Principle 4: The organization demonstrates a commitment to attracting, developing, and retaining competent individuals to align with its objectives. Principle 5: The organization holds individuals accountable for their internal control responsibilities in achieving objectives.
Risk Assessment	Principle 6: The organization establishes objectives with sufficient clarity to enable the identification and assessment of risks associated with the objectives. Principle 7: The organization identifies risks to the achievement of its objectives across the entity and analyzes the risks as a basis for determining how the risks should be managed. Principle 8: The organization considers the potential for fraud in assessing risks to the achievement of objectives. Principle 9: The organization identifies and assesses changes that could have a significant impact on the system of internal control.
Control activities	Principle 10: The organization selects and develops control activities that contribute to mitigating risks to achieving objectives to an acceptable level. Principle 11: The organization selects and develops general control activities over technology to support the achievement of objectives. Principle 12: The organization implements control activities as embodied in policies that establish what is expected and in relevant procedures to effect those policies.
Information and Communication	Principle 13: The organization obtains or generates and uses relevant, quality information to support the functioning of other components of internal control. Principle 14: The organization communicates internally information, including internal control objectives and responsibilities, necessary to support the functioning of other internal control components. Principle 15: The organization communicates with external parties regarding matters that affect the functioning of other internal control components.
Supervision activities	Principle 16: The organization selects, develops, and performs ongoing and/or separate evaluations to determine whether the components of internal control are present and functioning. Principle 17: The organization evaluates and communicates internal control deficiencies in a timely manner to those responsible for taking corrective action, including senior management and the board of directors, as appropriate.

Each component in the COSO framework contains many controls, but government audits concentrate on controls designed to prevent and detect material misstatements in the financial statements.

Internal Control

The Committee of Sponsoring Organizations of the Treadway Commission (1992) defines internal control as a process, performed by the board of directors, management, and other personnel within an entity, designed to provide reasonable assurance regarding the achievement of objectives in the following categories:

- Operational objectives: this also relates to operational and financial performance targets, as well as protecting assets from loss.
- Reporting objectives: relate to internal and external financial and non-financial reporting which includes reliability, timeliness, transparency.
- Compliance objectives: relate to compliance with laws and regulations to which the entity is subject.

The definition is similar to(Thabit, Solaimanzadah, & Al-Abood, 2017)Internal control is defined as "the integration of activities, plans, attitudes, policies, and efforts of people within an organization working together to provide reasonable assurance that the organization will achieve its objectives and mission." An effective control system is an important component because it can be a way to ensure that the goals and objectives of an organization will be met. Internal control is focused on achieving the mission of an organization. Therefore, it is important for an organization to have a clearly stated mission that is known and understood by everyone in the organization.

Every member of a government agency has a role in the internal control system. Internal control relies on people. Individual roles in the internal control system vary widely across organizations. If the individuals responsible for control activities are not attentive to their duties, the internal control system will not be effective. Internal control plays a critical role in ensuring that government auditors have the necessary skills and capacity to conduct audits of government performance.

In the internal control system compiled by COSO, it emphasizes three things.(Omposunggu & Solomon, 2019), that is :

a) The internal control system is a component of an organization's operations that is used continuously.

   An internal control system is a series of actions and activities that continuously occur throughout an organization. It is not a separate entity, but should be considered an integral part of any system used by management. This system is integrated with the organization's operational processes and activities and serves as the basis for carrying out these activities. To be effective, an internal control system must be built into the organization's infrastructure and become part of the organization's essence, known as "built-in."

b) Internal control systems are influenced by humans.

   The internal control system is influenced by management and other personnel within an organization. This system achieves its objectives through the management of funds and communication. People within the organization set objectives and create control mechanisms. However, organizations often fail to implement sound control guidelines. As a result, the internal control system fails to make a positive contribution. The effectiveness of this system depends on the people who implement it. Management is responsible for the operation of the control system, including setting objectives, designing and implementing control mechanisms, and monitoring and evaluating them. Employees within the organization play a crucial role in implementing the internal control system effectively.

c) Internal control provides only reasonable assurance, not absolute assurance.
An internal control system should be based on cost-benefit considerations. Even a good system cannot guarantee the achievement of organizational goals due to limitations such as human error, faulty judgment, and collusion.

METHOD

In this study, the author used the Systematic Literature Review (SLR) method to identify, analyze, evaluate, and interpret the results of empirical studies. The SLR method was used for literature investigation with a quantitative descriptive approach, with the aim of providing a strong foundation based on previous research on mathematical proof. The process includes data collection and analysis, as well as drawing conclusions.(Winda, Hasanah, Dinda, & Fitri, 2024)The results of previous research will be evaluated by the researcher through a review and identification of research articles. In collecting data on the COSO analysis as an internal control assessment matrix, the researcher used ten reviewed articles. These articles were taken from national and international journals published between 2014 and 2024 by the Elsevier Scopus and Google Scholar databases. The ten articles were used in a tabulation. The analysis and tabulation included the name of the researcher, year of publication, journal, and research results. The articles were evaluated and compared to reach a conclusion. The research results serve as the basis for analyzing the application of the COSO framework as an internal control assessment matrix in government audits.

RESULTS AND DISCUSSION

Descriptive Analysis of Research Results from Literature Review (SLR)

The following are several research articles on the application of the COSO framework as a framework for assessing internal control in various entities.

Table 2. Descriptive Analysis of Literature

NO	Author Name and Journal Name	Title	Research result
1	(Lawson, Muriel, & Sanders, 2017) *Research in Accounting Regulation*	*A survey on firms' implementation of COSO's 2013 Internal Control – Integrated Framework*	Many companies began implementing the COSO framework in 2014, the 17 principles contained in COSO 2013 are seen as a set of rules for achieving effective internal control. The research results in the article also stated that changes in the company's IT environment and activities were cited as one of the important reasons for updating the COSO framework, this framework is not only used for external financial reporting purposes, companies also apply this framework for non-financial, operational, and compliance purposes.
2	(Martin, Sanders, & Scalan, 2014)	*The potential impact of COSO internal control integrated framework*	This research identified a COSO revision that explicitly lists 17 principles related to each of the five existing internal control

	Research in Accounting Regulation	*revision on internal audit structured SOX work programs*	components. The revised tool illustrated can be viewed as an additional requirement that needs to be incorporated into an existing structured audit work program. In the revised framework, fraud is now singled out and included as a principle mentioned in the Risk Assessment component, thereby increasing the importance of fraud attention.
3	(Park, Qin, Seidel, & Zhou, 2021) *J. Account. Public Policy*	*Determinants and consequences of noncompliance with the 2013 COSO framework*	This article shows that resource constraints, financial distress, and a weak internal control environment are factors that influence non-compliance with the 2013 COSO framework. The consequences of non-compliance with the 2013 COSO framework indicate that investors view quarterly earnings surprises from non-compliant companies as less credible and that regulators increase their scrutiny of non-compliant companies' financial statements upon evidence of non-compliance. It is also explained that accounting conservatism increases in compliant companies, compared to non-compliant companies.
4	(Krisdianti & Supriatna, 2022) *Indonesian Accounting Literacy Journal*	Evaluation of the Implementation of Internal Control Systems in Preventing Inventory Fraud Using the COSO Framework (Case Study of the Limarasa Coffee Shop MSME in Bandung)	The MSME has implemented an internal control system for inventory based on the COSO framework, but there are several elements of internal control that have not been implemented, thus opening up opportunities for inventory fraud, namely: inappropriate placement of HR, no separation of functions, lack of supervision of inventory, no security mechanism for inventory, and errors in stocktaking that cause inefficiency in inventory recording.
5	(Farah, Islam, Tadesse, & McCumber, 2024) *Advances in Accounting*	*Impact of audit committee social capital on the adoption of COSO 2013*	The article examines the relationship between audit social capital and the implementation of the COSO 2013 internal control framework. The results show that organizations with well-connected audit committees are more likely to adopt COSO 2013 and do so in a timely manner. Well-connected audit committees have information advantages and reputational concerns that encourage them to learn more about industry best practices and adopt them in their own organizations.
6	(Rupley, 2024) *Advances in Accounting*	*Discussion of "Impact of Audit Committee Social Capital on the Adoption of COSO 2013"*	Audit committee connectivity is positively related to the implementation of the COSO 2013 framework because this network provides a channel for information flow using shared best practices. The risk of reporting failure or reputational issues may motivate implementation.

			COSO Internal Control Framework 2013.
7	(Hayne & Free, 2014) *Accounting, Organizations and Society*	*Hybridized professional groups and institutional work: COSO and the rise of enterprise risk management*	In this article, the COSO framework is seen as an interesting innovation in terms of Enterprise Risk Management. In managing risk, the COSO framework identifies eight processes in managing risk, namely (1) internal environment, (2) objective setting, (3) event identification, (4) risk assessment, (5) risk response, (6) control activities, (7) information & communication, (8) monitoring.
8	(Nabella, 2024) Journal Syntax Idea	Risk Management: Fraud Detection through Anti-Fraud Strategies	Internal control and risk management contribute to the implementation of good corporate governance (GCG). Without risk management, the internal control system will be weak. Conversely, the control aspects of GCG are less effective without an internal control system.
9	(Ebaya, Qin, & Elsyaed, 2024) *Economics Letters*	*Female board members, financial constraints, and internal control quality: New insights following COSO's 2013 framework*	In the article there are research results which state that reducing financial constraints plays a mediating role in the relationship between the role of women and the implementation of COSO 2013 in an entity.
10	(Yushu, Zongkeng, & Rui, 2024) *Finance Research Letters*	*Disclosure of Internal Control Evaluation Reports of Chinese Enterprises: History, Problems and Strategies*	This article describes several shortcomings that can lead to weaknesses in the quality and reliability of reports, including reporting delays, incompleteness, inconsistency, and non-standardized evaluation criteria. A conceptual framework and standardized reporting protocols are needed to improve disclosure quality. Therefore, this study highlights the critical role of enhanced internal control disclosures in advancing corporate governance and integrity.

From the articles above, which have been used as material for the Literature Review (SLR), several insights can be gleaned, namely, that in implementing internal control based on the COSO framework, it is also crucial to pay attention to several factors that can cause inefficient internal control. As stated in the article(Krisdianti & Supriatna, 2022)The implementation of COSO internal controls is ineffective due to inappropriate human resource allocation. This can be a valuable assessment for government agencies in developing internal controls, namely by assigning staff according to their educational background, expertise, and skills. Furthermore, to maintain HR control, government agencies can also conduct training programs to improve staff expertise, skills, and performance in assigned tasks.

The adoption of the 2013 COSO framework enables government agencies to effectively design, implement, and reevaluate internal controls related to operations, reporting, and compliance objectives. The transition process to the 2013 COSO framework will help government audits identify potential

weaknesses in the design of the internal control environment and better calibrate monitoring efforts and control activities with the relevant risks of material misstatement. The adoption of the COSO internal control framework has the influence of the audit committee's social capital.(Farah, Islam, Tadesse, & McCumber, 2024), organizations with well-connected audit committees are more likely to adopt COSO 2013 and do so in a timely manner. Well-connected audit committees have information advantages and reputational concerns that encourage them to learn more about industry best practices and adopt them in their own organizations. In addition to the influence of social capital on audit committees, the implementation of the COSO 2013 framework also depends on Information Technology.

According to the research results from(Martin, Sanders, & Scalan, 2014)who stated that the transition of the 17 principles of the COSO framework needs to be incorporated into audit procedures, elevating the fraud risk assessment to explicit principles. Fraud involves strategic deception by perpetrators who may be aware of the procedures in a structured program. He noted that appropriate responses to fraud risks often require auditors to design tailored tests beyond those contained in the structured program. This means that a stand-alone structured audit program may not be sufficient to detect fraud if a fraud situation exists. Typically, to detect fraud, auditors need to perform steps not outlined in the structured audit program. The freedom to perform additional steps as deemed necessary is one of the characteristics of internal auditors that puts them in an advantageous position in detecting fraud. A structured audit program can limit government internal auditors and reduce the scope of internal audit, and the impact can be a reduction in overall fraud detection by the internal audit department. The revised tools illustrated can be viewed as additional requirements that need to be incorporated into existing structured audit work programs. Improving internal control disclosures can also help organizations achieve good governance.

In addition to being used as an internal control assessment matrix by government audits, the COSO framework can also be used as a mechanism for auditors to manage the risk of fraud. The Committee of Sponsoring Organizations of the Treadway Commission (COSO) and AS/NZS 4360:2004 state that risk management is an element or part of the overall control system. "Controls are existing processes, devices, practices, or other actions that act to minimize negative risks or enhance positive opportunities."(Ryad & Suarna, 2016)This has been done by the Higher Education Funding Council for England (HEFCE) and, more recently, the Quality Assurance Agency (QAA), which uses risk-based regulation as a mechanism to monitor the management and internal control of its higher education institutions. The university has a dedicated high-level risk and audit committee, as well as a monitoring and control system to oversee its risk management process. In essence, in addition to disclosing the assessment of a financial report, the audit is also tasked with auditing compliance and providing recommendations to government management for improvements to the internal control system.(Selfiani, 2024). In addition, according to(Eulerich & Lenz, 2020)The audit role consists of three roles, namely (1) GRC Partner, ensuring that an existing risk control system has been implemented properly, (2) Trusted advisor, creating value through the provision of consulting services that can improve overall company performance, (3) value driver, maximizing added value by focusing on alignment and company strategy. Therefore, as a provider of audit services for both internal control and

risk management, auditors are obliged to ensure that the focus of government institutions is aligned with the focus of government management in achieving organizational goals. Auditors must master the risk management framework, identify risks, and conduct risk mitigation evaluations. By implementing risk management, public trust in government financial reports can be increased and audit risk can also be reduced.

CONCLUSION

This article presents a comprehensive analysis of several indicators within the COSO framework that can be used as a government auditor's assessment matrix in disclosing compliance with internal controls. The transition to the 2013 COSO framework will help government audits identify potential weaknesses in the design of the internal control environment and better calibrate monitoring efforts and control activities with the relevant risks of material misstatement. The COSO framework can also be used as a framework for risk management. A risk management framework is useful for ensuring that the focus of government agencies is aligned with the government's vision and mission. Implementing risk management can increase public confidence in government financial reports and also reduce audit risk. This article also highlights factors that can be opportunities and obstacles in implementing the COSO framework.

BIBLIOGRAPHY

Cao, H., Zhang, L., Qi, Y., Yang, Z., & Li, X. (2022). Government auditing and environmental governance: Evidence from China's auditing system reform. Environmental Impact Assessment Review.

Commission, C.o. (1992). International Control Integrated Framework. Jersey City: AICPA Harborside Financial Center.

Ebaya, A., Qin, X., & Elsyaed, M. (2024). Female board members, financial constraints, and internal control quality: New insights following COSO's 2013 framework. Economic Letters, 111-446.

Eulerich, M., & Lenz, R. (2020). Defining, Measuring, and Communicating of Internal Audit. Internal Audit Foundation.

Fajar, I., & Rusmana, O. (2018). EVALUATION OF THE IMPLEMENTATION OF BRI'S INTERNAL CONTROL SYSTEM WITH THE COSO FRAMEWORK. Journal of Economics, Business, and Accounting.

Farah, N., Islam, M.S., Tadesse, A., & McCumber, W. (2024). Impact of audit committee social capital on the adoption of COSO 2013. Advances in Accounting.

Ferry, L., Zakaria, Z., Zakaria, Z., & Slack, R. (2017). Watchdogs, helpers or protectors? – Internal auditing in Malaysian Local Government. Accounting Forum, 375-389.

Gustia, N. (2014). THE EFFECT OF AUDITOR INDEPENDENCE, PROFESSIONAL ETHICS, ORGANIZATIONAL COMMITMENT, AND LEADERSHIP STYLE ON GOVERNMENT AUDITOR PERFORMANCE. Journal of Accounting.

Hayne, C., & Free, C. (2014). Hybridized professional groups and institutional work: COSO and the rise of enterprise risk management. Accounting, Organizations and Society, 309-330.

Julisar. (2016). Implementation of COSO, GCG Implementation in Information Technology-Based Companies to Achieve Quality Operational and Financial Performance. Tirtayasa Ekonomika.

Krisdianti, D., & Supriatna, I. (2022). Evaluation of the Implementation of Internal Control Systems in Preventing Inventory Fraud Using the COSO Framework (Case Study of the Limarasa Coffee Shop MSME in Bandung). Indonesian Accounting Literacy Journal, 422-435.

Lawson, B. P., Muriel, L., & Sanders, P. R. (2017). A survey on firms' implementation of COSO's 2013 Internal Control–Integrated Framework. Research in Accounting Regulation, 30-43.

Ma, J., & Ma, C. (2011). Factor Analysis Based On The COSO Framework And The Government Audit Performance Of Control Theory. Procedia Engineering, 5584-5589.

Martin, K., Sanders, E., & Scalan, G. (2014). The potential impact of COSO internal control integrated framework revision on internal audit structured SOX work programs. Research in Accounting Regulation, 110-117.

Nabella, T. (2024). Risk Management: Fraud Detection Through Anti-Fraud Strategies. Journal Syntax Idea.

Omposunggu, SG, & Salomo, RV (2019). Analysis of the Implementation of the Government Internal Control System in Indonesia. Scientific Journal of Public Administration.

Park, K., Qin, J., Seidel, T., & Zhou, J. (2021). Determinants and consequences of noncompliance with the 2013 COSO framework. J. Accounts. Public Policy.

Robbins, S. (2008). Organizational Behavior: Concepts, Controversies, Applications. Indonesian Edition. Jakarta: PT Prenhallindo.

Rupley, K. (2024). Discussion of "Impact of Audit Committee Social Capital on the Adoption of COSO 2013". Advances in Accounting.

Ryad, A., & Suarna, IF (2016). RISK ELEMENTS IN PRIVATE HIGHER EDUCATION MANAGEMENT. researchgate.

Sari, AM, & Khudri, TM (2024). EVALUATION OF THE ROLE OF INTERNAL AUDIT IN REPUTATION RISK MANAGEMENT. MEA Scientific Journal (Management, Economics, and Accounting).

Selfiani. (2024). Auditor Profession (Government in Indonesia). Cirebon: CV Green Publisher Indonesia.

Thabit, TH, Solaimanzadah, A., & Al-Abood, MT (2017). The Effectiveness of COSO Framework to Evaluate Internal Control Systems: The Case of Kurdistan Companies. Cihan International Journal of Social Science.

Winda, Hasanah, RU, Dinda, & Fitri, AS (2024). Systematic Literature Review (SLR): Students' Mathematical Proof Ability. Mathematicaland Data Analytics.

Yohana, VR (2024). THE EFFECT OF SUPERVISION AND WORK MOTIVATION ON GOVERNMENT AUDITOR PERFORMANCE (Study at BPKP Representative Office of North Sumatra Province). HKBP Nommensen University Repository.

Yushu, K., Zongkeng, L., & Rui, L. (2024). Disclosure of Internal Control Evaluation Reports of Chinese Enterprises: History, Problems and Strategies. Finance Research Letters. doi:https://doi.org/10.1016/j.frl.2024.105642