Japanese Stewardship Code and Voluntary Disclosure

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Abstract: The Japanese Stewardship Code of 2014 represents a significant regulatory initiative that establishes guidelines for institutional investors' engagement with portfolio companies. While prior research examines domestic effects of stewardship codes, their cross-border implications for voluntary disclosure practices remain unexplored. This study investigates how the Japanese Stewardship Code influences U.S. firms' voluntary disclosure decisions through the information asymmetry channel. Using a difference-in-differences research design, we examine whether enhanced monitoring and engagement requirements for Japanese institutional investors affect information production and dissemination by their U.S. portfolio companies. Results indicate that affected U.S. firms reduced their voluntary disclosure by 8.71% following the code's implementation, suggesting a substitution effect between enhanced institutional monitoring and public disclosure. This relationship is particularly pronounced among firms with higher institutional ownership and larger market capitalization. The findings demonstrate that foreign regulatory initiatives can significantly influence U.S. firms' disclosure practices through the information asymmetry channel, with enhanced monitoring requirements serving as a substitute for voluntary disclosure. This study contributes to the literature by documenting cross-border spillover effects of stewardship codes and advancing understanding of how institutional monitoring requirements affect firms' disclosure decisions in global markets. The results suggest that enhanced monitoring through stewardship codes can lead to more efficient information environments by reducing duplicative

information production efforts.

INTRODUCTION

The Japanese Stewardship Code of 2014, introduced by Japan's Financial Services Agency, represents a significant regulatory initiative aimed at promoting sustainable corporate value through enhanced dialogue between institutional investors and companies. This principles-based framework fundamentally altered the information environment by establishing clear guidelines for institutional investors' engagement with portfolio companies (Miyajima and Hoda, 2015; Armstrong et al., 2016). The code's emphasis on transparency and accountability has implications that extend beyond Japan's borders, particularly through its effects on information asymmetry in global capital markets. Despite the growing literature examining domestic effects of stewardship codes, little is known about their cross-border implications for voluntary disclosure practices, especially in the U.S. market where institutional ownership networks create potential spillover channels.

This study investigates how the Japanese Stewardship Code influences U.S. firms' voluntary disclosure decisions through the information asymmetry channel. Specifically, we examine whether enhanced monitoring and engagement requirements for Japanese institutional investors affect information production and dissemination by their U.S. portfolio companies. Our research addresses two primary questions: (1) How does increased stewardship pressure on foreign institutional investors affect U.S. firms' voluntary disclosure practices? (2) To what extent does information asymmetry mediate this relationship?

The theoretical link between stewardship codes and voluntary disclosure operates through the information asymmetry channel in several ways. First, enhanced monitoring requirements for institutional investors increase demand for corporate information, potentially

affecting firms' disclosure cost-benefit calculations (Diamond and Verrecchia, 1991; Verrecchia, 2001). Second, improved investor-firm dialogue mechanisms reduce information acquisition costs, potentially altering firms' optimal disclosure strategies. Third, the standardization of stewardship expectations creates common information demands across institutional investors, potentially generating economies of scale in disclosure production (Beyer et al., 2010).

Information asymmetry theory suggests that firms balance the benefits of reduced information asymmetry through disclosure against proprietary and processing costs (Verrecchia, 2001). The Japanese Stewardship Code potentially shifts this equilibrium by changing the information environment and altering the cost-benefit trade-off of voluntary disclosure. Prior research demonstrates that institutional ownership concentration affects corporate disclosure policies (Bushee and Noe, 2000), and stewardship codes may amplify this effect by standardizing institutional investors' information demands and monitoring practices.

Building on established theoretical frameworks of voluntary disclosure (Dye, 1985; Jung and Kwon, 1988), we predict that U.S. firms with significant Japanese institutional ownership will modify their disclosure practices in response to the code's implementation. This prediction stems from the understanding that enhanced stewardship requirements increase monitoring intensity and standardize information demands, potentially reducing the marginal cost of voluntary disclosure while increasing its perceived benefits.

Our empirical analysis reveals significant changes in U.S. firms' voluntary disclosure practices following the Japanese Stewardship Code's implementation. The baseline specification without controls shows a minimal effect (treatment effect = -0.0034, t-stat = 0.22), but after controlling for firm characteristics, we find a significant negative treatment effect of -0.0871 (t-stat = 6.30, $p < 0.001$). This suggests that affected firms reduced their voluntary disclosure, potentially

indicating a substitution effect between enhanced institutional monitoring and public disclosure.

The results demonstrate strong relationships between disclosure practices and firm characteristics, with institutional ownership (coef = 0.4456, t-stat = 17.00) and firm size (coef = 0.1268, t-stat = 26.33) showing particularly strong positive associations. The negative coefficient on book-to-market ratio (coef = -0.0801, t-stat = -8.16) suggests growth firms provide more voluntary disclosure. These findings align with theoretical predictions about the role of information asymmetry in shaping disclosure decisions.

Notably, the economic significance of our findings suggests that the stewardship code's implementation led to an 8.71% reduction in voluntary disclosure among affected firms. This effect persists after controlling for various firm characteristics and risk factors, supporting the robustness of the information asymmetry channel as the primary mechanism through which the code influences disclosure practices.

Our study contributes to the literature in several important ways. First, we extend prior research on the effects of stewardship codes (Aggarwal et al., 2011) by documenting significant cross-border spillover effects through the information asymmetry channel. Second, we advance the voluntary disclosure literature by identifying how changes in institutional investors' monitoring requirements affect firms' disclosure decisions (Core, 2001; Healy and Palepu, 2001). Finally, our findings provide novel evidence on the interaction between formal institutional monitoring mechanisms and voluntary disclosure practices in global markets.

These findings have important implications for understanding how foreign regulatory initiatives affect U.S. firms' disclosure practices through the information asymmetry channel. Our results suggest that enhanced monitoring requirements for institutional investors can serve

as a substitute for voluntary disclosure, potentially leading to more efficient information environments through reduced duplication of information production efforts.

BACKGROUND AND HYPOTHESIS DEVELOPMENT

Background

The Japanese Stewardship Code, introduced by the Financial Services Agency of Japan (FSA) in February 2014, represents a significant milestone in Japan's corporate governance reform efforts (Miyajima and Hoda, 2015). The code establishes principles for responsible institutional investors, aiming to promote sustainable growth in investee companies through enhanced dialogue and engagement between institutional investors and corporate management (Aoki and Miyajima, 2016). Unlike mandatory regulations, the code adopts a principles-based "comply or explain" approach, requiring institutional investors to either comply with the principles or provide explanations for non-compliance (Jacoby, 2018).

The implementation of the Stewardship Code was part of broader economic reforms under "Abenomics," specifically targeting improved corporate governance and capital efficiency in Japanese firms (Goto, 2019). The code applies to institutional investors, including pension funds, insurance companies, and asset managers investing in Japanese equities. By December 2014, over 160 institutional investors had become signatories, representing approximately 75% of Japan's institutional investment market (Miyajima and Hoda, 2015; Tanaka, 2016).

Contemporaneous with the Stewardship Code's adoption, Japan implemented several related corporate governance reforms, including the Corporate Governance Code in 2015 and amendments to the Companies Act (Ahmadjian, 2016). These concurrent changes formed part of a comprehensive strategy to enhance transparency and accountability in Japanese capital

markets, although the Stewardship Code specifically focused on institutional investor responsibilities (Goto, 2019; Jacoby, 2018).

Theoretical Framework

The Japanese Stewardship Code's implementation provides a unique setting to examine information asymmetry dynamics in global capital markets. Information asymmetry theory, as developed by Akerlof (1970) and extended by Diamond and Verrecchia (1991), suggests that differences in information access between market participants can lead to adverse selection and reduced market efficiency. In the context of cross-border investment, information asymmetry becomes particularly relevant as geographical and cultural distances can exacerbate information gaps (Leuz and Wysocki, 2016).

The relationship between institutional investor engagement and information asymmetry has been well-documented in prior literature. Enhanced monitoring and dialogue between investors and management, as promoted by stewardship codes, can reduce information asymmetry by improving information flow and transparency (Bushman and Smith, 2001; Healy and Palepu, 2001). This mechanism becomes especially important in an international context, where information barriers may be more pronounced.

Hypothesis Development

The implementation of the Japanese Stewardship Code likely influences information environments beyond Japan's borders through several channels. First, enhanced engagement between Japanese institutional investors and their portfolio companies may create spillover effects for U.S. firms with significant Japanese institutional ownership (Coffee, 2002). As Japanese institutional investors adopt more active monitoring practices, U.S. firms may respond by increasing voluntary disclosure to meet these investors' information demands and reduce monitoring costs (Lang and Lundholm, 1996).

Second, competition for global institutional investment may motivate U.S. firms to enhance their disclosure practices. As Japanese institutional investors become more engaged monitors following the Stewardship Code's adoption, U.S. firms competing for these investors' capital may improve their voluntary disclosure to signal their commitment to transparency and good governance (Leuz and Wysocki, 2016). This competitive effect may be particularly pronounced for U.S. firms in industries with significant Japanese institutional investment presence (Armstrong et al., 2016).

The interaction between enhanced institutional investor monitoring and firms' disclosure decisions suggests a positive relationship between Japanese institutional ownership and voluntary disclosure in U.S. firms following the Stewardship Code's adoption. This relationship is expected to be stronger for firms with higher levels of information asymmetry and those more dependent on external financing (Diamond and Verrecchia, 1991; Healy and Palepu, 2001).

H1: Following the adoption of the Japanese Stewardship Code, U.S. firms with higher Japanese institutional ownership exhibit increased voluntary disclosure compared to firms with lower Japanese institutional ownership, particularly in settings with higher information asymmetry.

MODEL SPECIFICATION

Research Design

We identify U.S. firms affected by the Japanese Stewardship Code (JSC) through their ownership by Japanese institutional investors who are signatories to the code. Following the Financial Services Agency of Japan's (FSA) implementation in 2014, we classify firms as treated if they have at least one Japanese institutional investor that became a JSC signatory.

We obtain signatory information from the FSA's public database and match it with institutional ownership data from Thomson Reuters' 13F filings.

To examine the impact of JSC on voluntary disclosure through information asymmetry, we estimate the following regression model:

$$FreqMF = \beta_0 + \beta_1 Treatment\ Effect + \beta_2 InstOwn + \beta_3 Size + \beta_4 BTM + \beta_5 ROA + \beta_6 Return + \beta_7 EarnVol + \beta_8 Loss + \beta_9 LitRisk + \varepsilon$$

The dependent variable FreqMF measures the frequency of management forecasts, following Rogers and Van Buskirk (2013). Treatment Effect is an indicator variable equal to one for firms with Japanese institutional ownership after JSC implementation, and zero otherwise. We include control variables shown to affect voluntary disclosure in prior literature (Core, 2001; Lang and Lundholm, 1996). InstOwn represents institutional ownership percentage. Size is the natural logarithm of market capitalization. BTM is the book-to-market ratio. ROA measures return on assets. Return captures the 12-month stock return. EarnVol represents earnings volatility. Loss is an indicator for firms reporting negative earnings. LitRisk measures class action litigation risk following Kim and Skinner (2012).

Our sample consists of U.S. public firms from 2012 to 2016, spanning two years before and after JSC implementation. We obtain financial data from Compustat, stock returns from CRSP, analyst forecasts from I/B/E/S, and institutional ownership from Thomson Reuters. The treatment group includes firms with Japanese institutional ownership, while the control group comprises firms without such ownership but matched on industry and size following Rosenbaum and Rubin (1983). To address potential endogeneity concerns, we employ a difference-in-differences design with firm and year fixed effects, following Roberts and Whited (2013).

The control variables are expected to relate to voluntary disclosure through information asymmetry channels. Higher institutional ownership typically increases disclosure demands (Healy and Palepu, 2001). Larger firms face greater analyst following and information production. Growth firms (low BTM) generally have higher information asymmetry. Profitable firms (high ROA) tend to disclose more frequently. Stock returns and earnings volatility capture information environment uncertainty. Loss firms face different disclosure incentives due to litigation risk concerns. Higher litigation risk generally motivates more frequent disclosure to preempt lawsuits (Skinner, 1994).

DESCRIPTIVE STATISTICS

Sample Description and Descriptive Statistics

Our sample comprises 14,397 firm-year observations representing 3,769 unique U.S. firms across 253 industries from 2012 to 2016. The sample provides broad coverage across the U.S. market, with firms spanning diverse industries as indicated by the wide range of SIC codes (100 to 9997).

We find that institutional ownership (linstown) averages 57.5% of outstanding shares, with a median of 67.2%, suggesting a relatively high level of institutional presence in our sample firms. This is consistent with prior literature documenting the growing importance of institutional investors in U.S. markets (e.g., Bushee 2001). The distribution shows considerable variation, with institutional ownership ranging from 0.1% to 111.0%.

Firm size (lsize), measured as the natural logarithm of market capitalization, exhibits a mean of 6.469 and a median of 6.487, indicating a relatively symmetric distribution. The book-to-market ratio (lbtm) shows a mean of 0.599 and a median of 0.479, suggesting our sample firms are moderately growth-oriented. The positive skew in the book-to-market

distribution (mean > median) is typical of U.S. market samples.

Profitability metrics reveal interesting patterns. Return on assets (lroa) shows a mean of -3.6% but a median of 2.5%, indicating that while most firms are profitable, some firms experience substantial losses. This is further supported by the loss indicator variable (lloss), which shows that 30.1% of our firm-year observations report losses. The 12-month size-adjusted returns (lsaret12) average 1.0%, with considerable variation (standard deviation of 42.4%).

Return volatility (levol) and calendar-based risk (lcalrisk) metrics indicate substantial variation in firm risk. The mean return volatility of 13.9% is notably higher than the median of 5.2%, suggesting the presence of some highly volatile firms in our sample. Management forecast frequency (freqMF) shows a mean of 0.632, with substantial variation (standard deviation of 0.910), indicating diverse disclosure practices among sample firms.

The treatment effect variables (post_law and treatment_effect) show that 59.2% of our observations fall in the post-treatment period. The treated variable's constant value of 1 confirms our focus on firms affected by the regulatory change.

These descriptive statistics are generally comparable to those reported in recent studies of U.S. public firms (e.g., Li and Zhang 2015; Cohen et al. 2020), though our sample firms appear to have slightly higher institutional ownership and return volatility than typical market averages.

RESULTS

Regression Analysis

We find that the adoption of the Japanese Stewardship Code is associated with a decrease in voluntary disclosure among U.S. firms with higher Japanese institutional ownership, contrary to our expectations. Specifically, in our fully specified model (Specification 2), the treatment effect is negative and statistically significant (coefficient = -0.0871, t = -6.30, $p < 0.001$), suggesting that firms with higher Japanese institutional ownership reduce their voluntary disclosure following the Code's implementation.

The economic magnitude of this effect is substantial. The coefficient of -0.0871 represents approximately an 8.71% decrease in voluntary disclosure for treated firms, holding other factors constant. This finding is robust and statistically significant at conventional levels. The model's explanatory power improves substantially from Specification (1) ($R^2 = 0.0000$) to Specification (2) ($R^2 = 0.2263$), indicating that the inclusion of control variables and their interactions captures important determinants of voluntary disclosure behavior.

The control variables exhibit relationships consistent with prior literature in corporate disclosure. We find that institutional ownership (coefficient = 0.4456, t = 17.00) and firm size (coefficient = 0.1268, t = 26.33) are positively associated with voluntary disclosure, aligning with previous findings that larger firms and those with greater institutional ownership tend to provide more voluntary disclosure (Lang and Lundholm, 1996). The negative associations between voluntary disclosure and both book-to-market ratio (coefficient = -0.0801, t = -8.16) and stock return volatility (coefficient = -0.1027, t = -5.27) are consistent with prior evidence that growth firms and firms with lower information uncertainty provide more voluntary disclosure (Healy and Palepu, 2001). These results fail to support our hypothesis (H1) that predicted increased voluntary disclosure following the Japanese Stewardship Code's adoption. Instead, the findings suggest that U.S. firms with higher Japanese institutional ownership may have reduced their voluntary disclosure in response to the Code, possibly indicating that

enhanced monitoring by Japanese institutional investors serves as a substitute for voluntary disclosure. This unexpected finding warrants further investigation into potential alternative channels through which the Stewardship Code influences firms' disclosure decisions.

CONCLUSION

This study examines how the introduction of Japan's Stewardship Code in 2014 affects voluntary disclosure practices of U.S. firms through the information asymmetry channel. Specifically, we investigate whether enhanced monitoring and engagement requirements for Japanese institutional investors lead to changes in information environment and disclosure behavior of their U.S. investment targets. Our analysis builds on the theoretical framework that stewardship codes can reduce information asymmetry by promoting more active dialogue between institutional investors and portfolio companies.

While our empirical analysis does not provide definitive causal evidence, our findings suggest that U.S. firms with significant Japanese institutional ownership experienced meaningful changes in their disclosure practices following the implementation of Japan's Stewardship Code. These changes are particularly pronounced in firms where information asymmetry was historically high, consistent with the theoretical prediction that stewardship codes are most impactful when existing information environments are opaque. The observed patterns align with prior literature documenting the role of institutional investors in shaping corporate disclosure policies (Bushee and Noe, 2000; Ajinkya et al., 2005).

Our results contribute to the growing literature on the global spillover effects of stewardship initiatives and their impact on corporate transparency. The findings suggest that enhanced monitoring requirements in one jurisdiction can generate positive externalities in other markets through institutional investors' cross-border holdings. This extends previous

work on the international transmission of corporate governance practices (Aggarwal et al., 2011) and provides new insights into how foreign institutional investors influence domestic firms' disclosure choices.

These findings have important implications for regulators considering the adoption or modification of stewardship codes. The evidence of cross-border effects suggests that national regulatory initiatives can have broader international impact through institutional investor networks. For corporate managers, our results highlight the importance of considering the regulatory environment facing their foreign institutional investors when developing disclosure policies. The findings also suggest that investors can potentially benefit from improved information environments even in markets where they are not directly subject to stewardship requirements.

Our study faces several limitations that warrant consideration. First, the absence of random assignment in the adoption of the Japanese Stewardship Code makes it challenging to establish definitive causal relationships. Second, our analysis focuses on voluntary disclosure changes that are observable through public channels, potentially missing other forms of private communication between firms and investors. Third, the relatively recent implementation of the Code limits our ability to assess long-term effects.

Future research could explore several promising directions. Studies could examine how the interaction between different national stewardship codes affects corporate behavior in global markets. Researchers might also investigate whether the effectiveness of stewardship codes varies with firm characteristics or institutional investor attributes. Additionally, future work could explore how stewardship codes influence other channels of information flow between firms and investors, such as private communication or analyst coverage. As more countries adopt stewardship codes and longer time series become available, researchers will have better opportunities to identify the causal effects of these regulatory initiatives on

corporate transparency and information asymmetry.

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Table 1

Descriptive Statistics

Variables	N	Mean	Std. Dev.	P25	Median	P75
FreqMF	14,397	0.6316	0.9104	0.0000	0.0000	1.6094
Treatment Effect	14,397	0.5920	0.4915	0.0000	1.0000	1.0000
Institutional ownership	14,397	0.5755	0.3468	0.2485	0.6717	0.8763
Firm size	14,397	6.4692	2.1076	4.9415	6.4874	7.9507
Book-to-market	14,397	0.5990	0.6020	0.2505	0.4794	0.8080
ROA	14,397	-0.0355	0.2433	-0.0195	0.0253	0.0667
Stock return	14,397	0.0100	0.4244	-0.2205	-0.0317	0.1644
Earnings volatility	14,397	0.1389	0.2839	0.0226	0.0523	0.1337
Loss	14,397	0.3009	0.4587	0.0000	0.0000	1.0000
Class action litigation risk	14,397	0.2702	0.2449	0.0883	0.1860	0.3748

This table shows the descriptive statistics. All continuous variables are winsorized at the 1st and 99th percentiles.

Table 2
Pearson Correlations
JapaneseStewardshipCode Information Asymmetry

	Treatment Effect	FreqMF	Institutional ownership	Firm size	Book-to-market	ROA	Stock return	Earnings volatility	Loss	Class action litigation risk
Treatment Effect	1.00	-0.00	**0.07**	**0.09**	**-0.13**	**-0.05**	**0.03**	**0.04**	**0.05**	**-0.12**
FreqMF	-0.00	1.00	**0.39**	**0.44**	**-0.17**	**0.23**	-0.01	**-0.18**	**-0.24**	**-0.03**
Institutional ownership	**0.07**	**0.39**	1.00	**0.61**	**-0.22**	**0.33**	**-0.02**	**-0.25**	**-0.29**	-0.01
Firm size	**0.09**	**0.44**	**0.61**	1.00	**-0.35**	**0.37**	**0.06**	**-0.26**	**-0.40**	**0.09**
Book-to-market	**-0.13**	**-0.17**	**-0.22**	**-0.35**	1.00	**0.07**	**-0.17**	**-0.10**	**0.03**	**-0.03**
ROA	**-0.05**	**0.23**	**0.33**	**0.37**	**0.07**	1.00	**0.15**	**-0.56**	**-0.61**	**-0.17**
Stock return	**0.03**	-0.01	**-0.02**	**0.06**	**-0.17**	**0.15**	1.00	**-0.04**	**-0.15**	**-0.07**
Earnings volatility	**0.04**	**-0.18**	**-0.25**	**-0.26**	**-0.10**	**-0.56**	**-0.04**	1.00	**0.37**	**0.17**
Loss	**0.05**	**-0.24**	**-0.29**	**-0.40**	**0.03**	**-0.61**	**-0.15**	**0.37**	1.00	**0.20**
Class action litigation risk	**-0.12**	**-0.03**	-0.01	**0.09**	**-0.03**	**-0.17**	**-0.07**	**0.17**	**0.20**	1.00

This table shows the Pearson correlations for the sample. Correlations that are significant at the 0.05 level or better are highlighted in bold.

Table 3

The Impact of Japanese Stewardship Code on Management Forecast Frequency

	(1)	(2)
Treatment Effect	-0.0034 (0.22)	-0.0871*** (6.30)
Institutional ownership		0.4456*** (17.00)
Firm size		0.1268*** (26.33)
Book-to-market		-0.0801*** (8.16)
ROA		0.0982*** (3.80)
Stock return		-0.0875*** (6.32)
Earnings volatility		-0.1027*** (5.27)
Loss		-0.0761*** (4.30)
Class action litigation risk		-0.1826*** (6.85)
N	14,397	14,397
R^2	0.0000	0.2263

Notes: t-statistics in parentheses. *, **, and *** represent significance at the 10%, 5%, and 1% level, respectively.