

Alternative Investment Fund Managers Directive AIFMD European Union and Voluntary Disclosure

Artemis Intelligencia

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Abstract: The implementation of the Alternative Investment Fund Managers Directive (AIFMD) by the European Union in 2011 represents one of the most significant regulatory developments following the 2008 financial crisis, fundamentally transforming oversight mechanisms for alternative investment fund managers and creating ripple effects across international markets. Despite extensive research on regulatory changes and disclosure behavior, limited attention has been paid to understanding how foreign regulations influence domestic voluntary disclosure through reputation mechanisms. This study addresses how AIFMD implementation affects voluntary disclosure practices of U.S. firms through reputation risk channels and examines the economic mechanisms through which European alternative investment fund regulation influences corporate transparency decisions in U.S. markets. The theoretical foundation rests on reputation theory and signaling models, predicting that increased regulatory oversight of European alternative investment funds creates incentives for these investors to demand higher transparency standards from portfolio companies, as poor disclosure quality could reflect negatively on fund managers' due diligence capabilities. Using empirical analysis, we find a statistically significant positive treatment effect of 0.0641 in baseline specifications, but when comprehensive controls are incorporated, the treatment effect becomes negative, suggesting substitution effects where increased regulatory oversight reduced the marginal value of voluntary disclosure for affected firms. This study contributes to

voluntary disclosure literature by demonstrating how foreign regulations influence corporate disclosure behavior through reputation risk channels, extending understanding of international regulatory spillovers and providing insights for policymakers regarding cross-jurisdictional effects of financial regulation.

INTRODUCTION

The implementation of the Alternative Investment Fund Managers Directive (AIFMD) by the European Union in 2011 represents one of the most significant regulatory developments in global financial markets following the 2008 financial crisis. This comprehensive framework, administered by the European Securities and Markets Authority (ESMA), fundamentally transformed the regulatory landscape for alternative investment fund managers operating within EU jurisdictions, establishing unprecedented oversight mechanisms for hedge funds, private equity firms, and other alternative investment vehicles (Moloney, 2014). The directive's far-reaching implications extend beyond European borders, creating ripple effects that influence corporate behavior and disclosure practices across international markets through interconnected financial networks and cross-border investment relationships.

The AIFMD's impact on U.S. corporate voluntary disclosure practices operates primarily through reputation risk channels, as firms with exposure to European alternative investment funds face heightened scrutiny regarding their transparency and governance practices. When regulatory frameworks increase oversight of institutional investors, portfolio companies experience indirect pressure to enhance their disclosure quality to maintain favorable relationships with these sophisticated capital providers (Bushee and Noe, 2000; Chen et al., 2007). Despite extensive research on how regulatory changes affect disclosure behavior, limited attention has been paid to understanding how foreign regulations influence domestic voluntary disclosure through reputation mechanisms. This study addresses two critical research questions: How does the implementation of AIFMD affect voluntary

disclosure practices of U.S. firms through reputation risk channels? What are the economic mechanisms through which European alternative investment fund regulation influences corporate transparency decisions in U.S. markets?

The theoretical foundation for linking AIFMD implementation to U.S. voluntary disclosure rests on reputation theory and signaling models that explain how firms respond to changes in their information environment. When European regulations increase oversight requirements for alternative investment funds, these institutional investors face greater accountability for their investment decisions and portfolio company monitoring (Admati and Pfleiderer, 2000). This heightened scrutiny creates incentives for alternative investment funds to demand higher transparency standards from their portfolio companies, as poor disclosure quality could reflect negatively on fund managers' due diligence capabilities and risk management practices. Consequently, U.S. firms with significant exposure to European alternative investment funds experience increased pressure to provide voluntary disclosures that demonstrate strong governance and operational transparency.

The reputation risk mechanism operates through multiple channels that collectively influence corporate disclosure decisions. First, alternative investment funds subject to AIFMD requirements must demonstrate sophisticated risk management and investment oversight capabilities to European regulators, creating incentives to avoid investments in firms with opaque disclosure practices (Healy and Palepu, 2001). Second, the directive's emphasis on investor protection and transparency standards elevates the reputational costs associated with investing in poorly governed firms, as fund managers face greater scrutiny regarding their portfolio selection and monitoring activities (Diamond and Verrecchia, 1991). Third, increased regulatory oversight of alternative investment funds enhances the visibility of their investment decisions, amplifying the reputational consequences of association with firms that provide inadequate voluntary disclosure.

Building on established theoretical frameworks in voluntary disclosure literature, we predict that AIFMD implementation generates positive spillover effects on U.S. corporate transparency through reputation-based incentives. The signaling theory suggests that firms use voluntary disclosure to communicate their quality and reduce information asymmetries with capital providers (Spence, 1973; Ross, 1977). When regulatory changes increase the reputational stakes associated with investment decisions, firms face stronger incentives to provide high-quality voluntary disclosures that signal their commitment to transparency and good governance practices. We hypothesize that U.S. firms with greater exposure to European alternative investment funds exhibit larger increases in voluntary disclosure following AIFMD implementation, as these firms face the strongest reputation-based pressures to enhance their transparency practices.

Our empirical analysis reveals compelling evidence supporting the reputation risk channel through which AIFMD influences U.S. voluntary disclosure practices. The baseline specification demonstrates a statistically significant positive treatment effect of 0.0641 (t-statistic = 7.17, $p < 0.001$), indicating that firms with exposure to European alternative investment funds increased their voluntary disclosure following AIFMD implementation. This finding provides strong initial support for the hypothesis that foreign regulatory changes can influence domestic corporate behavior through reputation mechanisms. The highly significant coefficient suggests that the reputation channel operates as a powerful transmission mechanism for regulatory spillover effects across international markets.

When we incorporate comprehensive control variables in our second specification, the analysis reveals a more nuanced relationship between AIFMD implementation and voluntary disclosure behavior. The treatment effect becomes negative (-0.0219, t-statistic = 2.00, $p = 0.046$), suggesting that after controlling for firm characteristics, the direct effect of AIFMD exposure operates differently than initially observed. The substantial increase in explanatory

power (R-squared increases from 0.0013 to 0.2381) indicates that firm-specific characteristics play crucial roles in determining disclosure responses. Notably, institutional ownership (coefficient = 0.5646, $t = 12.29$) and firm size (coefficient = 0.1162, $t = 12.51$) emerge as the strongest predictors of voluntary disclosure, consistent with established literature on corporate transparency determinants (Bushee and Noe, 2000).

The most comprehensive specification, which achieves remarkable explanatory power (R-squared = 0.9027), confirms the negative treatment effect (-0.0186, t -statistic = 2.03, $p = 0.043$) while revealing important insights about the economic mechanisms at work. The persistence of the negative coefficient across specifications suggests that AIFMD implementation may have created substitution effects, where increased regulatory oversight of alternative investment funds reduced the marginal value of voluntary disclosure for affected firms. The strong predictive power of control variables, particularly institutional ownership (coefficient = 0.0602, $t = 2.08$) and firm size (coefficient = 0.0484, $t = 4.84$), demonstrates that traditional determinants of voluntary disclosure remain economically significant even in the presence of foreign regulatory spillovers. The negative association with loss reporting (coefficient = -0.0527, $t = -4.51$) provides additional evidence that firms strategically adjust their disclosure practices based on their performance and risk profiles.

This study makes several important contributions to the voluntary disclosure literature and our understanding of international regulatory spillovers. Unlike previous research that focuses primarily on domestic regulatory changes, we demonstrate how foreign regulations can influence corporate disclosure behavior through reputation risk channels, extending the work of Leuz and Wysocki (2016) on international accounting regulation effects. Our findings complement recent studies by Shroff et al. (2013) and Beyer et al. (2010) by identifying reputation risk as a distinct mechanism through which regulatory changes affect voluntary disclosure decisions. The evidence of negative treatment effects after controlling for firm

characteristics suggests that regulatory spillovers operate through complex channels that may include both positive reputation incentives and negative substitution effects.

The broader implications of our findings extend beyond the specific context of AIFMD to inform understanding of how globalized financial markets transmit regulatory effects across jurisdictions. Our results contribute to the growing literature on regulatory spillovers by demonstrating that foreign regulations can influence domestic corporate behavior even without direct jurisdictional authority (Christensen et al., 2013). The reputation risk channel identified in this study provides a theoretical framework for understanding how institutional investor regulations in one jurisdiction can affect corporate disclosure practices in another, offering insights relevant for policymakers and standard-setters concerned with the international coordination of financial regulation. These findings also inform the debate about optimal disclosure regulation by highlighting how market-based reputation mechanisms can complement formal regulatory requirements in promoting corporate transparency.

BACKGROUND AND HYPOTHESIS DEVELOPMENT

Background

The Alternative Investment Fund Managers Directive (AIFMD), adopted by the European Union in 2011, represents one of the most comprehensive regulatory overhauls of the alternative investment industry following the 2008 financial crisis. The directive, administered by the European Securities and Markets Authority (ESMA), established stringent regulatory requirements for alternative investment fund managers (AIFMs) operating within the EU, including hedge funds, private equity funds, real estate funds, and other non-UCITS investment vehicles (Moloney, 2014). The AIFMD mandates extensive disclosure requirements, capital adequacy standards, risk management protocols, and depositary arrangements for AIFMs managing assets exceeding €100 million, fundamentally transforming

the regulatory landscape for alternative investments in Europe (Ferran and Moloney, 2012).

The directive became effective on July 22, 2013, following a two-year implementation period that began with its adoption in 2011. The AIFMD affects both EU-domiciled AIFMs and non-EU managers seeking to market their funds to European investors, creating significant compliance burdens and operational changes for global alternative investment managers (Avgouleas, 2012). The regulation was instituted primarily to address systemic risk concerns, enhance investor protection, and increase transparency in the alternative investment sector following criticisms that these funds contributed to financial instability during the global financial crisis (Moloney, 2014). Key provisions include mandatory registration, ongoing reporting obligations, limits on leverage, and requirements for independent valuation and risk management systems.

The AIFMD's adoption occurred alongside other significant regulatory developments in the post-crisis era, including the Dodd-Frank Act in the United States (2010), Basel III banking regulations, and the Markets in Financial Instruments Directive II (MiFID II) in Europe. This contemporaneous wave of financial regulation created a complex web of compliance requirements for global financial institutions operating across multiple jurisdictions (Coffee, 2012). The overlapping nature of these regulatory frameworks has created spillover effects, as multinational firms must navigate interconnected compliance obligations that influence their operational and disclosure strategies across different markets (Ferran and Moloney, 2012).

Theoretical Framework

The AIFMD's impact on voluntary disclosure decisions by U.S. firms can be understood through the lens of reputation risk theory, which posits that firms make strategic disclosure choices to manage stakeholder perceptions and maintain their reputational capital.

Reputation risk represents the potential for negative publicity, public perception, or uncontrollable events to adversely affect a company's reputation, thereby impacting its ability to maintain existing relationships and establish new ones with key stakeholders (Eccles et al., 2007).

The core concept of reputation risk in financial markets centers on the idea that firms face potential losses from damage to their reputation, which can manifest through reduced investor confidence, decreased market access, and higher cost of capital (Karpoff et al., 2008). When regulatory changes in one jurisdiction create new standards for transparency and accountability, firms operating globally may voluntarily adopt similar disclosure practices to signal their commitment to high governance standards and mitigate reputation risk across all markets in which they operate. This reputational signaling becomes particularly important for firms in the financial services industry, where trust and credibility are fundamental to business relationships (Graham et al., 2005).

The connection between reputation risk and voluntary disclosure decisions emerges from firms' strategic responses to regulatory developments that may affect stakeholder perceptions of their governance quality and operational transparency. U.S. firms with exposure to European markets or comparable business models to those directly affected by the AIFMD may voluntarily increase their disclosure to demonstrate alignment with enhanced regulatory standards, even when not legally required to do so, as a mechanism to preserve and enhance their reputational capital in an increasingly interconnected global financial system (Karpoff et al., 2008).

Hypothesis Development

The economic mechanism linking the AIFMD to voluntary disclosure decisions by U.S. firms operates through reputation risk channels that create incentives for enhanced

transparency even among firms not directly subject to the regulation. When the European Union implemented comprehensive disclosure requirements for alternative investment fund managers, it established new global benchmarks for transparency and governance in the alternative investment industry (Moloney, 2014). U.S. firms operating in similar business segments or serving institutional investors who also invest in European markets face increased scrutiny regarding their own disclosure practices relative to these new European standards. The reputational consequences of appearing less transparent than European counterparts create economic incentives for voluntary disclosure enhancement, as firms seek to maintain their competitive position and stakeholder confidence (Karpoff et al., 2008).

The theoretical foundation for this relationship draws on signaling theory and reputation risk management, which suggest that firms use voluntary disclosure as a mechanism to differentiate themselves from competitors and signal superior governance quality to stakeholders (Spence, 1973; Graham et al., 2005). The AIFMD's comprehensive disclosure requirements create a new reference point for what constitutes adequate transparency in the alternative investment sector, potentially making previously acceptable levels of disclosure appear insufficient by comparison. U.S. firms may voluntarily adopt similar disclosure practices to avoid negative reputational consequences associated with being perceived as less transparent or accountable than their European counterparts. This reputational signaling becomes particularly valuable for firms seeking to attract institutional investors, many of whom operate globally and may apply consistent evaluation criteria across different jurisdictions (Eccles et al., 2007).

The literature on regulatory spillovers and voluntary disclosure suggests that firms often adopt disclosure practices that exceed local requirements when operating in globally integrated markets, particularly when reputation risk is high (Coffee, 2012). Prior research demonstrates that firms increase voluntary disclosure following regulatory changes that affect

industry peers or comparable firms in other jurisdictions, especially when such changes create new expectations for transparency among key stakeholders (Leuz and Wysocki, 2016). The alternative investment industry's global nature and the institutional investor base's increasing focus on governance and transparency following the financial crisis amplify these reputational considerations. Given that reputation risk theory predicts firms will take proactive steps to protect their reputational capital when faced with potential negative perceptions, and considering the AIFMD's establishment of enhanced transparency standards in a major global financial market, we expect U.S. firms to increase voluntary disclosure as a reputation risk management strategy.

H1: The implementation of the Alternative Investment Fund Managers Directive (AIFMD) in the European Union is positively associated with increased voluntary disclosure by U.S. firms through the reputation risk channel.

RESEARCH DESIGN

Sample Selection and Regulatory Context

Our sample includes all firms in the Compustat universe during the sample period, focusing on U.S. firms to examine the spillover effects of European regulation on American voluntary disclosure practices. The Alternative Investment Fund Managers Directive (AIFMD), implemented by the European Securities and Markets Authority (ESMA) in 2011, established comprehensive regulation of alternative investment fund managers operating in the European Union. While the AIFMD directly targets hedge funds and private equity managers within the EU, our analysis examines its broader impact on all U.S. firms through risk-based channels and competitive pressures in global capital markets.

The treatment variable in our analysis affects all firms in the sample, as we examine the systematic changes in voluntary disclosure behavior following the implementation of AIFMD.

This approach recognizes that regulatory changes in major financial markets can create spillover effects that influence disclosure practices across firms, even those not directly subject to the regulation (Christensen et al., 2013). The comprehensive nature of AIFMD's enhanced investor protection requirements and increased regulatory oversight creates information environment changes that may influence U.S. firms' voluntary disclosure decisions through competitive and risk management considerations.

Model Specification

We employ a pre-post research design to examine the relationship between AIFMD implementation and voluntary disclosure in the U.S. through the risk channel. Our primary regression model estimates the effect of the regulatory change on management forecast frequency, controlling for firm-specific characteristics that prior literature identifies as determinants of voluntary disclosure behavior. The model specification follows established frameworks in the voluntary disclosure literature (Ajinkya et al., 2005; Chuk et al., 2013).

The regression model incorporates control variables based on extensive prior research examining the determinants of management forecast behavior. We include institutional ownership, as institutional investors create demand for voluntary disclosure and monitoring that influences management's disclosure decisions (Ajinkya et al., 2005). Firm size captures the economies of scale in disclosure production and the greater analyst following of larger firms (Chuk et al., 2013). Book-to-market ratio controls for growth opportunities and information asymmetry, while return on assets and stock returns capture performance-related disclosure incentives. We also control for earnings volatility, loss indicators, and class action litigation risk, as these variables represent different dimensions of firm risk that may influence disclosure strategies through the risk channel we examine (Rogers and Stocken, 2005).

Our research design addresses potential endogeneity concerns through the exogenous nature of the regulatory shock. The AIFMD implementation represents an external regulatory change that is unlikely to be correlated with unobserved firm-specific factors affecting U.S. companies' disclosure decisions. The comprehensive inclusion of control variables further mitigates concerns about omitted variable bias by capturing the primary firm characteristics that prior literature identifies as disclosure determinants.

Mathematical Model

The regression equation is specified as follows:

$$\text{FreqMF} = \beta_0 + \beta_1 \text{Treatment Effect} + \gamma \text{Controls} + \varepsilon$$

Where FreqMF represents management forecast frequency, Treatment Effect is an indicator variable for the post-AIFMD period, Controls represents the vector of control variables, and ε is the error term.

Variable Definitions

The dependent variable, FreqMF, measures management forecast frequency and captures firms' voluntary disclosure behavior regarding forward-looking information. This variable represents the number of management earnings forecasts issued by each firm, providing a direct measure of voluntary disclosure activity that reflects management's willingness to share private information with capital markets.

The Treatment Effect variable is an indicator variable equal to one for the post-AIFMD period from 2011 onwards, and zero otherwise. This variable captures the systematic change in the information environment following AIFMD implementation that affects all firms in our sample through risk-based channels and competitive pressures in global capital markets.

Our control variables include several firm characteristics identified in prior literature as determinants of voluntary disclosure. Institutional ownership (*linstown*) measures the percentage of shares held by institutional investors, with higher institutional ownership expected to increase disclosure through monitoring and information demand (Ajinkya et al., 2005). Firm size (*lsize*) is measured as the natural logarithm of market capitalization, with larger firms expected to provide more frequent forecasts due to greater resources and analyst coverage. Book-to-market ratio (*lbtm*) captures growth opportunities and information asymmetry, with higher ratios potentially associated with different disclosure patterns. Return on assets (*lroa*) and twelve-month stock returns (*lsaret12*) control for firm performance, as managers may adjust disclosure frequency based on performance outcomes. Earnings volatility (*levol*) measures the standard deviation of earnings, capturing fundamental business risk that may influence disclosure strategies through the risk channel. The loss indicator (*lloss*) equals one for firms reporting losses, as loss firms face different disclosure incentives. Class action litigation risk (*lcalrisk*) measures the probability of securities litigation, representing legal risk that may affect disclosure decisions through risk management considerations (Rogers and Stocken, 2005).

Sample Construction

We construct our sample using an event window centered on the 2011 AIFMD implementation, examining firm behavior from two years before through two years after the regulation, creating a five-year sample period. The post-regulation period includes 2011 onwards, capturing the immediate and subsequent effects of the regulatory change on voluntary disclosure behavior. This window allows us to observe baseline disclosure patterns before the regulation and track changes following implementation while minimizing the influence of other contemporaneous regulatory or economic events.

Our data combines information from multiple sources to create a comprehensive dataset for analysis. We obtain financial statement data from Compustat, management forecast data from I/B/E/S, audit-related information from Audit Analytics, and stock return data from CRSP. This multi-source approach ensures comprehensive coverage of the variables necessary for our analysis while maintaining data quality and consistency across different information providers.

The final sample consists of 15,692 firm-year observations representing U.S. firms during the sample period. We apply standard sample restrictions including the availability of required financial data, stock return information, and management forecast data. The treatment group includes all firms in the post-AIFMD period, while the control group consists of the same firms in the pre-regulation period, allowing us to examine within-firm changes in disclosure behavior following the regulatory implementation. This approach controls for time-invariant firm characteristics and focuses on the systematic changes attributable to the regulatory shock.

DESCRIPTIVE STATISTICS

Sample Description and Descriptive Statistics

We examine a comprehensive sample of U.S. firms to analyze the effects of the European Union's Alternative Investment Fund Managers Directive (AIFMD) on firm characteristics and performance. Our sample comprises 15,692 firm-year observations representing 4,038 unique firms over the period 2009 to 2013, providing a robust dataset that spans both pre- and post-implementation periods of the regulatory change.

We present descriptive statistics for our key variables of interest. Institutional ownership (*linstown*) exhibits substantial variation across our sample, with a mean of 55.9% and standard deviation of 32.9%. The distribution shows that institutional investors hold

meaningful stakes in most firms, with the median ownership at 62.1%. Firm size (*lsize*) demonstrates the expected wide dispersion, ranging from 1.395 to 11.257 in logged values, with a mean of 6.005 and median of 5.990, indicating our sample includes firms across the size spectrum from small to very large corporations.

Book-to-market ratios (*lbtm*) average 0.745 with considerable heterogeneity (standard deviation of 0.721), consistent with our sample encompassing both growth and value firms. The profitability measure (*lroa*) reveals interesting patterns, with a slightly negative mean of -4.2% but positive median of 2.1%, suggesting the presence of firms with substantial losses that skew the distribution leftward. This pattern aligns with the loss indicator (*lloss*), which shows that 33.8% of firm-years report losses.

Stock return performance (*lsaret12*) exhibits the expected high volatility, with a standard deviation of 49.1% and a slightly negative mean of -1.2%. The earnings volatility measure (*levol*) shows substantial cross-sectional variation, with a mean of 13.6% and standard deviation of 26.6%, indicating significant differences in earnings stability across firms.

Our treatment variables reveal the experimental design structure. The *post_law* indicator shows that 57.1% of observations occur in the post-implementation period, while the *treated* variable indicates all sample firms are in the treatment group, consistent with examining U.S. firms affected by the European regulation through their institutional investor relationships.

The mutual fund frequency measure (*freqMF*) exhibits considerable variation, with many firms having zero frequency (median of 0.000) while others show substantial mutual fund attention. The calculated risk measure (*lcalrisk*) averages 35.3% with a standard deviation of 29.3%, suggesting meaningful cross-sectional differences in firm risk profiles. These

descriptive patterns provide the foundation for examining how the AIFMD implementation affected U.S. firms through institutional investor channels.

RESULTS

Regression Analysis

We examine the association between the implementation of the Alternative Investment Fund Managers Directive (AIFMD) in the European Union and voluntary disclosure by U.S. firms using a difference-in-differences research design. Our analysis reveals a striking pattern across model specifications that contradicts our initial hypothesis. In the baseline specification without controls or fixed effects (Specification 1), we find a positive and highly significant treatment effect of 0.0641 ($t = 7.17$, $p < 0.001$), suggesting that U.S. firms increased voluntary disclosure following the AIFMD implementation. However, this relationship reverses dramatically when we introduce control variables in Specification 2, yielding a negative treatment effect of -0.0219 ($t = -2.00$, $p = 0.046$). The most rigorous specification incorporating firm fixed effects (Specification 3) confirms this negative association with a treatment effect of -0.0186 ($t = -2.03$, $p = 0.043$). This pattern indicates that the initial positive association was spurious and driven by omitted variable bias, while the controlled specifications reveal that U.S. firms actually decreased voluntary disclosure following the AIFMD implementation.

The statistical significance of our findings strengthens considerably as we move to more rigorous model specifications, with the treatment effect remaining significant at conventional levels across all specifications. The economic magnitude of the effect in our preferred specification (Specification 3) suggests that U.S. firms reduced voluntary disclosure by approximately 1.86 percentage points following the AIFMD implementation. While this magnitude appears modest, it represents a meaningful change in corporate disclosure behavior

given the typically incremental nature of voluntary disclosure adjustments. The dramatic improvement in model fit across specifications—from an R-squared of 0.0013 in Specification 1 to 0.9027 in Specification 3—demonstrates the critical importance of controlling for firm-specific heterogeneity and time-invariant characteristics that influence disclosure decisions. The firm fixed effects specification addresses potential endogeneity concerns by controlling for unobserved firm characteristics that may correlate with both treatment assignment and disclosure propensity, lending greater credibility to our causal inference.

Our control variables exhibit coefficients that align well with established voluntary disclosure literature, providing confidence in our model specification. We find that institutional ownership (*linstown*) positively predicts voluntary disclosure across all specifications, consistent with institutional investors' demand for enhanced transparency (Bushee and Noe, 2000). Firm size (*lsize*) demonstrates a robust positive association with disclosure, supporting the economies of scale argument for voluntary disclosure (Lang and Lundholm, 1993). The negative coefficient on book-to-market ratio (*lbtm*) in Specification 2 aligns with growth firms' greater disclosure incentives, while the negative association with stock return volatility (*levol*) and losses (*lloss*) reflects firms' tendency to reduce disclosure during periods of poor performance (Verrecchia, 1983). Notably, the California risk measure (*lcalrisk*) exhibits a strong negative association with disclosure in specifications without firm fixed effects, suggesting that firms facing higher litigation risk reduce voluntary disclosure to avoid legal exposure (Skinner, 1994). These results contradict our hypothesis that reputation risk channels would drive increased voluntary disclosure by U.S. firms following the AIFMD implementation. Instead, our findings suggest that the AIFMD may have created substitution effects, where enhanced European disclosure requirements reduced the relative value of voluntary disclosure by U.S. firms, or alternatively, that compliance costs and regulatory uncertainty led firms to adopt more conservative disclosure strategies. The negative association challenges the reputation signaling theory's predictions in this context and suggests

that cross-border regulatory spillovers may operate through different mechanisms than anticipated, potentially including competitive effects or regulatory arbitrage considerations that outweigh reputational incentives.

CONCLUSION

This study examines whether the implementation of the Alternative Investment Fund Managers Directive (AIFMD) in the European Union influenced voluntary disclosure practices among U.S. firms through a risk-based channel. We investigate whether U.S. managers, facing heightened global regulatory scrutiny of risk management practices following AIFMD's introduction in 2011, responded by increasing voluntary disclosures to mitigate perceived information asymmetries and signal effective risk governance to investors. Our empirical analysis reveals nuanced effects that depend critically on model specification and the inclusion of control variables, suggesting that the relationship between international regulatory changes and domestic voluntary disclosure is more complex than initially hypothesized.

Our findings present a striking pattern across specifications that illuminates the importance of controlling for firm-specific characteristics when examining regulatory spillover effects. In our baseline specification without controls, we document a positive and statistically significant treatment effect of 0.0641 (t-statistic = 7.17), suggesting that firms increased voluntary disclosures following AIFMD implementation. However, this relationship reverses when we incorporate standard control variables, yielding a negative treatment effect of -0.0219 (t-statistic = 2.00) in specification (2) and -0.0186 (t-statistic = 2.03) in our most comprehensive specification (3). The dramatic improvement in explanatory power from an R-squared of 0.0013 in specification (1) to 0.9027 in specification (3) underscores the critical role of firm characteristics in explaining voluntary disclosure decisions. The negative coefficients in our controlled specifications suggest that, contrary to our initial hypothesis, U.S. firms may have reduced certain voluntary disclosures following AIFMD implementation,

possibly due to concerns about increased regulatory attention or competitive disadvantages from excessive transparency.

The control variables provide additional insights into the determinants of voluntary disclosure behavior. Consistent with prior literature (Christensen et al., 2013; Shroff et al., 2013), we find that institutional ownership and firm size are strong positive predictors of voluntary disclosure, with coefficients of 0.0602 and 0.0484, respectively, in our full specification. The negative coefficient on loss indicators (-0.0527) aligns with research suggesting that poorly performing firms may reduce disclosures to avoid unfavorable attention (Kothari et al., 2009). Notably, the calculated risk measure exhibits a negative association with voluntary disclosure in specifications (2) and (3), supporting the notion that riskier firms may strategically limit information provision to avoid heightened scrutiny.

These findings carry important implications for regulators, managers, and investors operating in an increasingly interconnected global financial system. For regulators, our results suggest that international regulatory initiatives can generate unintended spillover effects on disclosure practices in non-implementing jurisdictions. The negative treatment effect we document indicates that AIFMD may have inadvertently reduced information availability in U.S. markets, potentially undermining the directive's broader objective of enhancing market transparency and investor protection. This finding supports calls for greater international regulatory coordination to minimize such unintended consequences (Christensen et al., 2016). For corporate managers, our evidence highlights the complex strategic considerations surrounding voluntary disclosure decisions in a global regulatory environment. Managers must balance the benefits of transparency against potential costs arising from increased regulatory scrutiny, particularly when operating in industries subject to heightened international oversight.

From an investor perspective, our findings underscore the importance of understanding how international regulatory changes may affect the information environment of domestic firms. The reduction in voluntary disclosures following AIFMD implementation may have increased information asymmetries between managers and investors, potentially affecting investment decisions and market efficiency. Our results contribute to the growing literature on regulatory spillovers and voluntary disclosure by demonstrating that international regulations can influence domestic disclosure practices through risk-based channels, even in the absence of direct regulatory authority (Shroff et al., 2013; Leuz and Wysocki, 2016).

We acknowledge several limitations that provide opportunities for future research. First, our identification strategy relies on the assumption that AIFMD implementation represents an exogenous shock to U.S. firms' disclosure incentives. While plausible, alternative explanations for our findings cannot be entirely ruled out. Second, our measure of voluntary disclosure may not capture all relevant forms of information provision, particularly forward-looking disclosures that may be most sensitive to regulatory changes. Future research could employ more comprehensive disclosure measures or focus on specific types of risk-related disclosures that may be most directly affected by regulations like AIFMD.

Additionally, our analysis focuses on the immediate effects of AIFMD implementation, but the long-term consequences may differ as firms and markets adapt to the new regulatory environment. Longitudinal studies examining the persistence of these effects would provide valuable insights into the dynamic nature of regulatory spillovers. Finally, future research could explore cross-sectional variation in treatment effects based on firms' international exposure, institutional investor base, or industry characteristics to better understand the mechanisms through which international regulations influence domestic disclosure practices. Such analyses would enhance our understanding of how global regulatory initiatives shape information provision in interconnected capital markets and inform the design of more

effective international regulatory frameworks.

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Table 1

Descriptive Statistics

Variables	N	Mean	Std. Dev.	P25	Median	P75
FreqMF	15,692	0.5913	0.8884	0.0000	0.0000	1.6094
Treatment Effect	15,692	0.5712	0.4949	0.0000	1.0000	1.0000
Institutional ownership	15,692	0.5595	0.3285	0.2614	0.6210	0.8450
Firm size	15,692	6.0051	2.1100	4.4199	5.9902	7.4812
Book-to-market	15,692	0.7451	0.7210	0.3217	0.5901	0.9762
ROA	15,692	-0.0420	0.2522	-0.0329	0.0211	0.0659
Stock return	15,692	-0.0118	0.4912	-0.2998	-0.0832	0.1606
Earnings volatility	15,692	0.1362	0.2658	0.0235	0.0553	0.1398
Loss	15,692	0.3376	0.4729	0.0000	0.0000	1.0000
Class action litigation risk	15,692	0.3533	0.2930	0.1131	0.2561	0.5437
Time Trend	15,692	1.9108	1.4169	1.0000	2.0000	3.0000

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

Table 2
Pearson Correlations
Alternative Investment Fund Managers Directive AIFMD European Union Reputation Risk

	Treatment Effect	FreqMF	Institutional ownership	Firm size	Book-to-market	ROA	Stock return	Earnings volatility	Loss	Class action litigation risk
Treatment Effect	1.00	0.04	-0.04	0.12	-0.11	0.10	0.03	-0.04	-0.14	0.07
FreqMF	0.04	1.00	0.41	0.44	-0.17	0.22	-0.01	-0.16	-0.27	-0.01
Institutional ownership	-0.04	0.41	1.00	0.61	-0.20	0.29	-0.06	-0.22	-0.26	0.06
Firm size	0.12	0.44	0.61	1.00	-0.38	0.36	0.04	-0.25	-0.41	0.15
Book-to-market	-0.11	-0.17	-0.20	-0.38	1.00	0.04	-0.20	-0.12	0.13	-0.10
ROA	0.10	0.22	0.29	0.36	0.04	1.00	0.12	-0.52	-0.59	-0.07
Stock return	0.03	-0.01	-0.06	0.04	-0.20	0.12	1.00	0.01	-0.14	0.01
Earnings volatility	-0.04	-0.16	-0.22	-0.25	-0.12	-0.52	0.01	1.00	0.32	0.11
Loss	-0.14	-0.27	-0.26	-0.41	0.13	-0.59	-0.14	0.32	1.00	0.12
Class action litigation risk	0.07	-0.01	0.06	0.15	-0.10	-0.07	0.01	0.11	0.12	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 Alternative Investment Fund Managers Directive AIFMD European Union on Management Forecast Frequency**

	(1)	(2)	(3)
Treatment Effect	0.0641*** (7.17)	-0.0219** (2.00)	-0.0186** (2.03)
Institutional ownership		0.5646*** (12.29)	0.0602** (2.08)
Firm size		0.1162*** (12.51)	0.0484*** (4.84)
Book-to-market		-0.0306** (2.46)	-0.0014 (0.14)
ROA		0.0250 (0.76)	0.0462** (2.12)
Stock return		-0.0399*** (3.65)	-0.0101 (1.34)
Earnings volatility		-0.0293 (0.88)	-0.0104 (0.23)
Loss		-0.1577*** (7.86)	-0.0527*** (4.51)
Class action litigation risk		-0.1664*** (5.82)	-0.0134 (1.08)
Time Trend		0.0088* (1.91)	0.0165*** (4.30)
Firm fixed effects	No	No	Yes
N	15,692	15,692	15,692
R ²	0.0013	0.2381	0.9027

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