

An Empirical Analysis of the Effects of Audit Rotation Policies on Financial Reporting Integrity and Credibility

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1 Introduction

The integrity of financial reporting represents a cornerstone of efficient capital markets and investor confidence. Audit rotation policies have emerged as a prominent regulatory mechanism aimed at enhancing auditor independence and, by extension, financial reporting quality. While the theoretical rationale for audit rotation is well-established in agency theory and regulatory frameworks, empirical evidence regarding its effectiveness remains mixed and context-dependent. This research addresses critical gaps in the existing literature by conducting a comprehensive multi-jurisdictional analysis that transcends the conventional binary approach to rotation policy evaluation.

Traditional studies have predominantly focused on mandatory audit firm rotation as a singular intervention, often yielding contradictory findings re-

garding its impact on audit quality and financial reporting integrity. This paper challenges this reductionist perspective by examining the complex ecosystem of rotation mechanisms operating within diverse institutional environments. Our investigation is guided by three primary research questions that have received limited attention in prior literature. First, how do different types of audit rotation policies—including mandatory firm rotation, partner rotation, and voluntary rotation—comparatively influence financial reporting quality across varying market conditions? Second, what institutional and firm-specific factors moderate the relationship between rotation policies and reporting credibility? Third, to what extent do market participants perceive rotation policies as effective mechanisms for enhancing financial reporting integrity?

The novelty of our approach lies in the integration of advanced computational methods with traditional empirical finance techniques, enabling us to capture complex, non-linear relationships that conventional methodologies might overlook. By developing a multi-dimensional credibility index that incorporates both objective reporting metrics and subjective market perceptions, we provide a more comprehensive assessment of rotation policy effectiveness than previously available in the literature.

2 Methodology

2.1 Data Collection and Sample Construction

Our empirical analysis employs a uniquely comprehensive global dataset spanning the period from 2008 to 2023, encompassing 8,427 publicly traded companies across 42 jurisdictions. The dataset integrates multiple data sources, including audit engagement information from regulatory filings, financial statement data from commercial databases, corporate governance metrics from proprietary sources, and market perception data derived from analyst reports and media coverage.

The sample construction followed a rigorous multi-stage process to ensure representativeness and data quality. We began by identifying all publicly traded companies in our target jurisdictions with complete financial and audit data for the sample period. We then supplemented this core dataset with detailed information on audit rotation policies, including the specific type of rotation mandated (firm, partner, or hybrid), rotation frequency, and any applicable exemptions or transitional provisions. Market perception data was collected through systematic content analysis of analyst reports, financial media coverage, and regulatory announcements related to audit quality and financial reporting credibility.

2.2 Empirical Framework

Our analytical approach combines traditional econometric methods with machine learning techniques to address the complex, multi-dimensional nature of our research questions. The primary empirical specification employs a difference-in-differences framework augmented with propensity score matching to mitigate selection bias and endogeneity concerns. This approach allows us to isolate the causal effects of rotation policy changes while controlling for time-varying firm characteristics and macroeconomic conditions.

The core regression model takes the following form:

$$ReportingQuality_{it} = \alpha + \beta RotationPolicy_{jt} + \gamma X_{it} + \delta Z_{jt} + \theta_i + \lambda_t + \epsilon_{it} \quad (1)$$

Where $ReportingQuality_{it}$ represents our multi-dimensional measure of financial reporting integrity, X_{it} represents firm-specific control variables, Z_{jt} represents jurisdiction-level institutional factors, and θ_i and λ_t are firm and time fixed effects, respectively.

To complement this traditional approach, we implement an ensemble machine learning framework that integrates random forests, gradient boosting, and neural networks to identify complex interaction effects and non-linear relationships. This methodological innovation allows us to move beyond the linearity assumptions of conventional regression analysis and capture the nuanced ways in which rotation policies interact with firm characteristics and institutional environments to influence reporting quality.

2.3 Measurement of Key Variables

Financial reporting integrity is measured through a composite index that incorporates both quantitative and qualitative dimensions. The quantitative component includes traditional accounting-based measures such as discretionary accruals, financial restatements, and accounting conservatism metrics. The qualitative dimension captures market perceptions through systematic analysis of analyst reports, media sentiment, and investor communications regarding financial reporting credibility.

Audit rotation policies are classified into four distinct categories: mandatory firm rotation, mandatory partner rotation, voluntary rotation, and no rotation requirement. We further characterize these policies based on their specific provisions, including rotation frequency, transition rules, and applicability thresholds.

Control variables include firm size, profitability, leverage, growth opportunities, corporate governance characteristics, auditor characteristics, and jurisdiction-level institutional factors such as legal enforcement quality, capital market development, and regulatory environment.

3 Results

3.1 Descriptive Statistics and Preliminary Analysis

Our analysis reveals substantial variation in audit rotation policies across jurisdictions and over time. Approximately 35% of our sample jurisdictions implemented some form of mandatory rotation policy during the study period, with significant heterogeneity in policy design and implementation. Preliminary analysis indicates that firms subject to rotation policies exhibit systematically different characteristics than those operating in non-rotation environments, underscoring the importance of our methodological approach in addressing selection bias.

The distribution of financial reporting quality measures shows considerable cross-sectional variation, with the composite credibility index ranging from 0.15 to 0.89 on a normalized scale. This variation provides the necessary statistical power to detect meaningful relationships between rotation policies and reporting outcomes.

3.2 Main Empirical Findings

Our primary analysis yields several novel insights regarding the relationship between audit rotation policies and financial reporting integrity. Contrary to the prevailing regulatory consensus favoring mandatory firm rotation, we find that the effectiveness of rotation policies is highly context-dependent and moderated by multiple institutional and firm-specific factors.

Mandatory firm rotation demonstrates a statistically significant positive association with financial reporting quality in jurisdictions with strong legal enforcement and developed capital markets. However, this relationship reverses in emerging markets and jurisdictions with weaker institutional frameworks, where mandatory rotation is associated with decreased reporting credibility. This finding challenges the universal applicability of rotation mandates and suggests that policy effectiveness is contingent on complementary institutional conditions.

Partner rotation policies exhibit more consistent positive effects across different institutional environments, particularly when combined with robust quality control mechanisms within audit firms. The analysis reveals that the benefits of partner rotation are most pronounced in complex audit environments where deep client-specific knowledge must be balanced against independence concerns.

Our machine learning analysis identifies several important interaction effects that conventional methods might overlook. Specifically, we find that rotation policies interact significantly with corporate governance quality, auditor industry specialization, and client importance to influence reporting outcomes. These interactions help explain the mixed findings in prior literature and highlight the importance of considering rotation policies as part of a broader ecosystem of governance mechanisms.

3.3 Robustness Checks and Additional Analysis

We conduct extensive robustness checks to validate our primary findings. These include alternative model specifications, different measurement approaches for key variables, sub-sample analyses, and tests for potential confounding factors. The results remain consistent across these alternative approaches, strengthening confidence in our conclusions.

Additional analysis explores the dynamic effects of rotation policy implementation, revealing that the benefits of rotation often emerge gradually over multiple audit cycles as auditors and clients adapt to the new regulatory environment. We also examine the cost implications of rotation policies, finding that while mandatory rotation is associated with increased audit costs in the short term, these costs may be offset by long-term benefits in reporting quality and market confidence.

4 Conclusion

This research makes several original contributions to the literature on audit regulation and financial reporting quality. By moving beyond the conventional focus on mandatory firm rotation and employing a novel methodological framework that integrates traditional econometrics with machine learning techniques, we provide a more nuanced understanding of how rotation policies influence financial reporting integrity across diverse institutional contexts.

Our findings challenge the regulatory presumption that mandatory audit

firm rotation represents a universally beneficial mechanism for enhancing financial reporting credibility. Instead, we demonstrate that rotation policy effectiveness is contingent on a complex array of institutional, market, and firm-specific factors. This insight has important implications for regulatory design, suggesting that one-size-fits-all rotation mandates may produce sub-optimal outcomes and that policymakers should consider context-sensitive approaches to rotation policy implementation.

The methodological innovations introduced in this research—particularly the development of a multi-dimensional credibility index and the application of ensemble learning techniques—provide valuable tools for future research in financial reporting and audit quality. These approaches enable researchers to capture complex relationships and interaction effects that conventional methods might miss, opening new avenues for empirical investigation.

Several limitations warrant consideration in interpreting our findings. While our global sample provides broad coverage, certain jurisdictions remain underrepresented due to data availability constraints. Additionally, our analysis focuses on publicly available information, and unobservable factors may influence both rotation policy adoption and reporting outcomes. Future research could build on our approach by incorporating additional data sources and exploring longer-term effects of rotation policies on market development and economic outcomes.

In conclusion, this research provides empirical evidence to inform the ongoing debate about audit rotation policies and their role in promoting

financial reporting integrity. By demonstrating the contextual nature of rotation policy effectiveness and highlighting the importance of policy design and implementation details, our findings contribute to the development of more sophisticated, evidence-based approaches to audit regulation.

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