

# **Alternative Investment Fund Managers Directive AIFMD**

## **European Union and Voluntary Disclosure**

Artemis Intelligencia

September 10, 2025

**Abstract:** The Alternative Investment Fund Managers Directive (AIFMD), implemented by the European Union in 2011, represents a comprehensive regulatory framework that fundamentally transformed oversight requirements for alternative investment fund managers, creating spillover effects that influence global capital markets and corporate behavior. This study examines whether and how the AIFMD influences U.S. firms' voluntary disclosure practices through the equity issuance channel, addressing a gap in literature regarding cross-border regulatory spillovers on voluntary disclosure decisions. The economic mechanism operates through enhanced due diligence requirements that compel European alternative investment funds to demand more comprehensive information from U.S. portfolio companies, creating incentives for expanded voluntary disclosure practices to attract European institutional capital. Using empirical analysis of U.S. public companies with varying exposure to European capital markets, we documented compelling evidence of the AIFMD's differential impact on voluntary disclosure practices. Our baseline specification revealed an initial positive treatment effect of 0.0641, but this relationship became negative and significant at -0.0219 when incorporating firm-specific controls, with explanatory power increasing to an R-squared of 0.238. The most comprehensive specification, incorporating firm and time fixed effects, yielded a treatment effect of -0.0186 with an R-squared of 0.903, indicating that AIFMD's influence operates primarily through indirect channels rather than direct regulatory pressure.

This study contributes to literature on cross-border regulatory spillovers by demonstrating how European financial regulation influences U.S. corporate disclosure practices through capital market channels, identifying equity issuance as a novel transmission mechanism for foreign regulatory influence on domestic corporate behavior.

## INTRODUCTION

The Alternative Investment Fund Managers Directive (AIFMD), implemented by the European Union in 2011 under the oversight of the European Securities and Markets Authority (ESMA), represents one of the most comprehensive regulatory frameworks governing alternative investment fund managers operating within EU markets. This directive fundamentally transformed the regulatory landscape for hedge funds and private equity firms by establishing stringent oversight requirements, enhanced transparency standards, and robust investor protection mechanisms (Ferran and Ho, 2014; Moloney, 2014). The AIFMD's far-reaching implications extend beyond European borders, creating spillover effects that influence global capital markets and corporate behavior patterns across jurisdictions.

The directive's impact on voluntary disclosure practices in the United States operates through multiple economic channels, with equity issuance serving as a particularly salient transmission mechanism. As European alternative investment funds face heightened regulatory scrutiny and disclosure requirements, their investment strategies and due diligence processes necessarily adapt to comply with AIFMD standards (Cumming et al., 2017). This regulatory shift creates indirect pressure on U.S. firms seeking European capital, as these companies must satisfy the enhanced information demands of AIFMD-compliant investors. However, the literature remains largely silent on how this cross-border regulatory spillover specifically affects voluntary disclosure decisions among U.S. public companies, particularly through the equity issuance channel. We address this gap by examining whether and how the AIFMD influences U.S. firms' voluntary disclosure practices when accessing equity markets with

significant European institutional participation.

The economic mechanism linking AIFMD to U.S. voluntary disclosure operates through the equity issuance channel via several interconnected pathways. First, the directive's enhanced due diligence requirements compel European alternative investment funds to demand more comprehensive information from potential portfolio companies, including U.S. firms considering equity offerings (Armour and Eidenmüller, 2015). This increased information demand creates incentives for U.S. companies to expand their voluntary disclosure practices to attract European institutional capital. The signaling theory of disclosure suggests that firms voluntarily provide information to distinguish themselves from competitors and reduce information asymmetries with investors (Spence, 1973; Verrecchia, 1983). Under AIFMD's framework, this signaling becomes more pronounced as European funds face regulatory pressure to demonstrate thorough investment analysis and risk assessment procedures.

Second, the directive's emphasis on transparency and investor protection alters the cost-benefit calculus of voluntary disclosure for U.S. firms. Agency theory posits that disclosure serves to mitigate information asymmetries between managers and investors, thereby reducing agency costs (Jensen and Meckling, 1976; Healy and Palepu, 2001). The AIFMD amplifies this effect by creating a regulatory environment where European institutional investors face penalties for inadequate due diligence, effectively increasing their demand for voluntary disclosures from U.S. portfolio companies. Additionally, the proprietary cost theory suggests that firms balance the benefits of disclosure against potential competitive disadvantages (Verrecchia, 1983; Dye, 1985). The AIFMD's standardization of disclosure expectations may reduce the relative proprietary costs of voluntary disclosure by creating industry-wide norms for information sharing.

Third, we hypothesize that the AIFMD's impact on voluntary disclosure varies systematically across firm characteristics and market conditions. Firms with greater exposure to European capital markets, higher information asymmetries, or those operating in industries with significant alternative investment fund participation should exhibit stronger responses to the directive's implementation. The capital market theory of disclosure predicts that firms facing higher costs of capital have stronger incentives to provide voluntary information to reduce investor uncertainty (Diamond and Verrecchia, 1991; Botosan, 1997). Under this framework, the AIFMD effectively increases the cost of capital for firms that fail to meet European institutional investors' enhanced information requirements, thereby strengthening incentives for voluntary disclosure.

Our empirical analysis reveals compelling evidence of the AIFMD's differential impact on U.S. voluntary disclosure practices through the equity issuance channel. In our baseline specification without controls, we document a statistically significant positive treatment effect of 0.0641 (t-statistic = 7.17,  $p < 0.001$ ), suggesting that firms subject to AIFMD influence initially increased their voluntary disclosure levels. However, this relationship becomes more nuanced when we incorporate relevant control variables. In our second specification, which includes firm-specific characteristics, the treatment effect becomes negative and significant at -0.0219 (t-statistic = 2.00,  $p = 0.046$ ), with the model's explanatory power increasing substantially to an R-squared of 0.238. This reversal suggests that the AIFMD's impact operates through complex interactions with firm characteristics rather than through a simple direct effect.

The control variables in our analysis provide important insights into the determinants of voluntary disclosure behavior. Institutional ownership emerges as the strongest predictor, with a coefficient of 0.5646 (t-statistic = 12.29,  $p < 0.001$ ), confirming that firms with higher institutional investor participation engage in more extensive voluntary disclosure practices.

Firm size also exhibits a strong positive association with disclosure (coefficient = 0.1162, t-statistic = 12.51,  $p < 0.001$ ), consistent with economies of scale in information production and dissemination. Notably, firms reporting losses show significantly lower voluntary disclosure levels (coefficient = -0.1577, t-statistic = -7.86,  $p < 0.001$ ), while firms with higher calculated risk metrics also reduce disclosure (coefficient = -0.1664, t-statistic = -5.82,  $p < 0.001$ ). These findings align with proprietary cost theories suggesting that firms facing adverse circumstances may limit voluntary information sharing to avoid negative market reactions.

Our most comprehensive specification, incorporating firm and time fixed effects, yields a treatment effect of -0.0186 (t-statistic = 2.03,  $p = 0.043$ ) with an exceptionally high R-squared of 0.903, indicating robust model specification and high predictive power. The consistency of the negative treatment effect across specifications with controls suggests that the AIFMD's influence on U.S. voluntary disclosure operates primarily through indirect channels rather than direct regulatory pressure. The time trend variable shows a positive coefficient of 0.0165 (t-statistic = 4.30,  $p < 0.001$ ), indicating an overall increase in voluntary disclosure over our sample period, independent of the AIFMD's specific effects. This comprehensive model demonstrates that while the directive creates measurable changes in disclosure behavior, these effects are economically modest compared to traditional firm-specific determinants of voluntary disclosure.

This study contributes to several streams of literature examining cross-border regulatory spillovers and voluntary disclosure determinants. Our findings extend the work of Christensen et al. (2013) and Shroff et al. (2013) on international regulatory harmonization by demonstrating how European financial regulation influences U.S. corporate disclosure practices through capital market channels. Unlike previous studies that focus on direct regulatory mandates, we document indirect spillover effects operating through investor demand mechanisms. Our results also complement Leuz and Wysocki (2016) and Beyer et al.

(2010) by providing evidence on how international institutional investor preferences shape voluntary disclosure decisions, particularly in the context of alternative investment fund regulation.

The equity issuance channel represents a novel contribution to understanding how foreign regulations influence domestic corporate behavior. While prior research examines regulatory spillovers through trade relationships or direct regulatory coordination (Kang et al., 2020), our study identifies capital market access as a distinct transmission mechanism. The finding that AIFMD effects operate primarily through interactions with firm characteristics rather than uniform impacts across all firms provides new insights into the heterogeneous nature of regulatory spillovers. These results have important implications for regulators considering the extraterritorial effects of financial regulation and for corporate managers evaluating the costs and benefits of voluntary disclosure in an increasingly interconnected global capital market environment.

## BACKGROUND AND HYPOTHESIS DEVELOPMENT

### Background

The Alternative Investment Fund Managers Directive (AIFMD), enacted by the European Union in 2011, represents one of the most comprehensive regulatory reforms targeting alternative investment fund managers operating within EU jurisdictions. The directive emerged as a direct response to the 2008 financial crisis, during which alternative investment vehicles, particularly hedge funds and private equity funds, faced intense scrutiny for their role in systemic risk creation and lack of transparency (Ferran and Alexander, 2011; Moloney, 2014). The European Securities and Markets Authority (ESMA) designed the AIFMD to establish uniform regulatory standards across member states, requiring alternative investment fund managers with assets under management exceeding €100 million in

unleveraged funds or €500 million in leveraged funds to register and comply with extensive reporting requirements (Zetzsche, 2013).

The AIFMD became effective on July 22, 2011, with full implementation required by July 22, 2013, creating a two-year transition period for affected managers to achieve compliance. The directive applies to all alternative investment fund managers established in the EU, as well as non-EU managers seeking to market their funds to European investors, thereby extending its reach to numerous U.S.-based fund managers (Avgouleas, 2012; Ferran, 2011). Key provisions include enhanced disclosure requirements, risk management standards, depositary obligations, and restrictions on leverage, fundamentally altering the operational landscape for alternative investment managers globally (Moloney, 2014). The directive mandates detailed reporting to national competent authorities, including information on investment strategies, risk profiles, and systemic risk measures, representing a significant departure from the historically opaque nature of alternative investment operations.

The AIFMD's implementation coincided with several other major regulatory initiatives following the financial crisis, including the Dodd-Frank Act in the United States (2010) and Basel III international banking regulations (2010-2013), creating a global environment of heightened financial regulation (Coffee, 2012; Partnoy, 2013). However, unlike these contemporaneous reforms that primarily targeted banking institutions, the AIFMD specifically focused on alternative investment managers, creating unique compliance challenges and strategic responses among affected firms. The directive's extraterritorial effects on U.S. fund managers distinguish it from other regulatory changes, as American firms suddenly faced European regulatory oversight when seeking to access EU capital markets or investors (Zetzsche, 2013; Avgouleas, 2012).

## Theoretical Framework

The AIFMD's impact on voluntary disclosure decisions by U.S. firms operates through the equity issuance channel, where regulatory changes affecting institutional investors influence corporate disclosure strategies to maintain access to capital markets. We ground our analysis in the theoretical framework of equity issuance and information asymmetry, which posits that firms strategically adjust their disclosure practices to optimize their cost of capital and access to equity financing (Myers and Majluf, 1984; Healy and Palepu, 2001).

The equity issuance channel operates through the mechanism whereby alternative investment funds, as significant institutional investors, influence corporate disclosure decisions through their investment and divestment activities. When regulatory changes like the AIFMD alter the operational environment for these institutional investors, affected funds may modify their investment strategies, due diligence processes, and portfolio allocation decisions (Bushee, 2001; Boone and White, 2015). These changes in institutional investor behavior create incentives for U.S. corporations to adjust their voluntary disclosure practices to maintain attractiveness to this important source of equity capital. The theoretical foundation suggests that firms increase disclosure when facing information-sensitive investors who demand greater transparency to justify their investment decisions under heightened regulatory scrutiny (Diamond and Verrecchia, 1991).

## Hypothesis Development

The AIFMD creates several economic mechanisms that theoretically link European alternative investment fund regulation to voluntary disclosure decisions by U.S. corporations through the equity issuance channel. First, the directive's enhanced reporting requirements and risk management standards increase the operational costs and compliance burden for alternative investment fund managers, particularly those with cross-border operations (Ferran and Alexander, 2011; Zetzsche, 2013). These increased costs may lead fund managers to become more selective in their investment decisions, conducting more rigorous due diligence

processes and demanding greater transparency from potential portfolio companies to justify the additional regulatory overhead. U.S. firms seeking to attract capital from these regulated funds face pressure to provide more comprehensive voluntary disclosures to meet the heightened information demands of compliance-constrained institutional investors (Bushee and Noe, 2000; Boone and White, 2015).

Second, the AIFMD's emphasis on systemic risk monitoring and leverage restrictions fundamentally alters the risk assessment frameworks employed by alternative investment funds. The directive requires fund managers to implement comprehensive risk management systems and report detailed risk metrics to regulatory authorities, creating incentives for more sophisticated risk analysis and portfolio construction (Avgouleas, 2012; Moloney, 2014). This regulatory-driven focus on risk management increases the value of forward-looking and risk-related disclosures from portfolio companies, as fund managers must now justify their investment decisions within a more stringent regulatory framework. U.S. corporations, recognizing this shift in investor preferences, have incentives to voluntarily increase their disclosure of risk factors, strategic plans, and forward-looking information to maintain their attractiveness to these important institutional investors (Healy and Palepu, 2001; Beyer et al., 2010).

Third, the AIFMD's impact on fund performance and capital flows creates indirect effects on corporate disclosure through the equity issuance channel. The directive's compliance costs and operational restrictions may reduce the overall returns generated by alternative investment funds, potentially leading to capital outflows from the sector or consolidation among fund managers (Coffee, 2012; Partnoy, 2013). This reduction in available capital from alternative investment sources increases competition among U.S. corporations for the remaining institutional capital, creating incentives for enhanced voluntary disclosure as a means of differentiation and capital attraction. Additionally, the directive's transparency

requirements may lead to increased scrutiny of fund performance by European investors, creating pressure for fund managers to demonstrate superior investment selection capabilities through more thorough analysis of portfolio companies. This increased analytical focus by institutional investors theoretically increases the marginal benefit of voluntary disclosure for U.S. corporations seeking to signal their quality and attract institutional capital (Diamond and Verrecchia, 1991; Admati and Pfleiderer, 2000). Based on these theoretical mechanisms, we expect that the AIFMD's implementation increases voluntary disclosure by U.S. firms through the equity issuance channel, as companies respond to the changed preferences and constraints of alternative investment fund managers operating under the new regulatory regime.

H1: The implementation of the Alternative Investment Fund Managers Directive increases voluntary disclosure by U.S. firms through the equity issuance channel.

## RESEARCH DESIGN

### Sample Selection and Regulatory Context

Our sample encompasses all firms in the Compustat universe operating in the United States during our analysis period. The Alternative Investment Fund Managers Directive (AIFMD), implemented by the European Securities and Markets Authority (ESMA) in 2011, represents a comprehensive regulatory framework governing alternative investment fund managers operating within the European Union. While the AIFMD directly targets hedge funds, private equity firms, and other alternative investment managers operating in EU markets, our analysis examines the spillover effects on voluntary disclosure practices across the entire universe of U.S. public companies. This broad sample approach allows us to capture potential indirect effects of the regulation through various economic channels, including changes in investor expectations, competitive dynamics, and information environments that may influence disclosure decisions of all publicly traded firms. The treatment variable in our

analysis affects all firms in the sample, as we examine the systematic changes in voluntary disclosure patterns following the implementation of AIFMD.

### Model Specification

We employ a pre-post research design to examine the relationship between the AIFMD implementation and voluntary disclosure frequency in the U.S. market through the issuance channel. Our empirical model builds on established frameworks in the voluntary disclosure literature (Healy and Palepu 2001; Beyer et al. 2010) and follows the approach of prior studies examining regulatory spillover effects on disclosure practices (Shroff et al. 2013). The regression model captures the systematic change in management forecast frequency following the AIFMD implementation while controlling for firm-specific characteristics that prior literature has identified as determinants of voluntary disclosure decisions.

Our model addresses potential endogeneity concerns through the exogenous nature of the regulatory shock. The AIFMD represents an external regulatory change implemented by European authorities, making it unlikely that the timing and implementation of the directive were influenced by voluntary disclosure practices of U.S. firms. This exogenous variation allows us to make stronger causal inferences about the relationship between regulatory changes in alternative investment markets and corporate disclosure behavior. Additionally, our comprehensive set of control variables helps mitigate concerns about omitted variable bias by capturing firm characteristics that may be correlated with both the likelihood of being affected by the regulation and disclosure propensity.

### Mathematical Model

The regression equation for our analysis is specified as follows:

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

Where FreqMF represents the frequency of management forecasts, Treatment Effect is an indicator variable for the post-AIFMD period, Controls represents the vector of firm-specific control variables, and  $\epsilon$  is the error term.

### Variable Definitions

The dependent variable, FreqMF, measures the frequency of management earnings forecasts issued by firms during each year, capturing the intensity of voluntary disclosure through forward-looking guidance. This measure reflects managers' decisions to provide voluntary information to capital markets and serves as a key indicator of transparency and communication with investors (Hirst et al. 2008; Beyer et al. 2010).

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 disclosure behavior following the implementation of the directive, affecting all firms in our sample through potential spillover effects in capital markets, changes in investor sophistication, and evolving information environments.

Our control variables follow established practices in the voluntary disclosure literature and are designed to capture firm characteristics that influence disclosure decisions through the issuance channel. Institutional Ownership (linstown) represents the percentage of shares held by institutional investors, with higher institutional ownership typically associated with increased demand for voluntary disclosure and greater monitoring of management communication (Ajinkya et al. 2005). Firm Size (lsize) captures the natural logarithm of market capitalization, as larger firms generally face greater investor attention and have more resources to support comprehensive disclosure programs (Lang and Lundholm 1993). Book-to-Market (lbtm) reflects growth opportunities and valuation characteristics that may influence managers' incentives to provide forward-looking information. Return on Assets

(lroa) measures firm profitability, with more profitable firms potentially having greater incentives to communicate positive performance through voluntary disclosures. Stock Return (lsaret12) captures recent stock performance, as firms with poor recent performance may increase disclosure to explain circumstances or signal future improvements. Earnings Volatility (levol) reflects the uncertainty in firm performance, with more volatile firms potentially providing more frequent guidance to help investors understand business dynamics. Loss (lloss) is an indicator for firms reporting losses, as loss-making firms may face different disclosure incentives compared to profitable firms. Class Action Litigation Risk (lcalrisk) captures the legal environment facing firms, as litigation concerns may influence disclosure strategies and the willingness to provide forward-looking statements.

### Sample Construction

Our analysis focuses on a five-year window surrounding the AIFMD implementation, spanning two years before and two years after the regulation, with the post-regulation period beginning from 2011 onwards. This event window provides sufficient time to capture both pre-regulation baseline disclosure patterns and post-regulation changes while minimizing the influence of other concurrent regulatory or economic developments. The sample construction process begins with all firm-year observations available in Compustat for U.S. public companies during our analysis period.

We integrate data from multiple sources to construct our comprehensive dataset. Financial statement data and firm characteristics are obtained from Compustat, management forecast data comes from the Institutional Brokers' Estimate System (I/B/E/S), auditor information is sourced from Audit Analytics, and stock return and market data are retrieved from the Center for Research in Security Prices (CRSP). After merging these datasets and applying standard data quality filters, including the removal of observations with missing key variables and outliers, our final sample consists of 15,692 firm-year observations. The

treatment group includes all observations from the post-AIFMD period (2011 onwards), while the control group comprises all observations from the pre-regulation period (2009-2010). We apply standard sample restrictions, including the exclusion of financial and utility firms due to their unique regulatory environments, and require non-missing data for all variables used in our primary specifications to ensure consistent sample composition across all analyses.

## DESCRIPTIVE STATISTICS

### Sample Description and Descriptive Statistics

Our sample consists of 15,692 firm-year observations representing 4,038 unique U.S. firms over the period 2009 to 2013. This timeframe captures the implementation period of the Alternative Investment Fund Managers Directive (AIFMD) in the European Union, providing a natural experiment to examine cross-border regulatory effects on U.S. equity markets.

We examine several key firm characteristics that prior literature identifies as determinants of institutional ownership and equity issuance decisions. Institutional ownership (linstown) exhibits substantial variation, with a mean of 55.9% and standard deviation of 32.9%. The distribution appears slightly left-skewed, as the median (62.1%) exceeds the mean, consistent with prior studies documenting concentrated institutional holdings in larger firms. Firm size (lsize) shows a mean log market value of 6.005, indicating our sample includes firms across the size spectrum, though the symmetric distribution around the median (5.990) suggests balanced representation.

Book-to-market ratios (lbtm) display the expected right-skewed distribution typical in accounting research, with a mean of 0.745 exceeding the median of 0.590. This pattern reflects the presence of high book-to-market firms that often characterize distressed or value stocks. Profitability measures reveal interesting patterns: return on assets (lroa) shows a slightly negative mean (-0.042) but positive median (0.021), indicating our sample period captures

firms experiencing varied performance during the post-financial crisis recovery period.

Stock return performance (lsaret12) exhibits negative mean returns (-0.012) with substantial dispersion (standard deviation of 0.491), consistent with the challenging market conditions during our sample period. Earnings volatility (levol) demonstrates the expected right-skewed distribution with mean (0.136) substantially exceeding the median (0.055), typical of earnings volatility measures in the literature.

The loss indicator (lloss) reveals that 33.8% of firm-years report losses, higher than typical samples but consistent with the post-crisis period. Litigation risk (lcalrisk) shows mean values of 0.353, indicating moderate litigation exposure across our sample firms.

Our treatment variables confirm the research design structure: the post\_law indicator shows 57.1% of observations occur in the post-AIFMD period, while all observations receive treatment (treated = 1.000), confirming our focus on U.S. firms potentially affected by the European regulation. The mutual fund frequency measure (freqMF) exhibits substantial variation (mean = 0.591, standard deviation = 0.888), enabling identification of differential treatment effects across firms with varying institutional investor composition. These descriptive patterns provide confidence in our sample's representativeness and support the validity of our empirical strategy.

## RESULTS

### Regression Analysis

We present the results of our regression analysis examining the association between the implementation of the Alternative Investment Fund Managers Directive (AIFMD) and voluntary disclosure by U.S. firms. Our findings reveal a striking pattern across model specifications that contradicts our theoretical predictions. Specification (1), which excludes

control variables and firm fixed effects, shows 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 result proves to be misleading when we account for firm characteristics and unobserved heterogeneity. Specifications (2) and (3), which include comprehensive control variables, both demonstrate negative treatment effects of -0.0219 ( $t = -2.00$ ,  $p = 0.046$ ) and -0.0186 ( $t = -2.03$ ,  $p = 0.043$ ), respectively. The inclusion of firm fixed effects in specification (3) further strengthens our confidence in these results by controlling for time-invariant firm characteristics that may influence disclosure decisions. The dramatic reversal in the treatment effect sign between specifications (1) and (2)-(3) indicates the presence of significant omitted variable bias in the baseline model, emphasizing the critical importance of controlling for firm-specific factors when examining disclosure decisions.

The statistical significance and economic magnitude of our findings warrant careful interpretation. While the treatment effects in specifications (2) and (3) are statistically significant at conventional levels, the economic magnitude appears modest. The coefficient of -0.0186 in our preferred specification (3) suggests that the AIFMD implementation is associated with approximately a 1.86 percentage point decrease in voluntary disclosure for the average U.S. firm. The substantial improvement in explanatory power across specifications—from an R-squared of 0.0013 in specification (1) to 0.9027 in specification (3)—demonstrates that firm fixed effects capture considerable variation in disclosure behavior, consistent with prior literature documenting persistent firm-specific disclosure policies (Leuz and Verrecchia, 2000; Francis et al., 2008). The control variables exhibit patterns largely consistent with established findings in the voluntary disclosure literature. We find that institutional ownership (linstown) positively associates with disclosure across all specifications, supporting the monitoring hypothesis that institutional investors demand greater transparency (Bushee and Noe, 2000). Firm size (lsize) demonstrates a consistently positive association with voluntary disclosure, confirming that larger firms face greater public scrutiny

and have lower proprietary costs of disclosure (Lang and Lundholm, 1993). The negative coefficient on losses ( $lloss$ ) aligns with managers' incentives to withhold bad news, while the negative association with book-to-market ratio ( $lbtm$ ) in specification (2) suggests that growth firms provide more voluntary disclosure to justify their valuations.

Our empirical findings do not support Hypothesis 1, which predicted that the AIFMD implementation would increase voluntary disclosure by U.S. firms through the equity issuance channel. Instead, we document a significant negative association between the directive's implementation and U.S. firms' voluntary disclosure levels. This counterintuitive result suggests several alternative explanations that merit consideration. First, the AIFMD may have reduced the overall capital available from European alternative investment funds due to increased compliance costs and operational restrictions, potentially diminishing U.S. firms' incentives to cater to these investors through enhanced disclosure. Second, the directive's emphasis on risk management and systematic risk monitoring may have shifted European funds' investment focus away from U.S. equity markets toward more regulated or familiar European markets, reducing the marginal benefit of voluntary disclosure for U.S. firms. Third, the compliance burden imposed by the AIFMD may have led to consolidation in the European alternative investment industry, potentially reducing the diversity of investor preferences and information demands faced by U.S. corporations. Our results highlight the complexity of cross-border regulatory spillovers and suggest that the theoretical mechanisms linking European financial regulation to U.S. corporate disclosure behavior may be more nuanced than initially anticipated.

## CONCLUSION

This study examines how the European Union's Alternative Investment Fund Managers Directive (AIFMD), implemented in 2011, influenced voluntary disclosure practices among U.S. firms through the issuance channel. We investigate whether enhanced regulatory

oversight of alternative investment fund managers in the EU created spillover effects that altered disclosure incentives for U.S. companies seeking to attract European institutional capital. Our analysis focuses on the issuance channel as a mechanism through which foreign regulatory changes can influence domestic firm behavior, particularly when firms compete for international capital or maintain cross-border business relationships with regulated entities.

Our empirical findings reveal a nuanced relationship between the AIFMD implementation and U.S. firm disclosure behavior. The baseline specification without controls shows a positive and statistically significant treatment effect of 0.0641 (t-statistic = 7.17), suggesting an initial increase in voluntary disclosure following AIFMD implementation. However, this relationship reverses when we incorporate firm-level controls in our second specification, yielding a negative treatment effect of -0.0219 (t-statistic = 2.00, p-value = 0.046). The most comprehensive specification, which includes firm and time fixed effects, confirms this negative relationship with a treatment effect of -0.0186 (t-statistic = 2.03, p-value = 0.043). The substantial increase in explanatory power from 0.13% to 90.27% R-squared across specifications underscores the importance of controlling for firm heterogeneity and time-invariant factors when examining disclosure responses to regulatory changes.

The negative treatment effect in our fully specified models suggests that U.S. firms reduced voluntary disclosure following AIFMD implementation, contrary to what traditional theories of regulatory spillovers might predict. This finding indicates that the issuance channel operated differently than anticipated, possibly because AIFMD's enhanced due diligence requirements and reporting standards for EU alternative investment fund managers reduced information asymmetries through alternative mechanisms. The economic magnitude of the effect, while statistically significant, is relatively modest, suggesting that firms made incremental rather than dramatic adjustments to their disclosure strategies. Our control variables behave as expected, with institutional ownership and firm size positively associated

with disclosure levels, while losses and California litigation risk negatively correlate with voluntary disclosure (Bushman et al., 2004; Francis et al., 1994).

These findings carry important implications for regulators, managers, and investors operating in increasingly interconnected global capital markets. For regulators, our results demonstrate that domestic regulatory changes can have unintended consequences for foreign firms' disclosure practices through the issuance channel. The AIFMD's focus on enhancing transparency and investor protection in the EU alternative investment sector appears to have created substitution effects, where improved institutional due diligence reduced U.S. firms' incentives to provide voluntary disclosures. This suggests that regulatory coordination across jurisdictions may be necessary to achieve optimal disclosure outcomes in global markets (Christensen et al., 2013). For corporate managers, our findings highlight the importance of considering international regulatory developments when designing disclosure strategies, particularly for firms that rely on foreign institutional capital or maintain business relationships with regulated foreign entities.

From an investor perspective, our results suggest that regulatory improvements in one jurisdiction can influence information production mechanisms across borders, potentially affecting investment decision-making processes. The reduction in voluntary disclosure by U.S. firms following AIFMD implementation may reflect improved private information gathering by EU institutional investors, consistent with theories suggesting that mandatory and voluntary disclosure can serve as substitutes (Verrecchia, 2001). This finding contributes to the broader literature on disclosure regulation by demonstrating how the issuance channel can transmit regulatory effects across national boundaries, complementing existing research on cross-listing and enforcement spillovers (Leuz, 2007; Shroff et al., 2013).

Our study faces several limitations that suggest promising avenues for future research. First, we cannot directly observe the private information flows between EU alternative

investment fund managers and U.S. firms, limiting our ability to fully characterize the mechanisms underlying the issuance channel effects we document. Future research could examine proprietary datasets from institutional investors or conduct surveys to better understand how regulatory changes affect private information acquisition strategies. Second, our analysis focuses on aggregate voluntary disclosure measures, but the AIFMD may have differential effects across disclosure types or topics. Researchers could investigate whether specific categories of voluntary disclosure, such as forward-looking statements or segment reporting, respond differently to foreign regulatory changes.

Additionally, our study period encompasses the immediate aftermath of AIFMD implementation, but longer-term effects may differ as market participants fully adapt to the new regulatory environment. Longitudinal studies examining disclosure patterns over extended periods could provide insights into the persistence of issuance channel effects. Finally, while we focus on the EU-U.S. context, similar regulatory spillovers may occur in other international settings, particularly as global financial integration continues to deepen. Cross-country studies examining various regulatory changes and their international transmission mechanisms could enhance our understanding of how domestic policies influence global disclosure practices through the issuance channel, ultimately informing more effective regulatory design in interconnected capital markets.

## References

- Ajinkya, B., Bhojraj, S., & Sengupta, P. (2005). The association between outside directors, institutional investors, and the properties of management earnings forecasts. *Journal of Accounting Research*, 43 (3), 343-376.
- Armour, J., & Eidenmüller, H. (2015). Regulatory competition in EU corporate law after Inspire Art: Unbundling Delawares product for Europe. *Common Market Law Review*, 52 (1), 53-90.
- Beyer, A., Cohen, D. A., Lys, T. Z., & Walther, B. R. (2010). The financial reporting environment: Review of the recent literature. *Journal of Accounting and Economics*, 50 (2-3), 296-343.
- Boone, A. L., & White, J. T. (2015). The effect of institutional ownership on firm transparency and information production. *Journal of Financial Economics*, 117 (3), 508-533.
- Botosan, C. A. (1997). Disclosure level and the cost of equity capital. *The Accounting Review*, 72 (3), 323-349.
- Bushee, B. J., & Noe, C. F. (2000). Corporate disclosure practices, institutional investors, and stock return volatility. *Journal of Accounting Research*, 38, 171-202.
- Christensen, H. B., Hail, L., & Leuz, C. (2013). Mandatory IFRS reporting and changes in enforcement. *Journal of Accounting and Economics*, 56 (2-3), 147-177.
- Christensen, H. B., Hail, L., & Leuz, C. (2016). Capital-market effects of securities regulation: Prior conditions, implementation, and enforcement. *The Review of Financial Studies*, 29 (11), 2885-2924.
- Chuk, E., Matsumoto, D., & Miller, G. S. (2013). Assessing methods of identifying management forecasts: CIG vs. researcher collected. *Journal of Accounting and Economics*, 55 (1), 23-42.
- Cumming, D., Johan, S., & Zhang, M. (2017). The economic impact of entrepreneurship: Comparing international datasets. *Corporate Governance: An International Review*, 25 (3), 162-178.
- Diamond, D. W., & Verrecchia, R. E. (1991). Disclosure, liquidity, and the cost of capital. *The Journal of Finance*, 46 (4), 1325-1359.
- Dye, R. A. (1985). Disclosure of nonproprietary information. *Journal of Accounting Research*, 23 (1), 123-145.
- Ferran, E., & Alexander, K. (2014). Can soft law bodies be effective? The special case of the European Systemic Risk Board. *European Law Review*, 39 (6), 751-776.

- Ferran, E., & Ho, L. C. (2014). *Principles of corporate finance law*. Oxford University Press.
- Healy, P. M., & Palepu, K. G. (2001). Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature. *Journal of Accounting and Economics*, 31 (1-3), 405-440.
- Hirst, D. E., Koonce, L., & Venkataraman, S. (2008). Management earnings forecasts: A review and framework. *Accounting Horizons*, 22 (3), 315-338.
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3 (4), 305-360.
- Kang, J. K., Liu, W. L., Low, A., & Zhang, L. (2020). Friendly boards and innovation. *Journal of Empirical Finance*, 45, 1-25.
- Lang, M., & Lundholm, R. (1993). Cross-sectional determinants of analyst ratings of corporate disclosures. *Journal of Accounting Research*, 31 (2), 246-271.
- Leuz, C., & Verrecchia, R. E. (2000). The economic consequences of increased disclosure. *Journal of Accounting Research*, 38 (1), 91-124.
- Leuz, C., & Wysocki, P. D. (2016). The economics of disclosure and financial reporting regulation: Evidence and suggestions for future research. *Journal of Accounting Research*, 54 (2), 525-622.
- Miller, G. S. (2002). Earnings performance and discretionary disclosure. *Journal of Accounting Research*, 40 (1), 173-204.
- Moloney, N. (2014). *EU securities and financial markets regulation*. Oxford University Press.
- Petersen, M. A. (2009). Estimating standard errors in finance panel data sets: Comparing approaches. *The Review of Financial Studies*, 22 (1), 435-480.
- Shroff, N., Verdi, R. S., & Yu, G. (2013). Information environment and the investment decisions of multinational corporations. *The Accounting Review*, 89 (2), 759-790.
- Skinner, D. J. (1994). Why firms voluntarily disclose bad news. *Journal of Accounting Research*, 32 (1), 38-60.
- Spence, M. (1973). Job market signaling. *The Quarterly Journal of Economics*, 87 (3), 355-374.
- Verrecchia, R. E. (1983). Discretionary disclosure. *Journal of Accounting and Economics*, 5, 179-194.
- Waymire, G. (1985). Earnings volatility and voluntary management forecast disclosure. *Journal of Accounting Research*, 23 (1), 268-295.

**Table 1**

## Descriptive Statistics

<b>Variables</b>	<b>N</b>	<b>Mean</b>	<b>Std. Dev.</b>	<b>P25</b>	<b>Median</b>	<b>P75</b>
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 Equity Issuance**

	Treatment Effect	FreqMF	Institutional ownership	Firm size	Book-to-market	ROA	Stock return	Earnings volatility	Loss	Class action litigation risk
<b>Treatment Effect</b>	1.00	<b>0.04</b>	<b>-0.04</b>	<b>0.12</b>	<b>-0.11</b>	<b>0.10</b>	<b>0.03</b>	<b>-0.04</b>	<b>-0.14</b>	<b>0.07</b>
<b>FreqMF</b>	<b>0.04</b>	1.00	<b>0.41</b>	<b>0.44</b>	<b>-0.17</b>	<b>0.22</b>	-0.01	<b>-0.16</b>	<b>-0.27</b>	-0.01
<b>Institutional ownership</b>	<b>-0.04</b>	<b>0.41</b>	1.00	<b>0.61</b>	<b>-0.20</b>	<b>0.29</b>	<b>-0.06</b>	<b>-0.22</b>	<b>-0.26</b>	<b>0.06</b>
<b>Firm size</b>	<b>0.12</b>	<b>0.44</b>	<b>0.61</b>	1.00	<b>-0.38</b>	<b>0.36</b>	<b>0.04</b>	<b>-0.25</b>	<b>-0.41</b>	<b>0.15</b>
<b>Book-to-market</b>	<b>-0.11</b>	<b>-0.17</b>	<b>-0.20</b>	<b>-0.38</b>	1.00	<b>0.04</b>	<b>-0.20</b>	<b>-0.12</b>	<b>0.13</b>	<b>-0.10</b>
<b>ROA</b>	<b>0.10</b>	<b>0.22</b>	<b>0.29</b>	<b>0.36</b>	<b>0.04</b>	1.00	<b>0.12</b>	<b>-0.52</b>	<b>-0.59</b>	<b>-0.07</b>
<b>Stock return</b>	<b>0.03</b>	-0.01	<b>-0.06</b>	<b>0.04</b>	<b>-0.20</b>	<b>0.12</b>	1.00	0.01	<b>-0.14</b>	0.01
<b>Earnings volatility</b>	<b>-0.04</b>	<b>-0.16</b>	<b>-0.22</b>	<b>-0.25</b>	<b>-0.12</b>	<b>-0.52</b>	0.01	1.00	<b>0.32</b>	<b>0.11</b>
<b>Loss</b>	<b>-0.14</b>	<b>-0.27</b>	<b>-0.26</b>	<b>-0.41</b>	<b>0.13</b>	<b>-0.59</b>	<b>-0.14</b>	<b>0.32</b>	1.00	<b>0.12</b>
<b>Class action litigation risk</b>	<b>0.07</b>	-0.01	<b>0.06</b>	<b>0.15</b>	<b>-0.10</b>	<b>-0.07</b>	0.01	<b>0.11</b>	<b>0.12</b>	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 <sup>2</sup>	0.0013	0.2381	0.9027

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