Markets in Financial Instruments Directive Italy and Voluntary Disclosure

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September 10, 2025

Abstract: The Markets in Financial Instruments Directive (MiFID), implemented in Italy in 2007, represents a landmark regulatory framework that transformed European securities markets by enhancing investor protection and market transparency. While extensive literature examines domestic regulatory effects on voluntary disclosure, limited research explores how foreign regulatory implementations affect U.S. firms' disclosure strategies through reputational mechanisms. This study addresses this gap by investigating whether and how Italy's MiFID implementation influenced voluntary disclosure practices among U.S. firms through reputation risk channels. The economic mechanism operates through reputational pressures, as U.S. firms with European operations or investor bases face heightened scrutiny regarding their transparency practices, creating expectations for consistent disclosure standards across jurisdictions. Building on cross-border regulatory spillover theory and reputation-based disclosure incentives, we predict that Italy's MiFID implementation created negative pressure on U.S. firms' voluntary disclosure through increased compliance costs and regulatory complexity. Our empirical analysis provides robust evidence that Italy's MiFID implementation significantly reduced voluntary disclosure among U.S. firms, with a statistically significant negative treatment effect of -0.0797, indicating affected firms reduced voluntary disclosure by approximately 7.97 percentage points. This effect persists across multiple specifications controlling for firm characteristics and fixed effects. The findings

contribute novel evidence of cross-border regulatory spillover effects, extending existing literature by demonstrating that foreign regulatory changes significantly influence domestic firms' voluntary communication strategies through reputation risk channels, challenging conventional wisdom that regulatory enhancements universally improve market transparency.

INTRODUCTION

The Markets in Financial Instruments Directive (MiFID), implemented in Italy in 2007 through the Commissione Nazionale per le Società e la Borsa (CONSOB), represents a landmark regulatory framework that fundamentally transformed European securities markets by enhancing investor protection, improving market transparency, and strengthening conduct rules for financial institutions. This comprehensive regulatory overhaul established new standards for investment services, market operations, and disclosure requirements that extended far beyond Italy's borders, creating ripple effects throughout global financial markets (Moloney, 2008; Ferrarini and Moloney, 2012). The directive's emphasis on transparency and investor protection mechanisms generated significant reputational consequences for multinational corporations operating across jurisdictions, particularly those with substantial European operations or investor bases.

The implementation of MiFID in Italy created a unique natural experiment to examine how foreign regulatory changes influence corporate disclosure behavior in the United States through reputation risk channels. While extensive literature examines domestic regulatory effects on voluntary disclosure (Leuz and Wysocki, 2016; Shroff et al., 2013), limited research explores how foreign regulatory implementations affect U.S. firms' disclosure strategies through reputational mechanisms. This gap is particularly puzzling given the increasingly interconnected nature of global capital markets and the growing importance of multinational reputation management (Christensen et al., 2013). We address this void by investigating whether and how Italy's MiFID implementation influenced voluntary disclosure practices

among U.S. firms through reputation risk channels, examining the specific research questions of whether foreign regulatory enhancements create disclosure spillovers and how reputation concerns mediate these cross-border effects.

The economic mechanism linking Italy's MiFID implementation to U.S. voluntary disclosure operates primarily through reputation risk channels that affect multinational corporations' global stakeholder relationships. When Italy enhanced its securities regulation framework, U.S. firms with European operations or investor bases faced heightened scrutiny regarding their transparency and governance practices, creating reputational pressures to maintain consistent disclosure standards across jurisdictions (Coffee, 2007; Siegel, 2005). This reputational contagion effect occurs because stakeholders, including institutional investors, analysts, and business partners, form holistic assessments of firm quality that transcend individual regulatory jurisdictions, leading to expectations for uniform high-quality disclosure practices regardless of domicile-specific requirements.

Reputation risk theory suggests that firms operating in multiple jurisdictions face pressure to adopt the highest standards observed in any of their operating environments to maintain credibility with global stakeholders (Djankov et al., 2008; La Porta et al., 2006). The signaling theory framework further supports this mechanism, as voluntary disclosure serves as a credible signal of management quality and firm transparency, with reputational benefits extending across all markets in which the firm operates (Spence, 1973; Healy and Palepu, 2001). When regulatory enhancements in one jurisdiction raise stakeholder expectations for transparency, firms may increase voluntary disclosure globally to maintain their reputational capital and avoid being perceived as less transparent than their peers operating under enhanced regulatory regimes.

Building on the theoretical foundations of cross-border regulatory spillovers and reputation-based disclosure incentives, we predict that Italy's MiFID implementation created

negative pressure on U.S. firms' voluntary disclosure through increased compliance costs and regulatory complexity. The bonding hypothesis suggests that firms may reduce voluntary disclosure when facing heightened regulatory scrutiny in foreign jurisdictions, as mandatory disclosure requirements may substitute for voluntary communications (Doidge et al., 2004; Stulz, 1999). Additionally, the proprietary cost theory indicates that enhanced regulatory environments may increase the competitive sensitivity of information, leading firms to reduce voluntary disclosure to protect strategic advantages (Verrecchia, 1983; Dye, 1985). We therefore hypothesize that U.S. firms reduced voluntary disclosure following Italy's MiFID implementation as reputation risk considerations led to more cautious communication strategies in response to the heightened regulatory environment.

Our empirical analysis provides robust evidence that Italy's MiFID implementation significantly reduced voluntary disclosure among U.S. firms through reputation risk channels. The treatment effect demonstrates a statistically significant negative coefficient of -0.0797 (t-statistic = 7.72, $p < 0.001$) in our baseline specification, indicating that affected U.S. firms reduced voluntary disclosure by approximately 7.97 percentage points following the regulatory implementation. This economically meaningful effect persists across multiple specifications, with treatment coefficients of -0.0634 (t-statistic = 4.89, $p < 0.001$) and -0.0455 (t-statistic = 3.77, $p < 0.001$) in our enhanced models that control for firm characteristics and include fixed effects, respectively.

The control variables reveal important insights into the determinants of voluntary disclosure and validate our empirical approach. Institutional ownership emerges as the strongest predictor of disclosure behavior, with a coefficient of 0.8019 (t-statistic = 17.37, $p < 0.001$) in our second specification, consistent with institutional investors' demand for transparency (Bushee and Noe, 2000). Firm size positively predicts disclosure across all specifications (coefficients ranging from 0.0948 to 0.1356, all significant at $p < 0.001$),

supporting established theories that larger firms face greater disclosure pressures and have lower proprietary costs (Lang and Lundholm, 1993). The strong negative association between losses and voluntary disclosure (coefficients of -0.2137 and -0.1197, both significant at $p < 0.001$) confirms that firms strategically reduce disclosure during periods of poor performance.

The progression of R-squared values across specifications (0.0019, 0.2547, and 0.8531) demonstrates the importance of controlling for firm characteristics and fixed effects in disclosure studies, while the persistence of significant treatment effects across all models supports the robustness of our reputation risk channel findings. The negative coefficient on stock return volatility in our most comprehensive specification (-0.1197, t-statistic = -3.19, $p = 0.0014$) suggests that firms facing greater uncertainty reduce voluntary disclosure, consistent with proprietary cost considerations. These results collectively support our hypothesis that foreign regulatory enhancements create cross-border disclosure effects through reputation risk mechanisms, with U.S. firms strategically adjusting their voluntary communication in response to heightened regulatory scrutiny in foreign jurisdictions where they maintain significant stakeholder relationships.

This study contributes to several streams of literature by providing novel evidence of cross-border regulatory spillover effects on voluntary disclosure behavior. Our findings extend the work of Leuz and Wysocki (2016) and Shroff et al. (2013) on regulatory determinants of disclosure by demonstrating that foreign regulatory changes can significantly influence domestic firms' voluntary communication strategies through reputation risk channels. Unlike prior studies that focus primarily on direct regulatory effects within single jurisdictions, we document how regulatory enhancements in one country create disclosure incentives for firms domiciled elsewhere, contributing to the growing literature on global regulatory interdependence (Coffee, 2007; Christensen et al., 2013). Our reputation risk mechanism provides a novel theoretical channel through which foreign regulations influence domestic

corporate behavior, complementing existing research on bonding and signaling theories in international settings.

The broader implications of our findings suggest that regulatory policy makers must consider the global ramifications of domestic regulatory changes, as enhanced disclosure requirements in one jurisdiction can create unintended consequences for firms and investors worldwide. Our evidence that Italy's MiFID implementation reduced U.S. voluntary disclosure challenges the conventional wisdom that regulatory enhancements universally improve market transparency, instead highlighting the complex strategic responses that arise in interconnected global markets. For practitioners and regulators, these findings emphasize the importance of coordinating international regulatory efforts and considering cross-border reputation effects when designing securities regulations. The reputation risk channel we identify provides a new lens for understanding how multinational corporations manage their global disclosure strategies in response to evolving regulatory landscapes across different jurisdictions.

BACKGROUND AND HYPOTHESIS DEVELOPMENT

Background

The Markets in Financial Instruments Directive (MiFID) represents one of the most significant regulatory reforms in European securities markets, with Italy implementing these requirements in 2007 through the Commissione Nazionale per le Società e la Borsa (CONSOB). MiFID fundamentally transformed the regulatory landscape by establishing comprehensive investor protection standards, enhancing market transparency requirements, and strengthening conduct-of-business rules across member states (Ferrarini and Moloney, 2012; Avgouleas, 2009). The directive's implementation in Italy affected all investment firms, credit institutions providing investment services, and regulated markets, requiring them to adopt enhanced disclosure practices, improve client categorization procedures, and implement

robust best execution policies (Casey and Lannoo, 2009).

The effective date of November 1, 2007, marked a watershed moment for Italian securities regulation, as CONSOB integrated MiFID's provisions into domestic law through comprehensive amendments to existing regulatory frameworks. The implementation process required affected firms to overhaul their operational procedures, enhance their risk management systems, and adopt more stringent transparency standards in their dealings with both retail and institutional investors (Moloney, 2008; Ferrarini and Recine, 2006). These changes were instituted primarily to address market fragmentation concerns, improve investor confidence following various market scandals, and harmonize regulatory standards across European Union member states to facilitate cross-border investment activities.

Italy's MiFID implementation occurred contemporaneously with similar regulatory adoptions across all EU member states, creating a coordinated regulatory shock that enhanced the directive's credibility and enforcement effectiveness. This synchronized implementation was accompanied by other significant regulatory developments, including the implementation of the Transparency Directive and ongoing preparations for Solvency II in insurance markets, creating a comprehensive regulatory reform environment (Enriques and Volpin, 2007; Ferran, 2004). The coordinated nature of these reforms amplified their impact on global financial markets, as multinational firms faced increased regulatory scrutiny and reputational pressures across multiple jurisdictions simultaneously.

Theoretical Framework

The implementation of MiFID in Italy creates a natural setting to examine how foreign regulatory changes influence domestic voluntary disclosure decisions through reputation risk channels. Reputation risk theory suggests that firms face potential losses from stakeholder perceptions of their conduct, competence, or compliance with regulatory standards,

particularly when operating in interconnected global markets (Fombrun and Shanley, 1990; Karpoff et al., 2008). This theoretical framework posits that firms proactively manage their reputational capital by signaling their commitment to high-quality practices and regulatory compliance, even when not directly subject to specific regulatory requirements.

The core concept of reputation risk in financial markets centers on the notion that negative reputational events can impose significant economic costs through various channels, including reduced access to capital markets, higher borrowing costs, and decreased customer loyalty (Karpoff et al., 2008; Murphy et al., 2009). When regulatory changes in major financial markets like Italy signal heightened expectations for transparency and investor protection, firms operating globally may perceive increased reputational risks associated with maintaining lower disclosure standards. This perception creates incentives for voluntary disclosure improvements as firms seek to demonstrate their alignment with evolving global best practices and mitigate potential reputational damage from being perceived as less transparent than their peers (Graham et al., 2005).

The connection between foreign regulatory changes and domestic voluntary disclosure decisions operates through reputational spillover effects, where firms anticipate that stakeholders will benchmark their practices against international standards regardless of legal requirements. U.S. firms with international operations, cross-border financing activities, or global investor bases may be particularly sensitive to reputational risks arising from perceived gaps between their disclosure practices and those mandated in other major markets (Doidge et al., 2004; Karolyi, 2012).

Hypothesis Development

The economic mechanism linking Italy's MiFID implementation to U.S. voluntary disclosure operates through reputation risk channels that reflect the interconnected nature of

global financial markets. When Italy adopted enhanced transparency and investor protection standards in 2007, U.S. firms faced increased reputational pressure to demonstrate comparable commitment to disclosure quality and investor protection, particularly given the prominence of Italian financial markets and the coordinated nature of MiFID implementation across Europe (Coffee, 2007; Admati and Pfleiderer, 2000). This reputational pressure stems from stakeholders' tendency to benchmark firm practices against international standards, creating implicit expectations for disclosure quality that transcend formal regulatory requirements. U.S. firms operating in global markets or seeking to attract international investors may perceive that maintaining disclosure practices below newly established European standards could signal lower commitment to transparency and investor protection, potentially damaging their reputational capital.

The theoretical framework of reputation risk suggests that firms proactively invest in disclosure quality to maintain their reputational assets and avoid negative stakeholder perceptions (Milgrom and Roberts, 1986; Dye, 1985). Italy's MiFID implementation created a reputational benchmark effect, where the enhanced standards became reference points for evaluating firm quality and governance practices globally. U.S. firms may have responded to this reputational pressure by increasing their voluntary disclosure to signal alignment with evolving international best practices and differentiate themselves from firms perceived as maintaining lower transparency standards (Verrecchia, 2001; Healy and Palepu, 2001). The reputation risk channel is particularly relevant for firms with international exposure, as these companies face greater scrutiny from global stakeholders who may compare their practices to international standards and penalize perceived deficiencies through reduced investment, higher cost of capital, or decreased business relationships.

Prior literature provides consistent theoretical predictions supporting a positive relationship between foreign regulatory enhancements and domestic voluntary disclosure

through reputation risk channels. Studies examining regulatory spillover effects demonstrate that firms often adopt practices exceeding local requirements when international standards create reputational benchmarks (Christensen et al., 2013; Leuz, 2010). The signaling literature further supports this prediction, suggesting that firms use voluntary disclosure to communicate their quality and commitment to stakeholder protection when reputational stakes are high (Spence, 1973; Ross, 1977). While some theoretical perspectives suggest that voluntary disclosure may decrease when regulatory uncertainty increases, the coordinated and well-publicized nature of MiFID implementation likely reduced such uncertainty effects and strengthened the reputational signaling incentives. The combination of clear international standards, significant media attention, and the involvement of major European markets created strong reputational incentives for U.S. firms to enhance their voluntary disclosure practices.

H1: U.S. firms increase voluntary disclosure following Italy's implementation of MiFID in 2007 due to heightened reputation risk concerns arising from enhanced international transparency standards.

RESEARCH DESIGN

Sample Selection and Regulatory Context

Our sample comprises all firms in the Compustat universe during the period surrounding Italy's implementation of the Markets in Financial Instruments Directive (MiFID) in 2007. The Commissione Nazionale per le Società e la Borsa (CONSOB), Italy's securities market regulator, implemented MiFID requirements to enhance investor protection, improve market transparency, and strengthen conduct rules in Italian securities regulation. While MiFID Italy directly targets specific financial market participants and investment services, our analysis examines all U.S. firms in the Compustat universe to capture potential spillover effects through global capital markets and risk transmission channels (Leuz and Wysocki,

2016; Christensen et al., 2013). The treatment variable affects all firms in our sample, as we employ a pre-post research design that compares voluntary disclosure patterns before and after the regulatory implementation.

Model Specification

We employ an ordinary least squares regression model to examine the relationship between Italy's MiFID implementation and voluntary disclosure in the U.S. through the risk channel. Our empirical model follows established frameworks in the voluntary disclosure literature (Beyer et al., 2010; Healy and Palepu, 2001) and examines how regulatory changes in foreign markets influence domestic firms' disclosure incentives through risk-based mechanisms. The model incorporates control variables that prior research has identified as key determinants of voluntary disclosure decisions, including firm characteristics, performance metrics, and information environment factors.

Our specification addresses potential endogeneity concerns through the use of an exogenous regulatory shock that is unlikely to be correlated with unobservable firm characteristics affecting disclosure decisions (Leuz and Wysocki, 2016). The timing of MiFID implementation in Italy provides a plausibly exogenous source of variation that allows us to identify causal effects on U.S. firms' voluntary disclosure behavior. We include firm-level controls to mitigate concerns about omitted variable bias and ensure that our treatment effect captures the impact of the regulatory change rather than other concurrent factors (Christensen et al., 2013; Li and Zhang, 2015).

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-MiFID 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 through their earnings guidance activities (Hirst et al., 2008). This measure reflects managers' willingness to provide forward-looking information to capital markets and serves as a comprehensive proxy for voluntary disclosure intensity. The Treatment Effect variable is an indicator variable equal to one for the post-MiFID Italy period from 2007 onwards, and zero otherwise, capturing the effect of the regulatory implementation on all firms in our sample.

Our control variables follow established literature examining determinants of voluntary disclosure (Ajinkya et al., 2005). Institutional ownership (linstown) captures the monitoring role of institutional investors and their demand for information, with higher institutional ownership expected to increase disclosure frequency. Firm size (lsize) controls for the economies of scale in information production and greater analyst following of larger firms. Book-to-market ratio (lbtm) proxies for growth opportunities and information asymmetry, with higher ratios potentially associated with different disclosure incentives. Return on assets (lroa) measures firm performance and profitability, as managers of better-performing firms may have stronger incentives to communicate performance to markets.

Stock return (lsaret12) captures recent firm performance and market reactions that may influence disclosure decisions. Earnings volatility (levol) measures the uncertainty in firm performance and relates directly to our risk channel, as firms with higher earnings volatility face greater information asymmetry and may adjust disclosure in response to regulatory

changes affecting risk assessment. Loss indicator (lloss) identifies firms reporting losses, as these firms face different disclosure incentives and litigation risks. Class action litigation risk (lcalrisk) captures legal exposure that may influence disclosure decisions, particularly relevant given the risk-based theoretical channel we examine. We also include a time trend to control for secular changes in disclosure practices over our sample period.

Sample Construction

Our sample construction centers on a five-year event window surrounding Italy's MiFID implementation in 2007, spanning two years before and two years after the regulatory change, with the post-regulation period beginning from 2007 onwards. We obtain financial statement data from Compustat, analyst forecast data from I/B/E/S, audit-related information from Audit Analytics, and stock return data from CRSP to construct our comprehensive dataset. This multi-database approach ensures we capture all relevant firm characteristics and disclosure measures necessary for our analysis (Christensen et al., 2013).

The sample construction process yields 18,045 firm-year observations after applying standard data availability requirements and eliminating observations with missing values for key variables. Our treatment group consists of all firms in the post-MiFID period (2007 onwards), while the control group comprises the same firms in the pre-regulation period (2005-2006). This within-firm comparison helps control for time-invariant firm characteristics that might influence disclosure decisions. We apply standard sample restrictions including the elimination of financial firms due to different regulatory environments and the requirement of sufficient data availability across our key databases to ensure reliable estimation of our regression models (Ball et al., 2012; Leuz and Wysocki, 2016).

DESCRIPTIVE STATISTICS

Sample Description and Descriptive Statistics

Our sample comprises 18,045 firm-year observations representing 4,856 unique U.S. firms over the period 2005 to 2009. This timeframe captures the critical period surrounding the global financial crisis and provides sufficient pre- and post-treatment observations for our empirical analysis.

We observe substantial variation in firm characteristics across our sample. Institutional ownership (linstown) exhibits a mean of 0.546 with considerable dispersion (standard deviation = 0.321), ranging from near-zero to 1.110, indicating that some firms experience institutional ownership exceeding 100% due to overlapping reporting requirements. Firm size (lsize) displays a mean of 5.976, consistent with our sample including firms across the size spectrum from small-cap to large-cap entities. The interquartile range spans from 4.519 to 7.319, suggesting adequate representation across size quintiles.

Financial performance metrics reveal the challenging economic environment during our sample period. Return on assets (lroa) exhibits a slightly negative mean of -0.038, reflecting the adverse impact of the financial crisis on corporate profitability. However, the median ROA of 0.025 suggests that the negative mean is driven by firms experiencing severe losses, as evidenced by the minimum value of -1.542. Stock returns (lsaret12) similarly show a negative mean of -0.015 with substantial volatility (standard deviation = 0.461), consistent with the turbulent market conditions during this period.

The loss indicator (lloss) reveals that 30.2% of firm-year observations report negative earnings, substantially higher than typical pre-crisis benchmarks of approximately 20-25% reported in prior literature. This elevated loss frequency underscores the financial distress prevalent during our sample period. Earnings volatility (levol) displays considerable right-skewness, with a mean of 0.151 significantly exceeding the median of 0.055, indicating that a subset of firms experiences exceptionally high earnings volatility.

Our treatment variables show that 58.2% of observations fall in the post-law period (post_law), providing balanced pre- and post-treatment periods for identification. The management forecast frequency (freqMF) exhibits substantial variation, with a mean of 0.644 and standard deviation of 0.910, suggesting heterogeneous voluntary disclosure practices across firms.

Book-to-market ratios (lbtm) and calculated risk measures (lcalrisk) display distributions consistent with prior literature, though the crisis period may have elevated risk measures relative to normal economic conditions. The comprehensive coverage across industries and firm characteristics enhances the generalizability of our findings to the broader population of U.S. public companies.

RESULTS

Regression Analysis

We examine the association between Italy's MiFID implementation in 2007 and U.S. firms' voluntary disclosure using a difference-in-differences research design. Our results consistently show a negative treatment effect across all three model specifications, contradicting our hypothesis that U.S. firms would increase voluntary disclosure following Italy's enhanced transparency standards. In our most restrictive specification with firm fixed effects (Specification 3), we find that Italy's MiFID implementation associates with a 4.55 percentage point decrease in U.S. voluntary disclosure. This finding suggests that rather than responding to reputational pressure through increased disclosure, U.S. firms actually reduced their voluntary disclosure following the Italian regulatory change. The negative coefficient indicates that our theoretical framework regarding reputation risk channels and international benchmarking effects does not hold empirically, at least in the context of Italy's MiFID adoption.

The treatment effect demonstrates strong statistical significance across all specifications, with t-statistics ranging from -3.77 to -7.72 and p-values below 0.001, providing robust evidence against our hypothesis. The economic magnitude of the effect varies across specifications but remains substantial, ranging from 4.55 to 7.97 percentage points. The inclusion of firm fixed effects in Specification 3 reduces the treatment effect magnitude to -0.0455, suggesting that time-invariant firm characteristics partially explain the observed association. The dramatic improvement in model fit from an R-squared of 0.0019 in Specification 1 to 0.8531 in Specification 3 demonstrates the importance of controlling for firm heterogeneity and other determinants of voluntary disclosure. The consistency of the negative treatment effect across specifications strengthens our confidence that the relationship is not driven by model specification choices or omitted variable bias.

Our control variables exhibit patterns largely consistent with prior voluntary disclosure literature, though some relationships change when we include firm fixed effects. Firm size (lsize) consistently shows a positive association with voluntary disclosure across all specifications, supporting the established finding that larger firms provide more voluntary disclosure due to lower proprietary costs and greater analyst following. The loss indicator (lloss) demonstrates a consistently negative relationship, consistent with managers' incentives to reduce disclosure when performance is poor. Interestingly, institutional ownership (linstown) shows a strong positive association in Specification 2 but becomes insignificant when firm fixed effects are included, suggesting that the cross-sectional relationship between institutional ownership and disclosure does not hold within firms over time. Stock return volatility (levol) exhibits a sign reversal from positive in Specification 2 to negative in Specification 3, indicating that the cross-sectional and time-series relationships between uncertainty and voluntary disclosure differ. These control variable patterns provide confidence in our model specification while highlighting the importance of firm fixed effects in voluntary disclosure research. Contrary to our hypothesis, the results do not support the prediction that

U.S. firms increase voluntary disclosure following Italy's MiFID implementation due to reputation risk concerns. The consistent negative treatment effects across specifications suggest that alternative mechanisms may explain the relationship between foreign regulatory changes and domestic voluntary disclosure, potentially including competitive effects, regulatory substitution, or market attention shifts that reduce rather than increase disclosure incentives.

CONCLUSION

We examine whether the implementation of the Markets in Financial Instruments Directive (MiFID) in Italy in 2007 influenced voluntary disclosure practices of U.S. firms through the risk channel. Our research question centers on understanding how enhanced investor protection and market transparency requirements in a major European market create spillover effects that alter the risk-disclosure calculus for U.S. firms with international exposure. We hypothesize that MiFID's strengthened conduct rules and transparency requirements reduce information asymmetries in European markets, thereby influencing the risk-return tradeoffs that U.S. managers face when making voluntary disclosure decisions.

Our empirical analysis reveals consistent evidence of a negative treatment effect across all specifications, indicating that U.S. firms reduced their voluntary disclosure following MiFID implementation in Italy. The treatment effect ranges from -0.0455 to -0.0797 across our three specifications, with all coefficients statistically significant at the 1% level (t-statistics ranging from 3.77 to 7.72). The economic magnitude of these effects is substantial, representing approximately a 4.6% to 8.0% reduction in voluntary disclosure relative to the sample mean. The robustness of our findings across specifications with varying control structures—from a parsimonious model with minimal controls ($R^2 = 0.0019$) to a comprehensive specification with firm fixed effects ($R^2 = 0.8531$)—strengthens our confidence in the results. We interpret these findings as evidence that MiFID's risk-reducing mechanisms

in European markets created competitive pressures that led U.S. firms to strategically reduce voluntary disclosure, potentially to maintain informational advantages or reduce proprietary costs in an environment of enhanced regulatory scrutiny.

Our findings carry important implications for multiple stakeholders in financial markets. For regulators, our results demonstrate that major regulatory reforms create significant cross-border spillover effects that extend beyond their intended jurisdictions. The negative disclosure response we document suggests that while MiFID successfully enhanced transparency in European markets, it may have inadvertently created incentives for non-European firms to reduce voluntary information provision. This finding aligns with theoretical predictions in Verrecchia (2001) and empirical evidence in Shroff et al. (2013) regarding the strategic nature of disclosure decisions in competitive environments. Regulators should consider these international spillover effects when designing future reforms and potentially coordinate with foreign regulators to minimize unintended consequences.

For corporate managers, our findings highlight the importance of considering international regulatory developments in disclosure strategy formulation. The significant negative treatment effects we document suggest that managers actively adjust their disclosure policies in response to foreign regulatory changes that alter competitive dynamics through risk channels. This strategic behavior is consistent with proprietary cost theories of disclosure (Verrecchia, 1983) and suggests that managers view voluntary disclosure as a strategic tool that must be calibrated to changing international competitive landscapes. For investors, our results indicate that regulatory reforms in major international markets can have material effects on information availability from firms with global operations, potentially affecting investment decision-making and portfolio risk assessment.

Our study has several limitations that suggest caution in interpreting the results and point toward promising avenues for future research. First, while we establish a strong

association between MiFID implementation and changes in U.S. voluntary disclosure, our research design cannot definitively establish causation due to potential confounding factors affecting both European regulatory developments and U.S. disclosure practices during our sample period. Second, our focus on the risk channel, while theoretically motivated, represents only one potential mechanism through which MiFID might influence disclosure decisions. Future research could explore alternative channels such as cost of capital effects, analyst following changes, or institutional investor behavior modifications. Third, our analysis focuses specifically on MiFID implementation in Italy, and the generalizability of our findings to other European markets or regulatory reforms remains an open empirical question.

Future research could extend our findings in several meaningful directions. First, researchers could examine whether similar spillover effects occur following other major international regulatory reforms, such as the implementation of IFRS or Basel III requirements, to assess the generalizability of cross-border regulatory spillovers through risk channels. Second, future studies could investigate the heterogeneity of treatment effects across different types of voluntary disclosure (forward-looking versus historical, quantitative versus qualitative) to better understand which specific disclosure categories are most sensitive to international regulatory changes. Third, researchers could examine whether the disclosure effects we document persist over longer time horizons or represent temporary adjustments to new regulatory equilibria. Finally, future work could explore whether firms with different levels of international exposure, institutional ownership structures, or risk profiles respond differently to foreign regulatory changes, providing insights into the firm-specific factors that moderate cross-border regulatory spillover effects through risk channels. Such research would contribute to our understanding of how increasingly integrated global financial markets transmit regulatory effects across jurisdictions and inform both regulatory design and corporate disclosure strategy in an interconnected world.

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Table 1

Descriptive Statistics

Variables	N	Mean	Std. Dev.	P25	Median	P75
FreqMF	18,045	0.6445	0.9100	0.0000	0.0000	1.6094
Treatment Effect	18,045	0.5823	0.4932	0.0000	1.0000	1.0000
Institutional ownership	18,045	0.5465	0.3208	0.2574	0.5809	0.8228
Firm size	18,045	5.9763	2.0179	4.5194	5.9058	7.3195
Book-to-market	18,045	0.5791	0.5635	0.2750	0.4769	0.7395
ROA	18,045	-0.0382	0.2507	-0.0220	0.0248	0.0702
Stock return	18,045	-0.0145	0.4614	-0.2780	-0.0879	0.1438
Earnings volatility	18,045	0.1509	0.2914	0.0227	0.0552	0.1498
Loss	18,045	0.3024	0.4593	0.0000	0.0000	1.0000
Class action litigation risk	18,045	0.2560	0.2575	0.0701	0.1561	0.3481
Time Trend	18,045	1.9447	1.4164	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
Markets in Financial Instruments Directive Italy 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**	**0.12**	-0.01	**0.16**	**-0.05**	**-0.03**	0.01	**0.06**	**-0.15**
FreqMF	**-0.04**	1.00	**0.44**	**0.44**	**-0.13**	**0.23**	**-0.02**	**-0.14**	**-0.26**	0.00
Institutional ownership	**0.12**	**0.44**	1.00	**0.63**	**-0.07**	**0.26**	**-0.13**	**-0.20**	**-0.20**	0.01
Firm size	-0.01	**0.44**	**0.63**	1.00	**-0.30**	**0.35**	**0.02**	**-0.25**	**-0.38**	**0.07**
Book-to-market	**0.16**	**-0.13**	**-0.07**	**-0.30**	1.00	**0.03**	**-0.21**	**-0.12**	**0.12**	**-0.14**
ROA	**-0.05**	**0.23**	**0.26**	**0.35**	**0.03**	1.00	**0.19**	**-0.52**	**-0.62**	**-0.15**
Stock return	**-0.03**	**-0.02**	**-0.13**	**0.02**	**-0.21**	**0.19**	1.00	**-0.04**	**-0.20**	**-0.06**
Earnings volatility	0.01	**-0.14**	**-0.20**	**-0.25**	**-0.12**	**-0.52**	**-0.04**	1.00	**0.36**	**0.23**
Loss	**0.06**	**-0.26**	**-0.20**	**-0.38**	**0.12**	**-0.62**	**-0.20**	**0.36**	1.00	**0.18**
Class action litigation risk	**-0.15**	0.00	0.01	**0.07**	**-0.14**	**-0.15**	**-0.06**	**0.23**	**0.18**	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 Markets in Financial Instruments Directive Italy on Management Forecast Frequency

	(1)	(2)	(3)
Treatment Effect	-0.0797*** (7.72)	-0.0634*** (4.89)	-0.0455*** (3.77)
Institutional ownership		0.8019*** (17.37)	-0.0587 (0.93)
Firm size		0.0948*** (10.65)	0.1356*** (10.91)
Book-to-market		-0.0328** (2.29)	-0.0204 (1.51)
ROA		0.1178*** (3.68)	0.0275 (0.97)
Stock return		-0.0423*** (3.47)	-0.0376*** (4.06)
Earnings volatility		0.0816*** (2.66)	-0.1197*** (3.19)
Loss		-0.2137*** (10.74)	-0.1197*** (8.31)
Class action litigation risk		-0.0311 (1.04)	-0.0227 (1.16)
Time Trend		-0.0227*** (3.86)	-0.0016 (0.28)
Firm fixed effects	No	No	Yes
N	18,045	18,045	18,045
R^2	0.0019	0.2547	0.8531

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