

**Charles University**

Faculty of Social Sciences  
Institute of Economic Studies



MASTER'S THESIS

**The Impact of Macroprudential Policy  
Announcements on Financial Markets**

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## Declaration of Authorship

The author hereby declares that he compiled this thesis independently; using only the listed resources and literature, and the thesis has not been used to obtain a different or the same degree.

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During the preparation of this thesis, the author used FACTIVE and EIKON databases in order to collect all necessary data for the analysis. After using this tool, the author reviewed and edited the content as necessary and takes full responsibility for the content of the publication.

Prague, April 30, 2024

Zhanara Zeinesheva

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## Abstract

I examine the impact of macroprudential policy announcements on financial markets in Europe from 2001 to 2023, analyzing data on government bond yields, stock prices, and market volatility across several European countries and the UK. Constructing a unique dataset from the FACTIVA database, I assess the immediate and delayed effects of these announcements during various crisis periods, offering insights into the varying responses of financial markets to policy communications. I uncover that macroprudential policy announcements significantly increase changes in 10-year Government bond yields starting two days after their release and affect changes in stock prices only by the fifth day, without influencing market volatility. Tightening measures raise changes in bond yields on the second and fourth days, while loosening measures begin affecting changes in yields from the third day, yet neither impacts stock prices or market volatility. Additionally, I found macroeconomic conditions like Euribor rates, exchange rates, and S&P 500 movements significantly influence market dynamics. Changes in Euribor positively affect changes in bond yields during short-term event windows following an announcement, whereas increases in the S&P 500 changes correlate with reduced market volatility and an increase in stock price changes. Similarly, I observe an immediate and delayed positive effect of changes in the exchange rate on changes in stock prices.

<b>JEL Classification</b>	E58, G18, F37
<b>Keywords</b>	macroprudential announcements, bond yields, stock prices, volatility
<b>Title</b>	The Impact of Macroprudential Policy Announcements on Financial Markets

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# Acronyms

<b>ADF</b>	Augmented Dickey-Fuller
<b>ARMA</b>	Autoregressive Moving Average
<b>BoE</b>	Bank of England
<b>CAPM</b>	Capital Asset Pricing Model
<b>CAR</b>	Cumulative Abnormal Returns
<b>CDS</b>	Credit Default Swap
<b>CH</b>	Switzerland
<b>CISS</b>	Composite Indicator of Systemic Stress
<b>CPI</b>	Consumer Price Index
<b>CRSP</b>	Center for Research in Security Prices
<b>CZ</b>	Czech Republic
<b>DE</b>	Germany
<b>DK</b>	Denmark
<b>ECB</b>	European Central Bank
<b>EBA</b>	European Banking Authority
<b>EMV</b>	Equity Market Volatility
<b>ES</b>	Spain
<b>EU</b>	European Union
<b>EURO STOXX</b>	European Index
<b>FFTR</b>	Federal Funds target rate
<b>FFR</b>	Federal Funds Rate
<b>FOMC</b>	Federal Open Market Committee
<b>FR</b>	France
<b>GARCH</b>	Generalized Autoregressive Conditional Heteroskedasticity
<b>GFC</b>	Global Financial Crisis
<b>GR</b>	Greece
<b>IE</b>	Ireland
<b>IMF</b>	International Monetary Fund
<b>IT</b>	Italy
<b>IWLS</b>	Iterative Weighted Least Squares
<b>JD</b>	Jump-Diffusion
<b>KLCI</b>	Kuala Lumpur Composite Index
<b>MaPPED</b>	Macroprudential Policies Evaluation Database
<b>MES</b>	Marginal Expected Shortfall
<b>NFP</b>	Nonfarm Payrolls
<b>NL</b>	Netherlands
<b>NO</b>	Norway
<b>OLS</b>	Ordinary Least Squares
<b>PT</b>	Portugal
<b>REER</b>	Real Effective Exchange Rate
<b>RGDP</b>	Real Gross Domestic Product
<b>RV</b>	Realized Volatility
<b>S&amp;P 500</b>	Standard & Poor's 500 index
<b>SCAP</b>	Supervisory Capital Assessment Program
<b>SE</b>	Sweden
<b>SIFIs</b>	Systemically Important Financial Institutions

<b>SNB</b>	Swiss National Bank
<b>VIF</b>	Variance Inflation Factor
<b>VIX</b>	Volatility Indices
<b>VIXUK</b>	FTSE100 Implied Volatility Index
<b>VSTOXX</b>	Implied Volatility Index

# Master's Thesis Proposal

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<b>Defense Planned:</b>	June 2024

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## **Proposed Topic:**

The impact of macroprudential policy announcements on financial markets

## **Motivation:**

Studying the effects of policy announcements on financial markets brings valuable insights into market dynamics, investors' behavior, and the effectiveness of policy communication. By examining how the markets respond to macroprudential policy announcements, the extent to which market participants believe that these measures successfully achieve their intended goals of reducing systemic risks and fostering financial stability can be evaluated. A deeper understanding of how financial markets react to policy information allows to uncover complex mechanism of the market, such as price adjustments, volatility patterns, and trading behavior, thereby enhancing our knowledge of market efficiency and functionality. Additionally, by evaluating the credibility and effectiveness of policy communication, policymakers can refine their approaches and bolster market confidence. Ultimately, such research contributes to a broader comprehension of financial stability policies and their communication, facilitates the development of robust policy frameworks, and aids informed decision-making among policymakers and regulators. While there is a bunch of studies that focus on the market reactions to monetary policy or fiscal policy announcements (monetary policy announcements: Smales L.A. and Apergis N. (2017), Hussain S.M. (2011), fiscal policy announcements: Baker et al. (2019), Lee et al. (2022), Geršl et al. (2022), stress tests announcements: Alves et al. (2015), Sahin et al. (2020)), there are almost no studies that would focus on the impact of macroprudential policy communication. Nevertheless, there is a thorough examination of macroprudential policy tools and their impact (Biljanovska N. et al. (2023)). The only available study in this area is Bluwstein and Patozi (2022), who aim to determine whether the macroprudential policy announcements, particularly those that are unexpected by the financial markets, have a significant effect on reducing systemic risk in the equity and bond markets in the UK. The literature in this area also includes studies that focus on macroeconomic news in general (i.e. not necessarily only policy news) and their impact on the markets. For example, the impact of such news on volatility jumps was analyzed by Chan and Gray (2018). The authors demonstrated the channels through which economic news influences volatility jumps considering the impact of news surprise on jump size. The impact of macroeconomic announcements on the dynamics of financial markets, specifically stocks, exchange rates, Treasury and corporate bonds, and the relationship between unexpected changes in macroeconomic fundamentals and the pricing of major asset classes in the United Kingdom were also studied by Heinlein and Lepori (2021). Thus, to contribute to the literature on market reactions to policy news, this diploma thesis will specifically focuses on investigating the impact of news related to macroprudential policy on financial markets in a broader set of European countries.

Furthermore, I will examine whether the market impact of macroprudential policy news will be different depending on the content of policy news announced.

### **Hypotheses:**

1. Hypothesis #1: The announcement of macroprudential policy measures increase government bonds spreads and decrease stock prices.
2. Hypothesis #2: The magnitude of the market impact of macroprudential policy news vary depending on the specific policy measures announced.
3. Hypothesis #3: The market impact of macroprudential policy news on financial stability indicators are influenced by overall economic conditions.

### **Methodology:**

The first step of the analysis is the review of available studies on the impact of macroeconomic policy announcements on financial markets. I will examine all studies where the relationship between macroeconomic policy news and financial markets were studied. In the second step, I will perform a search in the Factiva database and Reuters for news related to macroprudential policy, focusing on EU markets. I will broadly follow the approach applied in Baxa, Gersl and Sveda (2022) in terms of the identification of news and their coding, but I will use in my methodology as regards country-specific market variables for both the dependent and explanatory variables (e.g. stock market index and its changes, subindex of stocks composed of banks, selected bank stock prices, country spreads, or bank bond spreads) and look at the impact of the macroprudential policy announcements on financial markets. I will employ an event study methodology, which focuses on analyzing the effects of specific events (in this case, macroprudential policy announcements) on financial markets. The design of the event study involves defining the event window, which is the period of time around the announcement that is considered relevant for capturing market reactions. I will examine the market impact of macroprudential policy announcements by assessing various financial market variables, and conduct a regression analysis, time series analysis, asymmetry tests and also attempt to use a local projection method. To account for other factors that may influence financial market outcomes, the analysis may incorporate control variables. These variables could include macroeconomic indicators, market sentiment measures, or other relevant factors that could influence the relationship between policy announcements and market reactions. I will also conduct sensitivity analyses and robustness checks to ensure the robustness of the results. This may involve testing different event window specifications, alternative control variables, or conducting sub-sample analyses. As a final step I will interpret the results and draw conclusions regarding the impact of macroprudential policy announcements on financial markets. I will examine three hypothesis in conjunction with the empirical analysis and get a comprehensive understanding of the impact of macroprudential policy announcements on financial markets. The findings will contribute to the existing literature, enhance understanding of policy effectiveness, and provide valuable insights for policymakers and regulators in designing and implementing macroprudential measures to promote financial stability.

### **Expected Contribution:**

This will be the first study on a broader set of European countries in which the impact of macroprudential policy news on Financial markets will be investigated. I will take into account existing methodologies from previous studies on macroeconomic policy

communication and adjust it using country-specific market. The practical implications of this analysis can support evidence-based decision-making, enhance policy effectiveness, and promote a more stable and resilient financial system.

### **Outline:**

1. Introduction (motivation, main research questions)
2. Review of literature (studies on macroprudential policy and on the impact of macroeconomic policy announcements on financial markets).
3. Data (selection and coding of news based on Reuters, extracted from Factiva; financial markets data)
4. Methods (description of event study method and the local projection method, estimating the models for a selected set of "lags", asymmetry tests and different variations of autoregressive models).
5. Results (discussion of the regression results and additional robustness checks).
6. Concluding remarks (summary of my findings and their implications for future research).

### **Core Bibliography:**

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# 1. Introduction

Studying the impact of policy announcements on financial markets can forecast the dynamics of the market, bring insights into investor behavior, and estimate the potency of policy communication. Analyzing market response to macroprudential policy announcements enables an assessment of the degree to which market participants believe these measures effectively achieve their goals of reducing systemic risks and promoting financial stability.

I expand on new data and evidence that shed light on the effectiveness of macroprudential policy announcements and reaction of financial market in European countries and the UK over the period from 2000 to 2023. The sample contains European countries with advanced economies including Scandinavian countries (France, Sweden, and Germany), Southern European countries that faced economic challenges (Greece, Ireland, and Spain), new EU member, Czech Republic, and non-EU member, the UK. All selected countries have implemented measures related to macroprudential policy, albeit the purpose of implementation may vary. European countries with advanced economies implement measures to enhance financial stability, while Southern European countries implement measures in response to challenges presented by the European sovereign debt crisis. To conduct the analysis of the announcements effect I build up a distinct news dataset from FACTIVE database, containing macroprudential policy and financial stability communication and investigate the impact on financial markets. I aim to estimate whether such announcements affect changes in government bond yields and stock prices. Additionally, I aim to examine the extent to which the effects on financial markets vary with different types of announcements, and if financial markets are affected by other economic conditions.

This is the first complex study on a broader set of European countries in which the impact of macroprudential policy and financial stability news are investigated on financial markets. The only research in this area was done by Bluwstein and Patozi (2022), who looked into whether unexpected announcements about macroprudential policies have a significant impact on reducing systemic risks in the UK's stock and bond markets. I contribute to this literature through several important aspects. First, I investigate the effect on the whole European area and a sample of European countries and the UK. Second, I take the broader time period for the analysis, which can help in understanding macroprudential policy and financial stability communications and the market reactions during several crisis periods. Third, I constructed a unique news

dataset following Bluwstein and Patozi (2022) and Švéda et al. (2022), however, I reduced the keywords selection to reduce the selection bias and avoid a judgement collecting only specific news. Finally, I study the effect of announcements on Government bond yields, stock prices and volatility. Additionally, I investigate whether the market reaction varies depending on the specific announcement communicated and whether there are other economic conditions that impact the financial market.

The results uncover a number of important observations. The announcements lead to an increase in 10-year government bond yields changes starting two days after their release, with this rise continuing through the fourth and fifth days, though, there are no notable effects on changes in bond yields immediately on other event windows. The impact of these announcements on changes in stock prices is also significant but only becomes observable on the fifth day. I assume there is no immediate market reaction due to the time needed for investors to reconsider risk levels and financial measures that could indirectly influence economic growth. Furthermore, these announcements do not influence market volatility, suggesting that they are perceived as stabilizing measures rather than factors contributing to market instability.

The analysis of announcements' direction towards tightening or loosening stance reveals that tightening announcements lead to significant increases in changes in bond yields on the second and fourth days after being communicated, while loosening announcements start impacting changes in bond yields positively from the third day onward. However, neither tightening nor loosening announcements have any effect on stock prices or market volatility. This highlights bond markets react quickly to changes in expected interest rates, which are often influenced by macroprudential policies aimed at keeping financial stability. In contrast, stock markets tend to respond to more comprehensive economic indicators that are not directly affected by such policy changes. The lack of impact on market volatility suggests that such announcements are viewed as not disturbing for market operations, implying financial stability.

Country-specific results indicate mixed responses across different financial metrics and regions. For instance, in Spain and France, macroprudential policy announcements immediately increase changes in bond yields, highlighting the sensitivity of their markets. Furthermore, Spain and Ireland face delayed increases in changes in bond yields, while other countries do not show similar effects. In terms of changes in stock prices, Sweden experiences an immediate decline, while Germany and France experience decreases, and Greece faces increases over time. The results



confirm varied responses of financial markets to macroprudential policies, influenced by regional dynamics and economic conditions.

The study also observes announcements in France tend to decrease changes in European bond yields, while announcements in Greece and Ireland tend to increase them. The German announcements have a delayed effect and lead to a decrease. With respect to changes in European stock prices, Irish announcements lower changes in European stock prices, whereas Swedish announcements increase them. Furthermore, announcements from France and Ireland lead to an increase in overall market volatility in Europe.

Additionally, the study sheds light on the effect of other economic conditions like Euribor rates, exchange rate, and S&P 500 on financial markets. There are significant impacts of these economic variables on financial markets, varying by country and economic condition, with immediate effects often differing from longer-term impacts. The results uncover that changes in the Euribor positively affect changes in bond yields shortly after an announcement, particularly within the first three days, with effects continuing to the fifth day. The Euribor does not impact market volatility. However, the European market volatility seems to respond inversely to the S&P 500 as it's observed that volatility reduces as the S&P 500 rises, while changes in stock prices boost across all observed windows. The same effect is observed by exchange rate changes, which positively affect changes in stock prices across all event windows. Country-specific analyses show varied impacts of these economic variables. Specifically, changes in Euribor have a mixed impact on changes in bond yields, reducing them in France, Greece, and Ireland, but boosting them in the UK and Czech Republic. Changes in the S&P 500 increase changes in stock prices in several countries including the Czech Republic, Germany, France, Greece, and Ireland, but adversely affect market volatility in Spain.

The paper proceeds as follows. In section 2 I discuss related literature. In section 3 I describe the data and the construction of the dataset, and the variables used. In section 4 I explain the methodology and in section 5 I provide empirical results. Section 6 concludes.

## 2. Review of related literature

Financial markets are driven by information. Analyzing how financial markets react to macroeconomic news enlightens how efficiently information is incorporated into asset prices. Macro news often provides new information about the overall economic health of a country or region. The market's reaction to this news assists to the process of price discovery, where adjustments to asset prices reflect the most current information available.

There is substantial empirical evidence that macroeconomic news reveals the link between news announcements and volatility. Chan and Gray (2018) hypothesize a dual-pathway model where economic announcements catalyze market volatility by directly being aligned with scheduled news events and by responding asymmetrically to news surprises. This latter observation suggests that bad economic news is more likely to cause increased market volatility than good news. However, this perspective is broadened by Heinlein and Lepori (2022), who examine the nuanced impacts of macroeconomic surprises on a spectrum of UK financial assets, including stocks, currencies, and bonds. Their findings introduce a distinct response pattern among asset categories, with positive economic news boosting the markets, which is not in agreement with Chan and Gray's (2018) claim regarding volatility spikes that are based mostly on bad news. Their analysis highlights the market's reactive nature, particularly to negative news, suggesting a risk aversion among investors. This is complemented by their statistical demonstration of the asymmetrical nature of market responses, a finding that significantly enriches the understanding of market sensitivity to news content. On the other hand, Heinlein and Lepori (2022) expand the discussion by highlighting how both positive and negative macroeconomic surprises can influence market dynamics, thus presenting a more comprehensive view of market reactivity to news. Their identification of specific market behaviors in response to economic pressures suggests a more complex market equilibrium process influenced by macroeconomic news.

Exploring the methodologies and datasets utilized by Chan and Gray (2018) and Heinlein R. and Lepori G. M. (2022) display distinct strategies in analyzing the market's reaction to macroeconomic announcements. Chan and Gray (2018) focus on a dataset ranging from January 4, 2000, to April 28, 2017, emphasizing futures data to determine market volatility within specific economic announcement windows. Their detailed attention to trading hours aims to capture immediate market fluctuations in response to Federal Open Market Committee (FOMC) announcements, such as

changes in the Federal Funds Rate (FFR), Nonfarm Payrolls (NFP), and unemployment rates, excluding public holidays to avoid non-representative data. This methodological choice highlights an intention to analyze closely short-term market dynamics. In contrast, Heinlein and Lepori (2022) extend their study period from 1997 to 2017, also sourcing data from Bloomberg and Datastream similar to Chan and Gray (2018) but enriching their analysis with daily closing prices of the S&P 500 index from the Center for Research in Security Prices (CRSP) database. Their use of regression analysis to assess the asset price response coefficients and the time-varying nature of these coefficients broadens the scope of their investigation. This approach allows them to explore how asset prices adjust over a more extended period following economic news, offering insights into the market's longer-term reactions rather than immediate volatility.

Chan and Gray (2018) employ a Jump-Diffusion (JD) model to explore how macroeconomic news announcements influence volatility flows across U.S. Treasury securities and the S&P500 index. Their analysis divides into two distinct JD model variations: JD0, which omits macroeconomic news, and JD1, which adjusts the volatility jumps' intensity and size based on such announcements. On the contrary, Heinlein R. and Lepori G. M. (2022) approach the concept of macroeconomic surprises by measuring the deviation of actual announcement values from their median forecasted values, adjusted by the standard deviation of these differences. Their methodology incorporates a wider selection of macroeconomic indicators, some of which overlap with those examined by Chan and Gray (2018). Particularly, Heinlein R. and Lepori G. M. (2022) describe for the timing of macroeconomic announcements within trading hours, suggesting that news released post-4:30 PM influences asset prices on the following day, which is different from Chan and Gray's focus on the immediate daily impact. This shift to investigating daily data, opposite to Chan and Gray's (2018) intraday perspective, marks a significant methodological difference. Heinlein and Lepori's (2022) preference for the iterative weighted least squares (IWLS) method over the ordinary least squares (OLS) for error term optimization, and their use of the GARCH model to derive estimators, illustrates their distinct analytical framework.

Chan and Gray (2018) reveal how the realized volatility (RV) of Treasury securities is directly impacted on the day of macroeconomic news releases. Their analysis discloses an evident impact of unemployment rate announcements on RV, unlike Nonfarm Payrolls (NFP) announcements, which appear to leave RV unaffected. Additionally, they observe that S&P500 RV does not escalate in response to Federal Funds Rate (FFR), NFP, and unemployment rate disclosures by the FOMC. Employing a Monte Carlo simulation to model the stochastic arrival of volatility jumps, they

conclude a consistent alignment of volatility rises with the communication of the Employment Situation Report, following broad simulations. Contrastingly, Heinlein R. and Lepori G. M. (2022) delve into the interplay between macroeconomic surprises and the monetary policy framework in the UK, highlighting how unexpected shifts in economic indicators, such as output and inflation, potentially provoke monetary policy adjustments by the Bank of England. Their hypothesis suggests that positive economic surprises are likely to strengthen companies' net cash flows, prompting a monetary tightening stance by the central bank. This concept extends to scenarios where inflation exceeds expectations, further triggering a contractionary monetary response.

In the analysis of how monetary policy announcements affect financial market operations, diverse opinions identified regarding the impact of these announcements on market liquidity and volatility. Smales L.A. and Apergis N. (2017) provide one angle, investigating liquidity fluctuations in financial markets following announcements by the FOMC, with a particular emphasis on the futures market for 10-year Treasury notes. They argue that the theme and tone of FOMC decisions and accompanying narratives significantly influence liquidity metrics in what is considered the most liquid bond futures market. On the other hand, Hussain S.M. (2011) presents a different perspective by studying the effects of monetary policy shifts on stock indices in key European countries and the US. Employing high-frequency intraday data, such as 5-minute price quotes, Hussain S.M. (2011) delivers a detailed examination of how markets respond to changes in policy. This approach is significantly different from that of Smales L.A. and Apergis N. (2017), who also analyze intraday data but broaden their scope to encompass 1-, 5-, and 30-minute intervals. The difference in the level of detail analyzed by these studies brings a significant discussion on the most effective observation frequency for accurately describing the market's adjustment to liquidity norms following an announcement.

By dividing a comprehensive dataset covering the period from May 1999 to December 16, 2015, Smales L.A. and Apergis N. (2017) categorize the effects of these announcements into surprise estimates and linguistic components, analyzing their subsequent impact on the Federal Funds target rate (FFTR). Their methodology accurately accounts for the nuanced ways in which the substance and presentation of FOMC declarations affect market liquidity, employing metrics such as the quoted bid-ask spread and total volume of contracts to estimate liquidity changes. This approach not only underscores the significance of announcement complexity and length but also highlights the critical trading window on the Chicago Mercantile Exchange, marking a focused attempt to translate the immediate effects of monetary policy on U.S. Treasury futures. On the contrary, Hussain S.M. (2011) extends the analysis to a broader geographical scope, encompassing monetary policy decisions from the European

Central Bank (ECB), Bank of England (BOE), Swiss National Bank (SNB), and FOMC over an 8-year period from 2000 to 2008. Hussain's S.M. (2011) study is distinguished by its use of high-frequency intraday data, including 5-minute price quotes, to examine the consequences of policy announcements on stock indices across major European economies and the US. This broader examination enables a detail analysis of market reactions to policy shifts within and beyond the U.S., factoring in the specific trading hours that define market responses in different regions. The author's comprehensive approach not only captures a wide array of monetary policy sources but also offers insight into the temporal dynamics of market adjustments following policy announcements.

While Smales L.A. and Apergis N. (2017) provide a chronological breakdown of liquidity's reaction to policy announcements, highlighting a nuanced interaction of anticipation and reaction within market dynamics, Hussain S.M. (2011) offers an examination of policy surprises' immediate impact on market volatility and returns. Smales L.A. and Apergis N. (2017) utilize a quantitative methodology to explore the dynamics between monetary policy announcements and the liquidity within financial markets, employing a panel regression analysis fixed on liquidity metrics observed at 1-, 5-, and 30-minute intervals. Their findings reveal a phased liquidity response pattern: an initial stage marked by diminishing liquidity and volume preceding the announcements, a surge in trading activity and reduced spreads and depths on the announcement day, followed by a phase where liquidity slowly rebounds despite sustained high trading volumes and activity levels. In a parallel analysis, Hussain S.M. (2011) categorizes monetary policy announcements into target and path surprises, adopting a categorization analogous to Smales L.A. and Apergis N. (2017) but extending its utility across both the European and U.S. markets. Utilizing 3-month Euribor and Eurodollar futures data, Hussain S.M. (2011) differentiates between actual policy decisions and market anticipations, employing a standardization technique that normalizes the surprise element. This approach, established on high-frequency data, allows a nuanced separation of monetary policy effects from concurrent macroeconomic news, thereby mitigating the risks associated with endogeneity and omitted variable biases. Hussain's S.M. (2011) analytical framework, which incorporates an ARMA model to examine stock index returns, stands in comparative assistance to methodology of Smales L.A. and Apergis N. (2017), offering a distinct yet complementary perspective on the market's response to policy communications.

Both studies underscore the critical role of the business cycle in shifting the effects of monetary policy announcements, suggesting that market reactions are not uniform but rather depend on broader economic contexts. The findings of Smales L.A. and Apergis N. (2017) suggest that unexpected tightening of monetary policy and

increases in statement complexity generally decrease liquidity but increase trading volumes, a dynamic that shifts with economic conditions such as recessions or periods of quantitative easing. Interestingly, the effect of statement complexity on market reactions appears to fade over time, indicating a possible adaptation or evolution in market participants' interpretative capabilities. Contrarywise, Hussain's S.M. (2011) examination of monetary policy surprises across European and U.S. markets underscores the varied responses to policy announcements. The results of Hussain S.M. (2011) show that ECB surprises often deviate from market expectations, affecting interest rates more significantly than expected, while FOMC and other central banks' surprises yield different market reactions, with notable variations in volatility and return patterns following announcements. Particularly, Hussain points out the significant impact of ECB press conferences, suggesting they introduce vital information that severely influences market volatility. This indicates a differential market sensitivity to the nature of policy announcements and the specificity of the information communicated.

The growing impact of policy decisions on the volatility of financial markets is highlighted in the work of Baker et al. (2019), who developed an Equity Market Volatility (EMV) tracker designed to quantify the influence of policy announcements on the fluctuations in stock prices. To construct this tracker, they aggregate data from leading U.S. newspapers regarding stock market volatility, alongside volatility indices (VIX) and the daily RVs of the S&P500, covering the years from 1985 to 2015. Their methodology categorizes the collected articles into thirty distinct groups based on the type of policy being discussed. Initial analysis of this categorization underscores the significance of each group, revealing a correlation with patterns observed in the VIX data and S&P500 daily RVs. The analysis indicates that fiscal policy, particularly tax policy, leads the discussion in about 35% of the EMV-related articles. Monetary policy topics are the focus of around 30%, regulatory issues cover about 25%, and national security concerns are addressed in approximately 13% of the articles. The EMV tracker is praised for its clarity, transparency, and flexibility, offering a tool that can be easily expanded for global application and adapted to different timeframes.

Moving away from traditional methods observed in the literature, Baker et al. (2019) present a distinctive methodology for analyzing the impact of policy announcements on market volatility. Their method contains the use of three defined sets of terms categorized as E (economic, economy, financial), M (stock market, equity-related terms, and S&P index), and V (volatility and related terms like uncertainty and risk). This nuanced method, employing a 30% sample of the total dataset covering the period from 1990 to 2015, distinguishes for its lack of country-

specific data, thereby extending its applicability outside the United States to a global context.

The datasets consist of articles containing at least one term from each of the E, M, and V categories from an expansive list of eleven major U.S. newspapers. This comprehensive approach provides a rich foundation for their analysis. Unlike previous studies, Baker et al.'s (2019) model measures the impact of policy on equity market volatility through a new formula: the ratio of articles focusing on specific policy issues to the total dataset, adjusted by the EMV monthly tracker. This unique approach not only highlights the significant role of policy announcements in influencing market dynamics but also offers flexibility in evaluating the effect of different policy types on stock volatility through robustness checks. This new approach in methodology generates an interesting discussion about the best ways to analyze and grasp the complex effects of policy announcements on financial markets.

Differing from previous studies, Baker et al. (2019) uncover distinct insights into the dynamics of policy-driven stock market volatility. Unlike earlier analyses that may have focused on singular data sources or specific policy impacts, Baker et al. (2019) highlight the increased accuracy in volatility tracking achieved through the collection of information from a diverse array of newspapers. This approach stands away from narrower datasets, highlighting the value of a broad media spectrum in capturing the nuances of market fluctuations. Furthermore, the robustness of their EMV metric under various newspaper weighting schemes, especially with a baseline of eleven newspapers, sets their methodology apart by showing stability in their analytical framework. Their analysis, revealing an increasing influence of policy decisions - mainly Monetary and Tax Policy - on stock market volatility, offers a more extensive time frame than the data presented in other studies.

Fiscal policy surprises represent a critical measurement of uncertainty in emerging stock markets, often highlighting significant market reactions. These unexpected announcements regarding government spending and taxation can greatly influence investor sentiment and market dynamics, underscoring the complex relationship between fiscal policy decisions and the financial health of emerging economies. Lee et al. (2022) delve into the nuanced dynamics between fiscal policy surprises and the performance of emerging stock markets, specifically focusing on Malaysia's Kuala Lumpur Composite Index (KLCI). Their study distinguishes between the effects of expanding versus restrictive fiscal news, employing an array of economic indicators, including the budget balance-to-GDP ratio and various proxy measures for monetary policy and economic conditions, to construct their model. Particularly, the study extends from 1997 to 2018, employing an asymmetric error correction model to

address the non-linear impacts of fiscal policy on the stock market, a methodological choice that underscores the complexity of fiscal policy's market effects.

In contrast, Švéda et al. (2022) adopt a distinct approach in assessing the influence of fiscal announcements on bond yields within several European countries. Their dataset, accurately collected from FACTIVA and focused on fiscal announcements, covers a broader period from 2000 to 2019. The selection of terms for analysis - country names, relevant personnel, and the content of fiscal news - mirrors the methodological rigor seen in Baker et al. (2019), albeit with a focus on the fiscal announcements. Their analytical framework, which categorizes the reaction of fiscal announcements and considers the timing of news effects, reflects a complex attempt to capture the immediate and nuanced responses of bond markets to fiscal news.

The methodologies of Lee et al. (2022) and Švéda et al. (2022) highlight the various perspectives through which fiscal policy impacts can be examined across different financial markets. While Lee et al. focus on the stock market within a single emerging economy, employing a detailed set of economic proxies and a time-series analysis to assess fiscal policy effects, Švéda et al. extend their study to several European nations, analyzing bond yields through the integration of fiscal news and its sentiment. Similarly, to the methodology used by Baker et al. (2019), Švéda et al. (2022) also use three sets of terms, however the dataset is different in a way that the first set represents the country, the second set represents the person related to the news, and the third set represents relevant content of the issued news, terms relevant to fiscal policy.

In their analysis, Švéda et al. (2022) categorize the impact of fiscal news using a scoring system: a hawkish announcement is scored as +1, neutral announcements as 0, and dovish announcements as -1. When several announcements happen on the same day, the most significant announcement is taken for their analysis. The similar approach is conducted by Heinlein R. and Lepori G. M. (2022), with slight modifications in the timing criteria. Švéda et al. (2022) assume that the influence of an announcement persists until 4:58 PM, meaning any news disclosed after this time is considered for the following day, while news communicated over the weekend is attributed to the next Monday. The data shows that news related to finance ministers is more common than news about prime ministers, with more reports tending to be hawkish. Additionally, the analysis highlights Italy, Poland, and Hungary as countries that implemented austerity measures more often in the period leading up to the European sovereign debt crisis.

Lee et al. (2022) and Švéda et al. (2022) offer observations on how fiscal policy and announcements influence market behavior, highlighting both differences and



similarities in their results. Lee et al. (2022) identify an asymmetric influence of fiscal policy on Malaysia's market returns, with particular variables like OIL and REER showing a evident impact in both short and long terms. Specifically, they highlight a non-linear relationship between RGDP, CPI, and the KLCI in the long term, along an asymmetric effect of fiscal policy in the short term yet noting insignificant impact of fiscal policy announcements on KLCI directly. On the other hand, Švéda et al. (2022) explore more the broader effects of fiscal announcements across European markets, finding that announcements generally have a negative and significant impact, regardless of whether they communicated from finance ministers or prime ministers. Their analysis extends to control variables that signal volatility and uncertainty, revealing patterns of reduced liquidity and increased yield spreads, alongside declines in stock indices. Interestingly, their research suggests that announcements related to prime ministers have more influence than those related to finance ministers, a distinction that may reflect the credibility and impact of the source on market expectations and reactions.

There are also studies which show how the disclosure of stress test results affects financial markets. Alves et al. (2015) explore the significance of stress test communications, questioning whether such disclosures influence market dynamics or if the effects are quickly absorbed into trading prices post-announcement. Going further, Sahin et al. (2020) extend the investigation to the US market, analyzing the consequences of stress test result disclosures on credit risk and equity prices. Their work not only repeats the themes addressed by Alves et al. (2015) but also broadens the scope to examine the impacts on both systemic and systematic risks.

Both Alves et al. (2015) and Sahin et al. (2020) employ event study methodologies with distinct approaches and datasets. Alves et al. (2015) collect a comprehensive dataset focusing on Western European financial stocks and CDS markets, involving 171 financial stocks, of which 101 were directly involved in the 2010 and 2011 stress tests. They further include 104 banks as reference entities in the CDS market, observing between those subjected to stress tests and not, to form a control group. Their data, sourced from Bloomberg and the European Banking Authority (EBA), contains stock prices, CDS market spreads, and benchmark national prices. Sahin et al. (2020), however, narrow their focus to the U.S. market, analyzing stock returns of banks that experienced U.S. stress tests from 2009 to 2015. Their dataset also includes the S&P500 returns index and 5-year senior CDS spreads but uniquely contains the CDX Investment Grade Index to reflect broader market sentiment. This inclusion, alongside the exclusion of holidays and limited trading days, marks a methodological deviation from Alves et al. (2015) and Švéda et al. (2022).

In terms of methodology, Alves et al. (2015) employ a comprehensive event study analysis over both short (5-day) and long (10-day) windows post-announcement, calculating the impact on CDS through returns of a synthetic bond and analyzing cumulative abnormal returns (CAR) using cross-sectional methods to adjust for market-wide effects. They also divide their dataset into control and treatment groups, with the treatment group categorized based on how banks perform in stress tests, to study changes in stock price volatility using GARCH models and May's U-test. On the contrary, Sahin et al. (2020) assess a more concise 3-day event window, with a broader 255 trading day estimation window to capture the immediate market reaction to stress test disclosures. Their approach to calculating CAR involves regressing individual bank CDS spreads against a broader market index, using a non-parametric generalized rank test to address time series correlation issues.

Alves et al. (2015) and Sahin et al. (2020) both investigate the impact of stress test disclosures on financial markets, yet their findings differ. Alves et al. (2015) highlight the nuanced reactions within European CDS and stock markets to stress test communications, observing an alignment between these markets across successive stress tests. They observe a distinguished market integration of stress test information, advising that the CDS market, possibly due to its participants' access to more detailed information, responds differently compared to the stock market. Interestingly, their analysis indicates that riskier financial institutions reveal more pronounced reactions in both CDS and stock prices upon the disclosure of stress tests, particularly evident during the first stress test. This points to a market sensitivity to the perceived risk levels of financial institutions to stress test outcomes.

In contrast, Sahin et al. (2020) extend the analysis to the U.S. context, particularly examining the impact of the SCAP stress test in 2009 combined with subsequent Fed stress tests. They argue that the SCAP stress test employs a more significant influence on market movements, relating this to the test's credibility and the banks' self-conducted estimates it incorporated. The timing and financial conditions containing the stress tests are viewed crucial in controlling the market's valuation of the information published. Their findings suggest a general positive reaction in stock markets and a negative reaction in CDS spreads following stress test disclosures, although the responses to post-crisis stress tests show variability and are not consistently positive. Particularly, Sahin et al. (2020) observe no difference in market reactions between Systemically Important Financial Institutions (SIFIs) and non-SIFIs, highlighting a uniform perception of systemic and systematic risks across the banking sector. Their longitudinal analysis across different years reveals that systemic and systematic risks tend to decrease following stress test disclosures, particularly in years

where stress tests were perceived as more credible, thereby confirming the role of stress tests in enhancing bank transparency and market stability.

Numerous studies across meta-analysis have explained the impact of macroprudential measures on asset pricing and credit risk, supporting the effectiveness of these tools when implemented. It is observed that the influence of macroprudential policies is more softened during periods of economic stability when policies are made stricter. Nevertheless, the adoption of such measures is crucial for reducing vulnerabilities, increasing the economy's capacity to withstand shocks, and lowering the likelihood of future economic downturns. The effectiveness of policy adjustments is significantly determined by their magnitude and direction, with tightening measures exercising a more evident effect. Reviewing the literature reveals that the response to the COVID-19 pandemic, particularly the relaxation of capital requirements, played an essential role in keeping credit flow to the economy, mentioning the potential benefits of maintaining positive neutral buffers in the future. Additionally, the evidence points towards the lasting impact of macroprudential policies, especially those targeted at borrowers, highlighting the value of their proactive application in securing long-term advantages (Biljanovska N. et al., 2023).

In their research, the authors expand upon existing literature regarding the impacts of macroprudential policy tools, particularly focusing on how these tools interact with other policy measures within emerging markets and developing economies throughout the 2001-2018 timeframe. Utilizing the Macroprudential Policy Database collected by the IMF, which includes monthly records of macroprudential actions (either as tightening or loosening) represented as dummy variables for 17 different macroprudential policy instruments, they categorize the dataset into three distinct actions: tightening, loosening, and unchanged. Additionally, they analyze three types of indices: a comprehensive index, an index focused on borrower-oriented measures - TVDSTI - and an index dedicated to lender-oriented measures. To determine the impacts of changes in macroprudential policies, the study employs a fixed effect ordered logit model. The effect of monetary policy is investigated through the residuals of a simplified Taylor rule, while fiscal policy impacts are measured using a fiscal-response-function. The comprehensive empirical framework makes use of the local projection method to integrate these analyses.

The findings indicate that over the 2001 to 2018 period, tightening measures accounted for more than 40% of all macroprudential policy adjustments, yet a 3% of these adjustments were due to macroprudential policy actions without influence from other policy areas. The analysis demonstrates a noticeable effect of policy interactions in emerging markets and developing economies, where foreign exchange interventions,

macroprudential, and fiscal policies mutually strengthen each other, leading to a more significant impact on credit risk. Contrastingly, such policy interactions are notably lacking in advanced economies.

Despite a big number of studies on the impacts of macroprudential policy tools, there remains a notable gap regarding the specific effects of macroprudential policy announcements on stock market valuations. Bluwstein and Patozi (2022) delve into this area by examining how unexpected macroprudential policy announcements influence systemic risk. They collect a dataset of 44 macroprudential policy announcements from the UK spanning 2009 to 2019, utilizing the ECB's Macroprudential Policies Evaluation Database (MaPPED) as a primary source. This database records over 2000 macroprudential policy actions across 28 EU countries from 1995 to 2017, encompassing a broad spectrum of policy tools such as capital, asset, and liquidity measures. For announcements post-2015 up to 2019, the authors draw on various sources including Financial Stability Reports, Prudential Regulation Authority Supervisory and Policy Statements, Financial Policy Committee Policy Statements, Basel III, and European Banking Authority publications. By transforming MaPPED's monthly data into daily increments, they improve the analysis and categorize the data by specific policy instruments. To mitigate the issue of data overlap, they adopt a method similar to Švéda et al. (2022), extracting relevant news from the FACTIVA database using keywords like 'monetary policy', 'banks', 'financials', 'unemployment', 'earnings', and 'inflation'. This process results in a final sample comprising 8 distinct macroprudential policy announcements.

Bluwstein and Patozi (2022) undertake an evaluation of how macroprudential policy announcements influence the financial markets by focusing on the equity returns of the six largest banks listed on the London Stock Exchange. They gather data on equity prices, trading volumes, and CDS spreads from Bloomberg, with the FTSE All Share Index serving as the market variable due to its full coverage of 600 companies. To estimate the impact of these announcements on the UK's systemic risk, they utilize the Composite Indicator of Systemic Stress (CISS), which is good for signaling financial sector stress and instability. For additional validation of their findings, the authors incorporate the Marginal Expected Shortfall (MES) and the FTSE100 Implied Volatility Index (VIXUK) into their robustness tests. Both metrics are effective in detecting financial conditions characterized by stress and instability.

The authors present a new approach in their study by constructing a pricing model to capture the effects of macroprudential policy shocks, identifying the absence of a direct financial instrument for such analysis. They apply a simplified CAPM model, identifying four key channels through which macroprudential policy can

influence the pricing model: impacts on banks' future profitability, probability of default, risk premium, and information effects from the Central Bank. This methodology shares similarities with other studies, employing an event study approach with a defined short window around the event for analyzing the significant deviation in abnormal returns and CDS spreads. However, their estimation window, set from 261 days to 2 days prior to the announcement, differs from methodologies used in other studies like those by Alves et al. (2015) and Sahin et al. (2020).

The study stands out by assessing the effect of macroprudential policy announcements on systemic risk using the local projection method, similar to the approach by Biljanovska N. et al. (2023), emphasizing the assumption that financial markets do not immediately absorb released information. The methodology accounts for variables like exchange rate fluctuations and economic uncertainty, with robustness tests including a quasi-placebo test aimed at evaluating systemic risk in China, highlighting the nuanced impact of macroprudential policies across different financial systems.

Bluwstein and Patozi (2022) discover that macroprudential policy announcements can significantly reduce systemic risk in the short term across equity and bond markets. Their findings indicate that almost half of the macroprudential policy announcements influence bank stock returns in the UK, with a major effect on banks' profitability and a minor impact on CDS spreads. The study emphasizes the unpredictable nature of the overall effects of policy surprises and challenges the ability of financial conditions to forecast future macroprudential policy adjustments. The analysis confirms the big role of macroprudential policies in mitigating systemic risk, with the peak effect occurring around 36 trading days post-announcement, suggesting an ongoing adjustment by banks to new regulatory requirements. This effect is particularly noted in the outcome of the Global Financial Crisis, with a reduction in systemic risk observed in the bond and equity markets of both financial and non-financial institutions, albeit without absolute evidence linking this reduction to the money and forex markets.

### 3. Data Construction

I investigate the impact of macroprudential policy and financial stability announcements, and the content included in these announcements. The data is constructed using the FACTIVA database for the set of countries located in Europe, focusing on articles where the macroprudential policy and financial stability news is communicated. Extensive period from 1 January 2000 to 30 October 2023 is applied since I assume it can capture the effects of economic circumstances of the sovereign debt crisis, the Global Financial Crisis (GFC), Covid-19 and Ukraine war. I use articles released by Reuters since their news is presumed to be unbiased and objective.

The first dataset of news needs to reflect well the macroprudential policy and financial stability communications in the whole Europe area, thus I specify the following terms, which can represent the macroprudential policy announcements well. In this study the following key terms represent macroprudential policy: ("macro\_prudential" or "macroprudential").

**Table 1. Key Terms Employed in the FACTIVA News Search**

<b>First dataset</b>	
<b>Relevant macroprudential term</b>	
	{“macro prudential” or “macroprudential”}
<b>Second dataset</b>	
<b>Relevant macroprudential term</b>	
	{“macro prudential” or “macroprudential”}
<b>Country identification</b>	
ES – Spain	{“Spain or Spaniard or Spanish” and “France or French or Frenchmen” and “Greece or Greek or Greeks” and “Ireland or Irish” and “Italy or Italian or Italians” and “Netherlands or Dutch or Dutchmen or Netherlanders” and “Portugal or Portuguese” and “Sweden or Swedesh” and “Switzerland or Swiss” and “Germany or German” and “Denmark or Danes” and “Norway or Norwegians”}
FR – France	
GR – Greece	
IE – Ireland	
IT – Italy	
NL – Netherlands	
PT – Portugal	
SE – Sweden	
NO – Norway	
CH – Switzerland	
DE – Germany	
DK – Denmark	

The second dataset of news reflects the macroprudential policy and financial stability communications specifying the selected European countries, covering not only the name of the country, but also related citizen identification (e.g. Greece, Greek or

Greeks). Since the analysis is also aimed to capture the effect of economic circumstances, I selected the countries participated in the GFC: Greece, Ireland, Portugal, Spain, Italy. In addition to that the selection is expanded to countries with advanced economies: France, Netherlands, Sweden, Switzerland, Germany, Denmark and Norway. Even though Switzerland is not a member of the European Union, it is tied closely with the EU and like other EU countries adopts macroprudential policy measures. Table 1 displays all parameters used for news collection.

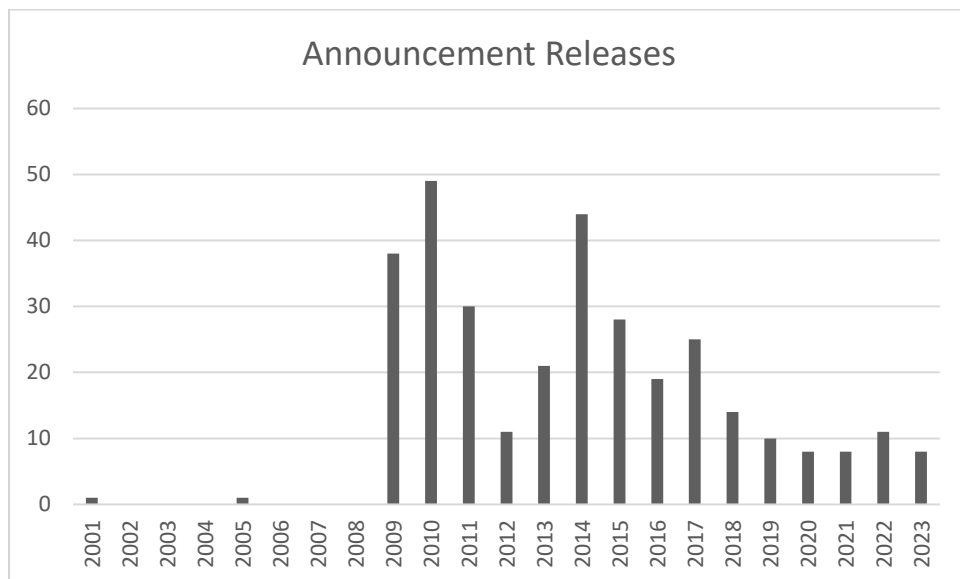
Furthermore, I remove unnecessary information from the data provided by FACTIVA based on selected keywords, leaving only financial market news in the subject section and Europe in the region section. The first dataset also contains communications related to the UK, which stay in the dataset. Adding the UK financial stability news to the sample offers a broader perspective on the European financial scene, recognizing the ongoing impact of UK decisions and events on markets across Europe. This inclusion enriches the analysis of European markets, providing a more detailed understanding of the complex relationships and interactions between the British and European financial systems. As a final step, I merge two datasets and remove all duplicates.

The merged news dataset contains 741 articles covering European countries and the UK for the period from 2 February 2001 to 10 October 2023, including 503 articles covering the European area for the period from 2 February 2001 to 26 June 2023 and 238 articles covering the UK for the period from 28 October 2008 to 10 October 2023.

The data analysis shows that there are clear patterns and changes in the frequency of announcement releases over the sampled period (Figure 1). A drop in news releases is evident during the GFC (2007-2008), possibly due to the lack of well-established macroprudential frameworks during that period. Without strong macroprudential tools and policies in place, fewer announcements may have been made regarding these measures. It is likely that policymakers and regulators were more focused on taking urgent crisis response actions like offering liquidity support, adding capital, and adjusting interest rates. During the Eurozone Sovereign Debt Crisis (2010-2014), there were more news releases, especially in 2010 and 2014. This increase in news may show a stronger emphasis on financial instability and problems in the banking sector, highlighting the growing importance of macroprudential policy interventions. The higher number of announcements might suggest a greater use of these policies during this challenging time. Despite the expected raise in news releases during times of economic uncertainty like Brexit negotiations, COVID-19 pandemic, and the Ukraine conflict, data indicates only a slight increase in announcements. This implies that even though these events were major, the number of formal

announcements didn't rise as expected. It is possible that responses to these events were varied and not limited to macroprudential policy measures, leading to a less significant increase in announcements.

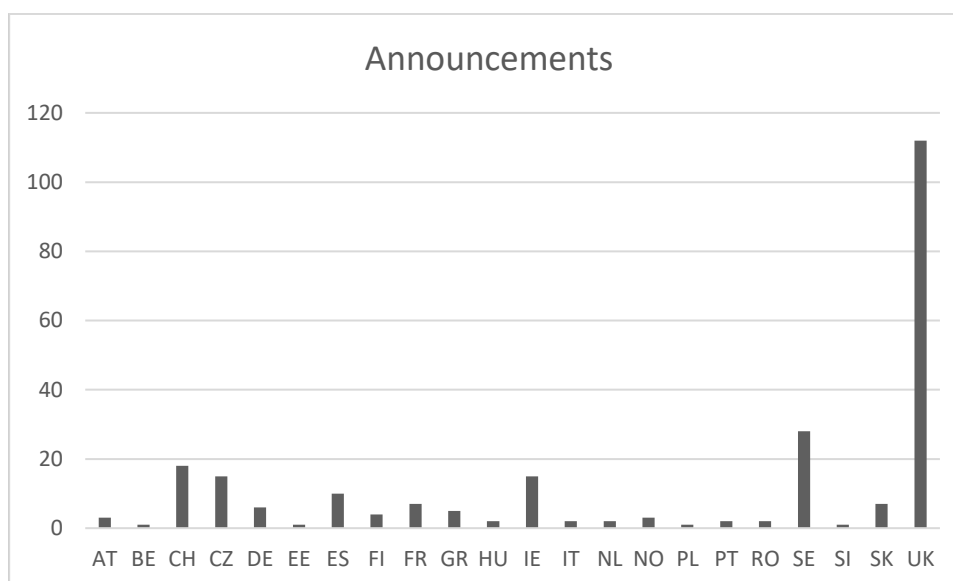
**Figure 1. Macroprudential Announcement Releases**



The chart in Figure 2 shows a detailed comparison of announcement release volume across different European countries during the study period. France and Spain stand out for having a significantly higher number of announcements. This suggests their strong economic position in the European Union and their involvement in policy-making and financial regulation, which requires a solid communication plan involving news release. However, announcement releases are much less common in countries like Ireland, Portugal, Denmark, and Norway. This could be due to smaller economies, fewer regulatory changes, or more focused communication strategies leading to fewer, but more significant announcements.



**Figure 2. Macroprudential Announcement Releases by Country**



I outline the common theme of the articles for each of the three perspectives in Table 2.

**Table 2. Explanation for the Assignment of Values to the Released Announcement**

Tightening announcement	<ul style="list-style-type: none"> <li>▪ increasing capital requirements: hold higher levels of capital to absorb potential losses, reducing their leverage and increasing their resilience to financial shocks</li> <li>▪ restrictions on Loan-to-Value (LTV) ratios: setting limits on the amount of money borrowers can borrow in relation to the value of the asset being purchased. Lowering the LTV ratio reduces the amount of debt borrowers can take on, mitigating risks associated with high levels of indebtedness</li> <li>▪ limits on Debt-to-Income (DTI) ratios: imposing restrictions on the amount of debt individuals or corporations can take on relative to their income. This measure aims to prevent excessive borrowing and reduce the likelihood of defaults</li> <li>▪ implementation of stress tests: requiring financial institutions to undergo stress tests to assess their ability to withstand adverse economic conditions</li> </ul>
Neutral announcement	<ul style="list-style-type: none"> <li>▪ monitoring and surveillance: continuously monitoring financial markets, institutions, and systemic risks without implementing any immediate policy changes</li> <li>▪ maintaining existing regulations: keeping existing macroprudential regulations and policies unchanged when there are no significant changes in the financial landscape or systemic risks</li> </ul>

	<ul style="list-style-type: none"> <li>▪ regular communication and guidance: providing regular communication and guidance to financial institutions and the public about macroprudential policies, regulations, and expectations</li> <li>▪ periodic review and evaluation: conducting periodic reviews and evaluations of macroprudential policies to assess their effectiveness, identify any gaps or weaknesses, and make adjustments as necessary</li> </ul>
Loosening announcement	<ul style="list-style-type: none"> <li>▪ reducing capital requirements: lowering the minimum capital requirements for banks and financial institutions, allowing them to hold less capital in reserve</li> <li>▪ easing Loan-to-Value (LTV) ratios: increasing the maximum loan-to-value ratios for mortgage lending, allowing borrowers to obtain higher loan amounts relative to the value of the property</li> <li>▪ lowering reserve requirements: decreasing the amount of reserves that banks are required to hold with the central bank</li> <li>▪ relaxing stress testing requirements: scaling back stress testing criteria for banks and financial institutions, making it easier for them to pass stress tests and meet regulatory requirements</li> </ul>

Below there are examples from the macroprudential policy announcements dataset:

*Tightening announcement*

- ECB Liikanen: Need further review of bank capital buffers (23 October 2012): The largest banks have to be prepared to store more capital as the new financial sector regulations are implemented, European Central Bank Governing Council member Erkki Liikanen said on Tuesday.
- Non-banks should also undergo stress tests, says ECB's Constancio (27 April 2015): Stress tests should be extended to major European financial institutions other than banks to help underpin the integrity of the region's financial system, the ECB's vice president, Vitor Constancio, said on Monday.

*Neutral or no announcement*

- HIGHLIGHTS-EU finance ministers, c.bankers in Prague (3 April 2009): The following are comments by European Union finance ministers and central bank governors meeting in Prague on Friday.
- EU finmins set to endorse financial supervision reform-draft (2 June 2009): The Council agrees that an independent macro-prudential body covering all

financial sectors, the European Systemic Risk Board (ESRB), should be established.

#### *Loosening announcement*

- UPDATE 2-Some at BoE want lending leeway on bank reserves (3 October 2011): A minority on the Bank of England's new Financial Policy Committee want to allow banks to boost lending immediately through tapping their cash-like reserves, a record of their meeting last month showed on Monday. Britain's banks say they are being put at a disadvantage to their international competitors as new, globally agreed liquidity rules will not be phased in until 2015 onwards.
- Euro banks getting 20 bln euro capital relief from macro regulators - ECB (15 April 2020): Euro area banks are getting capital relief worth 20 billion euros (\$21.9 billion) from the easing of macroprudential requirements by national supervisors around the bloc, the European Central Bank said on Wednesday, welcoming the moves.

The subsequent phase involves determining the specific day to which the announcement should be allocated. I follow the approach of Hussain S.M. (2011) and link news releases to the European trading market, which ends at 5:30 PM CET, since I presume that the announcement communication and its effect may stay till that specific time of the working day. Following a similar approach to that of Švédá et al. (2022) news released after that time is counted for the next working day. Furthermore, news released during weekends is added to Monday. I assign a value (+1, 0 or -1) depending on the macroprudential policy announcement stance. To address the issue of news overlapping I aggregate the number of news releases that occur on each date. This provides a count per date, which can reveal patterns over time, such as increases or decreases in the frequency of news releases. The final news dataset after the abovementioned filters consists of 741 announcement releases, 238 of which are related to the UK.

Table 3 showcases macroprudential policy announcements spanning the entire 23-year duration across European area, and Table 4 showcases macroprudential policy announcements spanning the entire 23-year duration across selected European countries and other European countries, which are mentioned in the first dataset.

**Table 3. Macroprudential Policy Announcements, 2001-2023, by measurement**

	<b>TIGHTENING</b>	<b>NEUTRAL</b>	<b>LOOSENING</b>	<b>TOTAL</b>
News Releases	300	415	26	741

**Table 4. Macroprudential Policy Announcements, 2001-2023, by measurement, by country**

	<b>TIGHTENING</b>	<b>NEUTRAL</b>	<b>LOOSENING</b>	<b>TOTAL</b>
AT - Austria	3	2	0	5
BE - Belgium	1	2	0	3
CZ - Czech Republic	14	21	1	36
DK - Denmark	0	1	0	1
EE - Estonia	1	0	0	1
FI - Finland	4	1	0	5
FR - France	4	9	3	16
DE - Germany	5	17	1	23
GR - Greece	3	18	2	23
HU - Hungary	2	2	0	4
IE - Ireland	14	9	1	24
IT - Italy	2	4	0	6
NL - Netherlands	2	2	0	4
NO - Norway	3	4	0	7
PL - Poland	0	6	1	7
PT - Portugal	2	1	0	3
RO - Romania	2	1	0	3
SK - Slovakia	7	4	0	11
SI - Slovenia	1	0	0	1
ES - Spain	9	15	1	25
SE - Sweden	24	27	4	55
CH - Switzerland	18	17	0	35
UK – United Kingdom	102	126	10	238

As a next step, I define two variables as follows. Variable ANNOUNCEMENT, which represents macroprudential policy announcement or financial stability announcement and has the value 1 in case the announcement has been released and 0 in case there is no announcement:

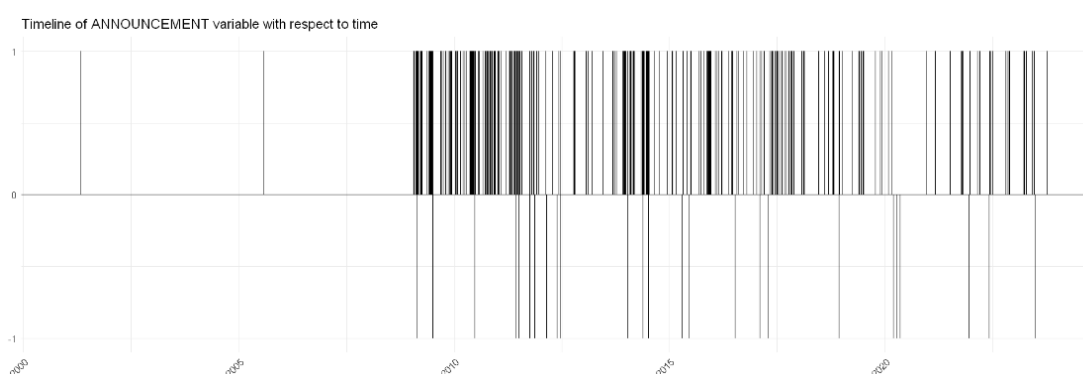
$$\text{ANNOUNCEMENT}_{i,t} = \begin{cases} 1 & \text{announcement} \\ 0 & \text{no announcement} \end{cases}$$

Variable DIRECTION, which represents the direction of the announcement towards tightening or loosening stance. Further, I assign the value +1 to each news capturing tightening and -1 capturing loosening macroprudential policy announcements following the approach by Švéda et al. (2022). The days with neutral stance and no announcements have a value of 0. By doing this I can quantify financial market sentiment in response to different types of policy announcements.

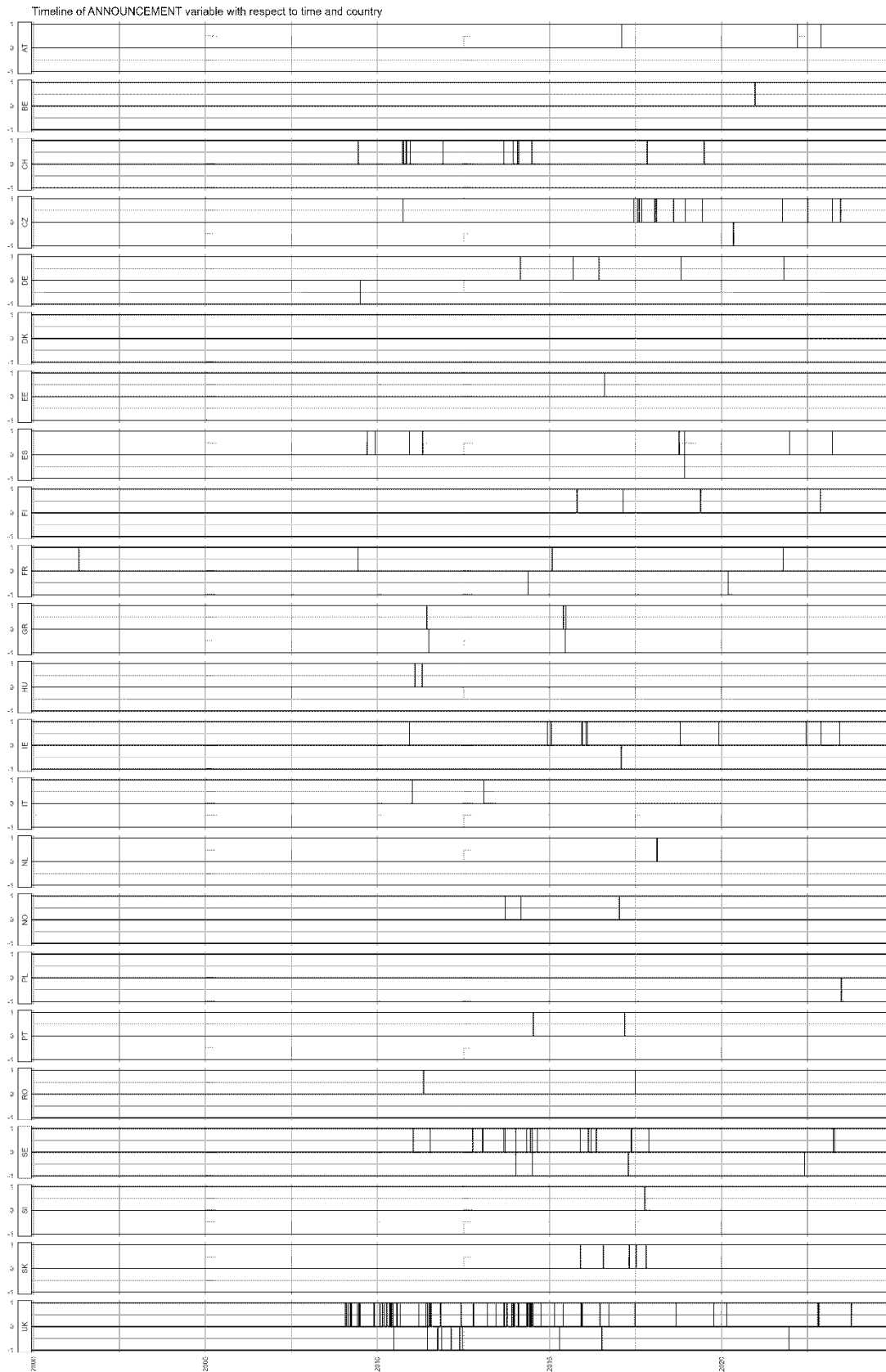
$$\text{DIRECTION}_{i,t} = \begin{cases} +1 & \text{tightening} \\ 0 & \text{neutral} \\ -1 & \text{loosening} \end{cases}$$

I analyzed the news dataset based on the direction of the announcement. Figure 3 illustrates how macroprudential announcements are distributed over time for the whole European area. Tightening policy announcements appear to be more frequent compared to loosening policy announcements, especially after the year 2009. Figure 4 illustrates how the macroprudential announcements are distributed across sampled countries over time. There is a clustering of tightening announcements across multiple countries. This could suggest a coordinated or synchronized response to financial instability or economic pressure. There is a pattern of increased tightening measures following the GFC (2007-2008) which resulted in severe financial instability and downturns in global economies. The movement toward stricter macroprudential regulations represents a collaborative initiative to emphasize the stability of the banking system, enhance the management of financial risks, and prevent the reoccurrence of a similarly severe crisis.

**Figure 3. Timeline of ANNOUNCEMENT variable with respect to time**



**Figure 4. Timeline of ANNOUNCEMENT variable with respect to time and country**



Empirical studies confirm the effect of announcements on stock prices (Hussain S.M. (2011), Alves et al. (2015), Smales L.A. and Apergis N. (2017), Bluwstein and Patozi (2022), Lee et al. (2022)). Thus, I use the European index (EURO STOXX) with a 10-year maturity to estimate the impact of announcements on large, mid, and small-cap companies in Europe using daily data. For the sampled countries I use market indices applicable to these countries. Separately, I use the 10-year government bond yields: Euro Government Bond for the European area and 10-year government bond yields issued by sampled countries. Additionally, I employ the implied volatility index (VSTOXX), which represents market expectations regarding future volatility. The data related to government bond yields, EURO STOXX and VSTOXX is downloaded from the Eikon database. The same sample period from 2 February 2001 to 10 October 2023 is applied to stock and bond market indices for the whole European area, including sampled countries, and for the UK.

Table 5 represents the summary of statistical analysis for the EURO STOXX, VSTOXX and 10-Y Euro Government Bond variables.

**Table 5. Statistical analysis for the EURO STOXX, VSTOXX and 10-Y Euro Government Bond variables**

<b>Variable</b>	<b>Min.</b>	<b>1st Qu.</b>	<b>Median</b>	<b>Mean</b>	<b>3rd Qu.</b>	<b>Max.</b>
EURO STOXX	158.0	263.5	329.4	324.4	380.7	494.3
VSTOXX	10.68	16.95	21.19	23.50	26.96	87.51
Yield	-0.84	0.45	2.24	2.19	3.89	5.28

Compared to VSTOXX, EURO STOXX exhibits elevated measurements across all statistical metrics (minimum, quartiles, median, mean, maximum). This indicates that EURO STOXX index levels were generally higher during the observation period. Furthermore, EURO STOXX displays a broader data distribution, characterized by a wider range between minimum and maximum values. In contrast, VSTOXX exhibits a narrower range, suggesting potentially lower volatility fluctuations during the analysis timeframe. The Euro government bond yield shows a minimum value below zero, indicating cases of negative yield, corresponding to periods of economic uncertainty. The average and middle values being above zero indicate times of profit, while the highest value of 5.28 indicates the possibility of higher profits possibly due to better economic conditions.

Figures 5 and 6 show line charts of independent variables. These charts depict the history of European financial markets, showing that stock prices can rise over extended periods but experience sudden drops during economic crises. The charts also reveal that economic uncertainty during these crises often leads to increased market volatility. The EURO STOXX index chart indicates a significant decline during the global financial crisis of 2008-2009. Another noticeable drop occurred around 2020, likely influenced by the COVID-19 pandemic's impact on markets. During both the 2008-2009 crisis and the 2020 pandemic, the EURO STOXX experienced substantial spikes in volatility. These peaks reflect investor uncertainty and increased risk aversion during market turbulence. In times of crisis, stock indices typically decline while volatility indices increase. This inverse correlation highlights volatility's role as an indicator of market response and risk appetite.

**Figure 5. Line chart of EURO STOXX**



**Figure 6. Line chart of VSTOXX**

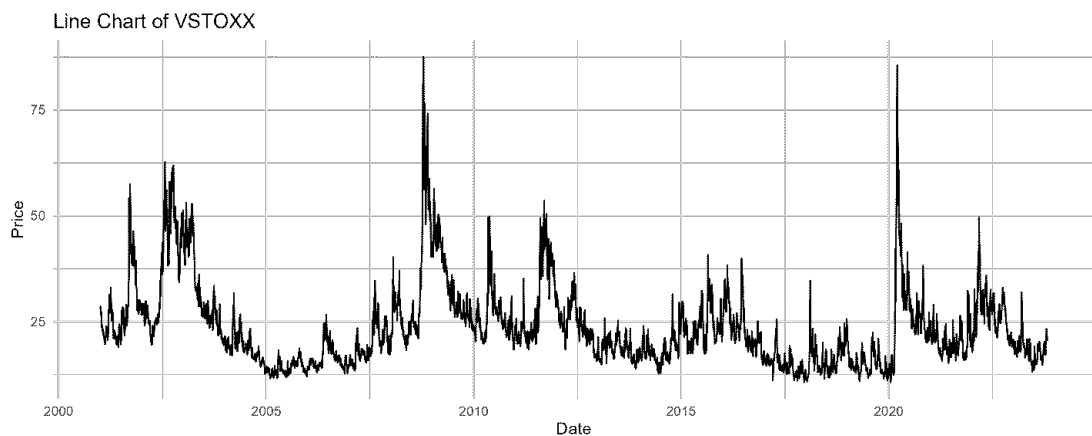
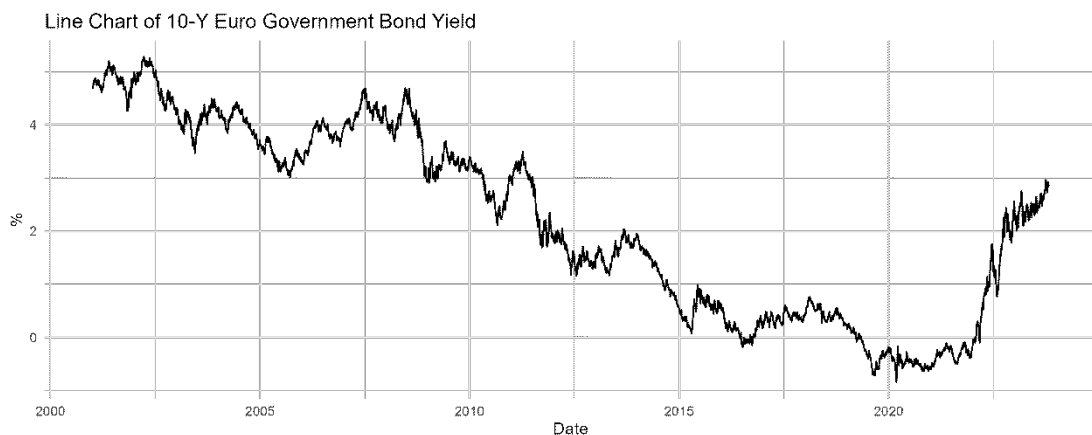


Figure 7 tracks the historical performance of the 10-year Euro Government Bond Yield over the last twenty years. In financial markets bond yields move in the opposite direction of bond prices: when prices rise, yields fall, and vice versa. Before



the Global Financial Crisis of 2007-2008, interest rates were fairly consistent, showing changes that were probably related to typical market trends and the ups and downs of economic cycles. During the GFC the return on Euro Government Bonds dropped, indicating a trend of investors turning to the security of government securities amid market instability. The European Debt Crisis captures lower levels, possibly because of the European Central Bank's efforts to stabilize markets. This included reducing interest rates and purchasing bonds, leading to higher bond prices and lower yields. Following the debt crisis, interest rates continued to decrease as the European economy faced slow growth. The COVID-19 pandemic shows reduced levels due to central bank interventions aimed at offsetting the economic effects of the pandemic. The interest rates are cut, and investors are limited in buying government bonds, which caused bond prices to rise and yields to fall. The recent increase could be a reaction to hopes of economic improvement, rising prices, or adjustments in the central bank's approach, which may result in less bond purchases or higher interest rates.

**Figure 7. Line chart of 10-Y Euro Government Bond Yield**



For the control variables, I exploit 3M EURIBOR, the exchange rate Euro to USD for the whole Europe and country specific exchange rates for selected countries, and Standard & Poor's 500 index (S&P 500). These variables can impact a broad array of economic and financial results. By including them in the model as control variables it would be easier to separate the influence of the announcements from the general economic conditions. This implies that it would increase the precision of estimates produced by the model and remove the bias caused by other factors in estimating those effects. I expect when 3M EURIBOR has lower rates stock prices can go up as lower rates stimulate investment and spending. Interest rates oppositely affect bond prices. When rates fall, bond prices typically rise, and vice versa, due to the fixed-income

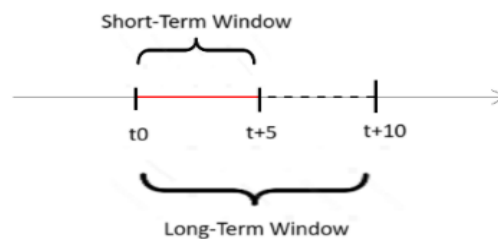
nature of bonds. A more powerful euro could reduce European export competitiveness leading to decreases in companies' stock prices that rely heavily on exports. Monetary policy decisions made by the European Central Bank are influenced by exchange rates and can affect inflation as well as bond prices. I assume the Standard & Poor's 500 index is a major indicator of health for the economy as well as investors' feelings. And it can cause changes in European stock prices because countries are connected globally.

## 4. Methodology

### *Event study methodology*

I follow a standard event study methodology to assess the effect of macroprudential policy news releases on financial markets. I assign the macroprudential policy announcement dates as  $t = 0$ . Similarly to Alves et al. (2015), I exploit short-term (5 days) and long-term (10 days) ‘event windows’ to capture the immediate effect of the announcement and the effect in the long run. Thus, the ‘event window’ is represented as follows:  $[t_0; t_{10}]$  for the long-term window, and  $[t_0; t_5]$  for the short-term window with  $t_0$  as defined (Figure 8). However, to gain a more comprehensive understanding, I have extended my analysis to include 1-day, 2-day, 3-day, and 4-day short-term event windows. The impact is measured not directly on the stock and bond prices, but on the difference in the stock index and the change in bond yields. For the VSTOXX the impact is measured directly on VSTOXX index.

**Figure 8. Event study timeline**



### *Pooled OLS method*

I examine the market impact of macroprudential policy announcements during the short-term and long-term ‘event windows’ by the Pooled OLS method as it allows a straightforward estimation directly from the high-frequent data. The simplicity of the method is a key advantage, especially when describing the model. Incorporation of event study into Pooled OLS methodology improves the assessment of the effectiveness of policy interferences by analyzing the aftereffects of macroprudential policy announcements or implementations across different regions or countries. By isolating the period around an event using short-term and long-term window events I

increase the power of the tests, offering a better understanding of how events impact panel data over time and cause changes. This strategy leverages the benefits of both approaches.

The standard formula of Pooled OLS event study method follows the following form:

$$Y_{it} = \alpha + \sum_{j=1}^k \beta_j X_{jit} + \sum_{l=1}^m \gamma_l Z_{lit} + \epsilon_{it} \quad (1)$$

I adjust the model (1) to this study and add short-term and long-term event windows. The regression model, aimed at capturing the effect of macroprudential policy measures in the whole European area on the 10-Y Euro Government Bond yields, has the following form:

$$\Delta YIELD_{i,t+h} = \alpha + \sum_{k=-K}^K \beta_{h,k} \times ANNOUNCEMENT_{i,t+k} + \delta X_{i,t+h} + \gamma \times \Delta YIELD_{i,t-1} + \epsilon_{i,t+h} \quad (2),$$

where  $\Delta YIELD_{i,t+h}$  is the change in yield for bond for unit  $i$  at the time  $t+h$  with a 10-year maturity with  $h$  equals from 1 to 5 days and 10 days,  $\alpha$  is the intercept term for the model at horizon  $h$ , which is the expected change in yield when all other variables are zero,  $\beta_{h,k}$  coefficients measure the impact of announcements relative to time  $t$  (positive values represent the period after),  $ANNOUNCEMENT_{i,t+k}$  represents the event indicators,  $\delta$  represents the effect of changes in control variables  $X_{i,t+h}$  (3M EURIBOR, Exchange Rate, S&P 500) for unit  $i$  at the time  $t+h$ ,  $\gamma$  captures the relationship between the change in yield at time  $t-1$  and the change in yield at time  $t+h$ , and  $\epsilon_{i,t}$  is the error term.

The regression model, aimed at capturing the effect of macroprudential policy measures in the whole European area on stock indices, has the following form:

$$\Delta STOCK_{i,t+h} = \alpha + \sum_{k=-K}^K \beta_{h,k} \times ANNOUNCEMENT_{i,t+k} + \delta X_{i,t+h} + \gamma \times \Delta STOCK_{i,t-1} + \epsilon_{i,t+h} \quad (3),$$

where  $\Delta STOCK_{i,t+h}$  is the change in stock price index for unit  $i$  at the time  $t+h$  with  $h$  equals from 1 to 5 days and 10 days,  $\alpha$  is the intercept term for the model at horizon  $h$ , which is the expected change in stock indices when all other variables are zero,  $\beta_{h,k}$  coefficients measure the impact of announcements relative to time  $t$  (positive values represent the period after),  $ANNOUNCEMENT_{i,t+k}$  represents the event

indicators,  $\delta$  represents the effect of changes in control variables  $X_{i,t+h}$  (3M EURIBOR, Exchange Rate, S&P 500) for unit  $i$  at the time  $t+h$ ,  $\gamma$  captures the relationship between the change in stock indices at time  $t-1$  and the change in yield at time  $t+h$ , and  $\epsilon_{i,t}$  is the error term.

The regression model, aimed at capturing the effect of macroprudential policy measures in the whole European area on the volatility index, has the following form:

$$VSTOXX_{i,t+h} = \alpha + \sum_{k=-K}^K \beta_{h,k} \times ANNOUNCEMENT_{i,t+k} + \delta X_{i,t+h} + \gamma \times VSTOXX_{i,t-1} + \epsilon_{i,t+h} \quad (4),$$

where  $VSTOCK_{i,t+h}$  is the change in VSTOXX index for unit  $i$  at the time  $t+h$  with  $h$  equals from 1 to 5 days and 10 days,  $\alpha$  is the intercept term for the model at horizon  $h$ , which is the expected change in volatility stock indices when all other variables are zero,  $\beta_{h,k}$  coefficients measure the impact of announcements relative to time  $t$  (positive values represent the period after),  $ANNOUNCEMENT_{i,t+k}$  represents the event indicators,  $\delta$  represents the effect of changes in control variables  $X_{i,t+h}$  (3M EURIBOR, Exchange Rate, S&P 500) for unit  $i$  at the time  $t+h$ ,  $\gamma$  captures the relationship between the volatility stock indices at time  $t-1$  and the volatility at time  $t+h$ , and  $\epsilon_{i,t}$  is the error term.

Models (2), (3), and (4) can examine the overall effect of macroprudential policy announcements on the dependent variables (1 if there is an announcement, and 0 if there is no announcement). However, to understand how the announcement of specific policy announcement impacts the spread I need to add a categorical variable  $DIRECTION$ , indicating the nature of the measure, -1 for loosening, +1 for tightening. Thus, the regression models are defined as follows:

$$\Delta YIELD_{i,t+h} = \alpha + \sum_{k=-K}^K \beta_{h,k} \times DIRECTION_{i,t+k} + \delta X_{i,t+h} + \gamma \times \Delta YIELD_{i,t-1} + \epsilon_{i,t+h} \quad (5),$$

$$\Delta STOCK_{i,t+h} = \alpha + \sum_{k=-K}^K \beta_{h,k} \times DIRECTION_{i,t+k} + \delta X_{i,t+h} + \gamma \times \Delta STOCK_{i,t-1} + \epsilon_{i,t+h} \quad (6),$$

$$VSTOXX_{i,t+h} = \alpha + \sum_{k=-K}^K \beta_{h,k} \times DIRECTION_{i,t+k} + \delta X_{i,t+h} + \gamma \times VSTOXX_{i,t-1} + \epsilon_{i,t+h} \quad (7),$$

where  $DIRECTION_{i,t+k}$  is a categorical variable indicating the policy direction for entity  $i$  at time  $t+k$  where  $k$  ranges from 1 to 5 and to 10 with -1 representing

loosening, and +1 representing tightening, relative to the neutral stance, which serves as the reference point and therefore is not specified in the model.

This methodology is applied to the merged dataset to study the effect of policy announcements on the whole European area and sampled European countries. For the European dataset I filter out the UK announcements. And for the sampled countries I take the countries where the announcements are made more than five times. By doing this I ensure that there's enough variation to assess the effect of these announcements on the variables of interest and to create reliable estimates that are not heavily influenced by random noise or outliers. Moreover, a larger number of announcements helps mitigate the impact of sampling error. And few observations may not offer sufficient evidence to make meaningful conclusions about the effects of announcements. Thus, the country specific analysis includes the following countries: Czech Republic, Germany, Spain, France, Greece, Ireland, Sweden and UK.

For the sampled dataset I utilize the same Pooled OLS model using 5-day and 10-day event windows, as it is good for analyzing the panel data with country factor. It makes analyzing and understanding easier by concentrating on average effects and offers the most accurate estimates with the least variation compared to all other unbiased linear estimators under the right conditions. Furthermore, I assess the effect of a country factor on changes in Government bond yields, stock prices and volatility index for the European area to understand which countries drive changes in European financial indices.

#### *Specification tests*

I assess the models (2-7) for autocorrelation, heteroskedasticity, stationarity, multicollinearity. This can be performed using tests such as the Durbin-Watson Test, Ljung-Box Q test, Breusch-Pagan test, the ADF test, the correlation matrix, and the calculation of VIF values.

#### *Robustness checks*

A robustness check is conducted on the sampled European countries to test if the effect is consistent across groups. This approach should allow for a comparison of effects between the whole European area and sampled countries. By estimating the same models for sampled countries, I can observe whether the effect size, direction, and statistical significance are similar.

The initial dataset for the whole European area contains announcements related to the UK. This data is excluded from the whole Europe area analysis and instead is included in the sampled countries analysis to check the correctness of the model. Each country's market has its distinct features. The UK market may bring in some extra diversity and possibly display different trends compared to other markets in Europe. The UK announcement data can confirm the findings are robust across different European countries. Moreover, this performance can serve as a sensitivity analysis and examine how model results can change when a country with unique economic and financial conditions is included.

I analyze the effect of a single macroprudential policy direction on the 10-Y Euro Government Bond changes, STOXX index changes and on VSTOXX index. By focusing solely on the impact of either tightening announcements or loosening announcements, I can study how the financial markets respond to each kind of policy change. This analysis can reveal whether different announcement types have unique effects on the dependent variable. Examining the effects individually can uncover any asymmetries that may be hidden when both types of announcements are studied together. Additionally, analyzing the directional effects separately before comparing them to the combined effects helps ensure the model is reliable across various situations.

### *Hypothesis testing*

I assess the stance of macroprudential policy announcement outcomes in government bond yields, stock prices and market volatility. Specifically, the following three hypotheses are tested:

**Hypothesis 1:** The announcement of macroprudential policy measures increases government bond spreads and decreases stock prices.

I expect the immediate reaction to macroprudential policy announcements to change the stock prices, as markets adjust to new information and reassess risk. However, the reaction could vary in the long run based on the stance of the announcements.

**Hypothesis 2:** The magnitude of the market impact of macroprudential policy news varies depending on the specific policy measures announced.

Tightening measures are aimed at reducing financial risks and the likelihood of systemic risk. Thus, immediate reaction might be negative, I expect stock prices to decline leading to negative sentiment among investors. However, in the long run, if the measures are implemented successfully, market stability might increase providing a positive investment environment. In such cases I expect stock prices to increase.

Loosening measures relate to more relaxed regulatory requirements and active economic activity, which make investors actively participate in economic transactions. The immediate response might increase stock prices. The opposite might happen in the long run, as such measures could lead to financial imbalances. In such cases, I anticipate the initial increase in stock prices to go down.

**Hypothesis 3:** The market impact of macroprudential policy news on financial stability indicators is influenced by overall economic conditions.

The economic conditions might overshadow the effect of macroprudential policy announcements on financial markets due to the broad impact, economic trends, and market sentiment. Moreover, changes in economic conditions might have a direct effect on the whole corporate sector, while the effect of macroprudential measures on companies might be subtle, especially for those companies outside of the financial sector.



## 5. Results

The examined models and the Ljung-Box Q, Breusch-Pagan specification tests suggest that there is a presence of autocorrelation and heteroskedasticity issues. Moreover, the ADF test indicated that the 10-Y Euro Government Bond Yield data is non-stationary. The tests for multicollinearity do not identify the issue with the data. The specification tests are presented in the Appendix section, Table A1. I control the identified issues by implementing variable transformations: differencing both dependent and independent variables, inclusion of lagged dependent variables. Differencing both the dependent and independent variables can make sure that all the series in the model are stationary. Additionally, incorporating lagged dependent variables can greatly decrease autocorrelation by elucidating the persistence seen in the dependent variable. Moreover, I use the robust standard error method by applying the Newey-West standard errors procedure. This allows for more reliable results and hypothesis testing. I present the Pooled OLS results for the whole Europe area and then country-specific results based on sampled countries.

### **European Area Results**

This section describes the pan-European results of ANNOUNCEMENT on changes in bond yields, stock prices and market volatility. Short-term windows are presented by a window from 1 to 5 days following the announcement, while the long-term window is presented by a 10-day window following the announcement. First, I explain the effect of announcements on changes in bond yields. Examining how changes in bond yields react to announcements shows the dynamics of the market response after the communication. Second, I present the results of immediate (1 to 5 days following the communication) and delayed effect (10 days following the communication) of announcements on changes in stock prices for the whole EU. Third, I describe the results of announcements on Volatility Index within the day as it reacts promptly to news, announcements, or events. Therefore, it is possible to assess the immediate reaction, which can give valuable insights. Additionally, I provide explanations for the effect of other control variables on dependent variables of interest.

***Results of the effect of ANNOUNCEMENT on changes in yield for short-term and long-term event windows***

The results of the regression model (2) are shown in Table 6. The coefficient for ANNOUNCEMENT has a statistically significant positive effect on changes in bond yields 2 days after the announcement (p-value < 0.05). A significant positive effect is also observed 4 and 5 days after the announcement (p-value < 0.05). Changes in bond yields are increased by announcements. There is no effect on the 1<sup>st</sup>, 3<sup>rd</sup> and 10<sup>th</sup> day following the announcement. The change in Euribor has a statistically significant positive effect on changes in bond yields from 1 to 3 days after the announcement (p-value < 0.01). There is an immediate market reaction, which increases changes in bond yields as changes in Euribor increase. A statistically positive effect is also observed 5 days after the announcement, but not in the long run. Change in the exchange rate shows a statistically significant positive effect on changes in bond yields 1 day after the announcement (p-value < 0.05), but no significant effect in the subsequent days.

**Table 6. Regression Results of ANNOUNCEMENTS on Changes in Yield (short-term and long-term windows)**

<b>Dependent Variable: ΔYIELD</b>						
	<b>1-day</b>	<b>2-day</b>	<b>3-day</b>	<b>4-day</b>	<b>5-day</b>	<b>10-day</b>
<b>Announcement</b>	0.021 (0.012)	0.027* (0.011)	0.020 (0.010)	0.024* (0.011)	0.015* (0.006)	0.004 (0.004)
<b>Change in Euribor</b>	0.336*** (0.082)	0.297*** (0.056)	0.285*** (0.058)	0.036 (0.043)	0.079* (0.037)	0.011 (0.033)
<b>Change in Exchange Rate</b>	2.151** (0.827)	0.930 (0.723)	0.430 (0.473)	0.405 (0.567)	0.149 (0.304)	0.087 (0.259)
<b>Change in S&amp;P 500</b>	0.204 (0.499)	0.465 (0.472)	0.187 (0.328)	0.325 (0.425)	0.077 (0.235)	0.135 (0.100)
<b>Lagged Change in Yield</b>	-0.181* (0.081)	0.304 (0.218)	0.444*** (0.110)	0.669*** (0.104)	0.703*** (0.072)	0.840*** (0.065)
<b>Constant</b>	-0.010 (0.006)	-0.027** (0.009)	-0.033** (0.012)	-0.049* (0.020)	-0.035** (0.013)	-0.020 (0.017)
<b>Observations</b>	501	500	499	498	497	493
<b>R2</b>	0.392	0.412	0.464	0.550	0.598	0.782
<b>Adjusted R2</b>	0.386	0.406	0.458	0.546	0.594	0.780
<b>F Statistics</b>	63.756*** (df = 5; 495)	69.109*** (df = 5; 494)	85.293*** (df = 5; 493)	120.455*** (df = 5; 492)	145.988*** (df = 5; 491)	349.976*** (df = 5; 487)

**Note:** \*p<0.05; \*\*p<0.01; \*\*\*p<0.001

Previous period's bond yield change has a significant negative effect 1 day after the announcement (p-value < 0.05). however, there is a significant positive effect on the 3rd, 4th, 5th and 10th day (p-values < 0.01). Change in S&P 500 does not have any effect on changes in bond yields.

***Results of the effect of ANNOUNCEMENT on changes in STOXX index for short-term and long-term event windows***

The results of the regression model (3) are shown in Table 7. The coefficient for ANNOUNCEMENT shows a statistically significant positive effect on the changes in stock prices 5 days after the announcement (p-value < 0.05), indicating that announcements increase changes in stock prices 5 days following the announcement. No significant effect is found on the other days, including the 10-day window. The coefficient for exchange rate changes has a positive and statistically significant effect on changes in stock prices for all event windows.

**Table 7. Regression Results of ANNOUNCEMENTS on Changes in STOXX (short-term and long-term windows)**

Dependent Variable: $\Delta$ STOXX						
	1-day	2-day	3-day	4-day	5-day	10-day
<b>Announcement</b>	-0.003 (0.002)	-0.001 (0.001)	0.001 (0.001)	0.003 (0.001)	0.003* (0.001)	0.001 (0.001)
<b>Change in Euribor</b>	-0.014 (0.012)	-0.012 (0.014)	-0.004 (0.005)	-0.024 (0.017)	-0.005 (0.008)	0.002 (0.007)
<b>Change in Exchange Rate</b>	0.409*** (0.062)	0.313** (0.106)	0.256* (0.118)	0.321*** (0.052)	0.375*** (0.050)	0.221** (0.071)
<b>Change in S&amp;P 500</b>	0.864*** (0.078)	0.794*** (0.071)	0.738*** (0.041)	0.740*** (0.058)	0.710*** (0.062)	0.511*** (0.054)
<b>Lagged Change in STOXX</b>	-0.025 (0.082)	0.192* (0.087)	0.319*** (0.036)	0.344*** (0.041)	0.328*** (0.060)	0.504*** (0.047)
<b>Constant</b>	0.0002 (0.001)	-0.001 (0.001)	-0.004* (0.002)	-0.008** (0.003)	-0.009** (0.003)	-0.011* (0.005)
<b>Observations</b>	501	500	499	498	497	493
<b>R2</b>	0.659	0.738	0.844	0.868	0.875	0.926
<b>Adjusted R2</b>	0.655	0.735	0.843	0.866	0.874	0.925
<b>F Statistics</b>	191.246*** (df = 5; 495)	278.218*** (df = 5; 494)	534.396*** (df = 5; 493)	644.292*** (df = 5; 494)	686.646*** (df = 5; 491)	1,212.714 (df = 5; 487)

**Note:** \*p<0.05; \*\*p<0.01; \*\*\*p<0.001

Similarly, the coefficient for changes in S&P 500 demonstrates positive and statistically significant effect on dependent variable for all event windows. The lag of changes in stock prices has a positive and significant effect on current stock price changes from 2<sup>nd</sup> day following the announcement and further. Meaning that increase in changes of these variables increases the change in stock prices. Change in Euribor shows no effect on dependent variable for all event windows.

***Results of the effect of ANNOUNCEMENT on the Volatility Index***

The results of the regression model (4) are shown in Table 8. The coefficient for S&P 500 has a negative and statistically significant effect on market volatility ( $p < 0.01$ ). This implies that an increase in the S&P 500 is associated with a decrease in European market volatility. A statistically significant and positive effect is observed for the lagged volatility index ( $p < 0.001$ ), indicating that past volatility is a strong predictor of current volatility. ANNOUNCEMENT, Euribor and exchange rate do not have any effect. This implies the data does not strongly support the idea that announcements increase market volatility.

**Table 8. Regression Results of ANNOUNCEMENTS on VSTOXX**

<b>Dependent Variable: VSTOXX</b>	
	<b>1 day</b>
<b>Announcement</b>	0.134 (0.141)
<b>Euribor</b>	-0.114 (0.168)
<b>Exchange Rate</b>	5.106 (2.626)
<b>S&amp;P 500</b>	-2.403** (0.877)
<b>Lagged VSTOXX</b>	0.864*** (0.055)
<b>Constant</b>	16.843** (5.869)
<b>Observations</b>	502
<b>R2</b>	0.866
<b>Adjusted R2</b>	0.864
<b>F Statistics</b>	638.558***
	(df = 5; 496)

**Note:** \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$

The following section describes pan-European results of announcements' DIRECTION towards tightening or loosening stance and its effect on financial market. First, I explain the results of DIRECTION on changes in bond yields for short-term (1-5 days) and long-term (10 days) event windows. Second, I provide explanations on the

effect of dependent variable on changes in stock prices for the same short-term and long-term event windows. Third, I describe the results of announcements' direction on market volatility within 1 day. These results bring insights into how different types of announcements impact financial markets. Additionally, I provide explanations for the effect of other control variables on dependent variables of interest.

***Results of the effect of DIRECTION on changes in yield for short-term and long-term event windows***

The results of the regression model (5) are shown in Table 9.

**Table 9. Regression Results of DIRECTION on Changes in Yield (short-term and long-term windows)**

Dependent Variable: $\Delta YIELD$						
	1-day	2-day	3-day	4-day	5-day	10-day
<b>Tightening</b>	0.018 (0.010)	0.024* (0.010)	0.014 (0.009)	0.020* (0.010)	0.011 (0.006)	0.003 (0.004)
<b>Loosening</b>	0.060 (0.058)	0.058 (0.042)	0.077* (0.035)	0.073* (0.032)	0.066* (0.027)	0.032* (0.016)
<b>Change in Euribor</b>	0.334*** (0.081)	0.296*** (0.057)	0.283*** (0.057)	0.038 (0.044)	0.081* (0.034)	0.016 (0.031)
<b>Change in Exchange Rate</b>	2.156** (0.822)	0.926 (0.717)	0.422 (0.466)	0.391 (0.571)	0.125 (0.305)	0.061 (0.250)
<b>Change in S&amp;P 500</b>	0.209 (0.497)	0.466 (0.472)	0.210 (0.323)	0.354 (0.427)	0.110 (0.026)	0.156 (0.094)
<b>Lagged Change in Yield</b>	-0.182* (0.081)	0.301 (0.215)	0.442*** (0.108)	0.664*** (0.101)	0.696*** (0.073)	0.834*** (0.059)
<b>Constant</b>	-0.010 (0.006)	-0.027** (0.009)	-0.032** (0.012)	-0.049* (0.020)	-0.036** (0.013)	-0.025 (0.017)
<b>Observations</b>	501	500	499	498	497	493
<b>R2</b>	0.394	0.414	0.473	0.558	0.607	0.785
<b>Adjusted R2</b>	0.387	0.407	0.466	0.552	0.602	0.782
<b>F Statistics</b>	53.611*** (df = 6; 494)	58.024*** (df = 6; 493)	73.518*** (df = 6; 492)	103.141*** (df = 6; 491)	126.128*** (df = 6; 490)	295.812*** (df = 6; 486)

**Note:** \*p<0.05; \*\*p<0.01; \*\*\*p<0.001

The coefficient for TIGHTENING announcement is statistically significant (p < 0.05) and has a positive effect on changes in bond yield 2 days and 4 days after the tightening announcement. The coefficients for LOOSENING announcements are

positive and become statistically significant ( $p < 0.05$ ) 3 days after the loosening announcement and further. The coefficient for Euribor changes shows a significant positive effect on changes in bond yields 1 day and 2 days and 3 days after the announcement ( $p$ -value  $< 0.01$ ), while on the 5th day, the effect is marginally significant ( $p$ -value  $< 0.05$ ). Change in exchange rate has a positive and statistically significant effect ( $p < 0.01$ ) 1 day after the announcement, indicating a relationship where increases in exchange rate changes are associated with increases in bond yield changes. The lag of yield changes has a negative and statistically significant effect ( $p < 0.05$ ) 1 day after the announcement, while the effect changes to positive and significant ( $p < 0.001$ ) 3 days after the announcement and later. The coefficient for changes in S&P 500 shows no effect on changes in bond yields for all event windows.

***Results of the effect of DIRECTION on changes in STOXX for a short-term and long-term event windows***

**Table 10. Regression Results of DIRECTION on Changes in STOXX (short-term and long-term windows)**

Dependent Variable: $\Delta$ STOXX						
	1-day	2-day	3-day	4-day	5-day	10-day
<b>Tightening</b>	-0.002 (0.001)	-0.00001 (0.001)	0.001 (0.001)	0.003 (0.001)	0.002 (0.001)	0.001 (0.001)
<b>Loosening</b>	-0.014 (0.008)	-0.007 (0.006)	-0.001 (0.006)	0.004 (0.005)	0.004 (0.003)	0.003 (0.002)
<b>Change in Euribor</b>	-0.014 (0.011)	-0.012 (0.014)	-0.004 (0.006)	-0.024 (0.017)	-0.005 (0.008)	0.002 (0.007)
<b>Change in Exchange Rate</b>	0.408*** (0.061)	0.315*** (0.081)	0.256* (0.108)	0.320*** (0.048)	0.374*** (0.050)	0.217** (0.072)
<b>Change in S&amp;P 500</b>	0.863*** (0.077)	0.798*** (0.068)	0.739*** (0.041)	0.740*** (0.057)	0.709*** (0.062)	0.508*** (0.054)
<b>Lagged Change in STOXX</b>	-0.028 (0.080)	0.185* (0.083)	0.318*** (0.033)	0.345*** (0.045)	0.329*** (0.060)	0.509*** (0.048)
<b>Constant</b>	0.0002 (0.001)	-0.001 (0.001)	-0.004* (0.002)	-0.008** (0.003)	-0.009** (0.003)	-0.011* (0.005)
<b>Observations</b>	501	500	499	498	497	493
<b>R2</b>	0.665	0.740	0.844	0.868	0.875	0.926
<b>Adjusted R2</b>	0.661	0.737	0.842	0.866	0.873	0.925
<b>F Statistics</b>	163.339*** (df = 6; 494)	234.189*** (df = 6; 493)	444.814*** (df = 6; 492)	536.130*** (df = 6; 491)	571.334*** (df = 6; 490)	1,010.974*** (df = 6; 486)

**Note:** \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$

The results of the regression model (6) are shown in Table 10. The coefficients for change in exchange rate and change in S&P 500 are positive and statistically significant for all event windows. This indicates that when the change in exchange rate and change in S&P 500 increases, the change in stock prices tends to increase as well. The result for S&P 500 suggests a connection between U.S. equity markets and European stock performance. The lag of stock price changes has positive and statistically significant coefficients 2 days after the announcement and further, which means that past values of the STOXX index are assumed to be a predictor of the future values and the relationship becomes stronger as the event window lengthens. The TIGHTENING, LOOSENING and change in Euribor variables have no effect on the dependent variable.

***Results of the effect of DIRECTION on the Volatility Index***

The results of the regression model (7) are shown in Table 11. Exchange rate and lag of volatility index have a positive and statistically significant effect on Volatility Index, suggesting that an increase in the exchange rate might be associated with an increase in volatility and that past levels of volatility are strongly predictive of current volatility.

**Table 11. Regression Results of DIRECTION on Changes in VSTOXX**

<b>Dependent Variable: VSTOXX</b>	
	<b>1 day</b>
<b>Tightening</b>	-0.009 (0.137)
<b>Loosening</b>	2.054 (1.158)
<b>Euribor</b>	-0.119 (0.164)
<b>Exchange Rate</b>	5.595* (2.610)
<b>S&amp;P 500</b>	-2.632** (0.820)
<b>Lagged VSTOXX</b>	0.853*** (0.050)
<b>Constant</b>	18.433*** (5.366)
<b>Observations</b>	502
<b>R2</b>	0.867
<b>Adjusted R2</b>	0.866
<b>F Statistics</b>	540.014***
	(df = 5; 495)

**Note:** \*p<0.05; \*\*p<0.01; \*\*\*p<0.001

The S&P 500 has statistically significant ( $p < 0.01$ ) negative coefficient. This indicates that increases in the S&P 500 index are associated with a decrease in European market volatility. TIGHTENING and LOOSENING announcements have no effect on market volatility, as well as Euribor.

### Country-Specific Drivers of European Market Indicators

This section describes country-specific drivers of European market indicators following the ANNOUNCEMENT. The sample for the results below consists of 7 countries in Europe (Czech Republic, France, Germany, Greece, Ireland, Spain, Sweden), and the UK. The results are assessed on a short-term (5-day) and a long-term (10-day) windows for bond yields and stock prices, while I assess the effect on market volatility within a day. I explain how country specific news impact European market indices (Government bond yields, stock prices and market volatility) and if there are countries that drive the overall European market indices.

#### *The effect on changes in 10-Y Euro Government Bond Yields*

**Table 12. Regression Results of Country ANNOUNCEMENT on Changes in European Yields for Each Country (short-term event window)**

Dependent Variable: $\Delta$ YIELD (5-day)								
	CZ	DE	ES	FR	GR	IE	SE	UK
<b>Announcement</b>	0.011 (0.020)	-0.020 (0.024)	0.040 (0.038)	-0.040** (0.015)	0.098*** (0.029)	0.026 (0.026)	0.034 (0.026)	0.008 (0.010)
<b>Change in Euribor</b>	-0.545*** (0.096)	-0.219 (0.447)	0.122** (0.040)	0.143 (0.448)	-0.171 (0.183)	-0.209 (0.110)	0.494*** (0.122)	0.147* (0.067)
<b>Change in Exchange Rate</b>	0.007 (0.004)	-0.001 (0.011)	-0.003 (0.003)	-0.002 (0.001)	0.014** (0.005)	-0.018 (0.011)	0.001 (0.002)	0.002 (0.002)
<b>Change in S&amp;P 500</b>	-0.065 (0.426)	1.151 (1.087)	0.642 (0.377)	-0.285 (0.356)	0.682 (0.601)	-0.448 (0.242)	-2.188 (1.675)	-0.004 (0.414)
<b>Lagged Change in Yield</b>	0.632*** (0.135)	-0.037 (0.556)	0.868*** (0.158)	1.278*** (0.131)	0.724*** (0.181)	1.033*** (0.033)	0.596** (0.220)	0.671*** (0.069)
<b>Constant</b>	-0.134* (0.063)	-0.075 (0.078)	-0.084 (0.080)	0.149*** (0.037)	-0.217*** (0.044)	-0.098 (0.076)	-0.025 (0.033)	-0.021 (0.035)
<b>Observations</b>	36	20	25	15	23	24	55	236
<b>R2</b>	0.614	0.369	0.696	0.873	0.744	0.883	0.753	0.677
<b>Adjusted R2</b>	0.550	0.144	0.616	0.802	0.669	0.850	0.727	0.670
<b>F Statistics</b>	9.559*** (df = 5; 30)	1.641 (df = 5; 14)	8.701*** (df = 5; 19)	12.352*** (df = 5; 9)	9.892*** (df = 5; 17)	27.070*** (df = 5; 18)	29.829*** (df = 5; 49)	96.516*** (df = 5; 230)

Note: \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$



**Table 13. Regression Results of Country ANNOUNCEMENT on Changes in European Yields for Each Country (long-term event window)**

Dependent Variable: $\Delta$ YIELD (10-day)								
	CZ	DE	ES	FR	GR	IE	SE	UK
<b>Announcement</b>	-0.011 (0.011)	-0.030* (0.015)	0.041 (0.021)	0.027** (0.009)	-0.027 (0.017)	0.041* (0.016)	0.015 (0.014)	0.001 (0.005)
<b>Change in Euribor</b>	-0.009 (0.037)	-0.754*** (0.076)	0.035 (0.047)	0.462** (0.173)	0.203 (0.123)	0.020 (0.042)	0.042 (0.075)	0.010 (0.048)
<b>Change in Exchange Rate</b>	-0.003 (0.002)	-0.005 (0.015)	0.002 (0.003)	-0.002 (0.004)	-0.003 (0.009)	0.003 (0.006)	-0.018 (0.011)	-0.002 (0.002)
<b>Change in S&amp;P 500</b>	0.239 (0.294)	0.008 (0.115)	0.187 (0.184)	-0.044 (0.309)	0.761 (0.464)	0.065 (0.430)	-0.248 (0.395)	0.197 (0.301)
<b>Lagged Change in Yield</b>	0.967*** (0.058)	0.940*** (0.090)	0.705*** (0.061)	0.850*** (0.120)	0.925*** (0.089)	0.873*** (0.039)	0.846*** (0.128)	0.890*** (0.047)
<b>Constant</b>	0.098 (0.074)	0.062 (0.063)	-0.166 (0.100)	-0.112 (0.101)	0.074 (0.074)	-0.163* (0.068)	0.035 (0.073)	-0.023 (0.037)
<b>Observations</b>	36	20	25	15	23	24	55	231
<b>R2</b>	0.887	0.792	0.836	0.900	0.878	0.914	0.651	0.836
<b>Adjusted R2</b>	0.868	0.718	0.792	0.845	0.843	0.890	0.616	0.832
<b>F Statistics</b>	47.035*** (df = 5; 30)	10.667*** (df = 5; 14)	19.330*** (df = 5; 19)	16.289*** (df = 5; 9)	24.573*** (df = 5; 17)	38.319*** (df = 5; 18)	18.289*** (df = 5; 49)	229.355*** (df = 5; 225)

**Note:** \*p<0.05; \*\*p<0.01; \*\*\*p<0.001

The country results of the regression model (2) using European bond yields are shown in Table 12 and 13. Within the short-term event window announcements in France significantly decrease changes in bond yields ( $p < 0.01$ ), while there is an opposite effect in Greece, where announcements significantly increase changes in bond yields ( $p < 0.001$ ). The delayed effect shows statistically significant ( $p < 0.05$ ) negative effect of announcements in Germany on changes in bond yields, while the announcements in France and Ireland significantly increase changes in bond yields ( $p < 0.01$  and  $p < 0.05$  accordingly). Other countries show no significant response to announcements.

### ***The effect on changes in European stock prices***

The country results of the regression model (3) using European STOXX index are shown in Table 14 and 15. Within the short-term event window announcements in Ireland significantly decrease changes in European stock prices ( $p < 0.001$ ), while there is an opposite effect in Sweden, where announcements significantly increase changes

in European stock prices ( $p < 0.05$ ). The delayed effect shows statistically significant ( $p < 0.001$ ) negative effect of announcements in Ireland on changes in European stock prices. Other countries show no significant response to announcements.

**Table 14. Regression Results of Country ANNOUNCEMENT on Changes in STOXX for Each Country (short-term event window)**

Dependent Variable: $\Delta$ STOXX (5-day)								
	CZ	DE	ES	FR	GR	IE	SE	UK
<b>Announcement</b>	-0.004 (0.004)	-0.001 (0.004)	-0.007 (0.004)	-0.009 (0.013)	-0.006 (0.005)	-0.008*** (0.001)	0.003* (0.001)	0.001 (0.002)
<b>Change in Euribor</b>	0.032** (0.012)	-0.092 (0.090)	-0.013* (0.006)	0.333 (0.243)	0.070** (0.022)	0.043*** (0.007)	-0.027 (0.016)	-0.002 (0.012)
<b>Change in Exchange Rate</b>	0.001* (0.001)	0.002 (0.001)	0.001 (0.001)	0.001 (0.001)	0.004** (0.002)	0.002*** (0.0004)	0.001 (0.0004)	0.001* (0.0005)
<b>Change in S&amp;P 500</b>	0.613*** (0.059)	0.584*** (0.131)	0.574*** (0.153)	0.421 (0.402)	0.764** (0.256)	0.527*** (0.014)	0.482*** (0.066)	0.719*** (0.061)
<b>Lagged Change in STOXX</b>	0.298*** (0.076)	0.400** (0.126)	0.523*** (0.086)	0.850*** (0.205)	0.396 (0.215)	0.386*** (0.051)	0.446*** (0.095)	0.303*** (0.054)
<b>Constant</b>	-0.025* (0.011)	-0.002 (0.008)	0.006 (0.012)	0.029 (0.047)	0.007 (0.011)	0.017*** (0.004)	-0.005 (0.004)	-0.006 (0.005)
<b>Observations</b>	36	20	25	15	23	24	55	236
<b>R2</b>	0.898	0.888	0.896	0.946	0.924	0.936	0.847	0.911
<b>Adjusted R2</b>	0.881	0.849	0.869	0.917	0.902	0.918	0.832	0.919
<b>F Statistics</b>	52.697*** (df = 5; 30)	22.284*** (df = 5; 14)	32.753*** (df = 5; 19)	31.797*** (df = 5; 9)	41.376*** (df = 5; 17)	52.278*** (df = 5; 18)	54.312*** (df = 5; 49)	470.057*** (df = 5; 230)

**Note:** \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$

**Table 15. Regression Results of Country ANNOUNCEMENT on Changes in STOXX for Each Country (long-term event window)**

Dependent Variable: $\Delta$ STOXX (10-day)								
	CZ	DE	ES	FR	GR	IE	SE	UK
<b>Announcement</b>	-0.001 (0.003)	-0.002 (0.003)	-0.002 (0.002)	0.001 (0.005)	-0.002 (0.004)	-0.010*** (0.001)	0.001 (0.002)	0.001 (0.002)
<b>Change in Euribor</b>	0.011* (0.005)	-0.138 (0.122)	0.009*** (0.002)	0.128 (0.091)	-0.0003 (0.023)	0.021*** (0.003)	0.011 (0.006)	-0.0004 (0.011)
<b>Change in Exchange Rate</b>	0.001* (0.001)	-0.0002 (0.003)	0.001 (0.001)	0.001 (0.001)	0.004* (0.002)	0.001* (0.0005)	0.001** (0.0005)	0.001* (0.001)
<b>Change in S&amp;P 500</b>	0.589*** (0.046)	0.034 (0.136)	0.281*** (0.084)	0.359 (0.186)	-0.211 (0.259)	0.682*** (0.042)	0.612*** (0.083)	0.498*** (0.069)
<b>Lagged Change in STOXX</b>	0.387*** (0.042)	1.069*** (0.238)	0.759*** (0.090)	0.762*** (0.161)	1.126*** (0.226)	0.129** (0.043)	0.401*** (0.083)	0.451*** (0.069)
<b>Constant</b>	-0.029 (0.019)	-0.009 (0.016)	0.005 (0.014)	-0.009 (0.039)	0.005 (0.017)	0.036*** (0.006)	-0.008 (0.008)	-0.011 (0.008)
<b>Observations</b>	36	20	25	15	23	24	55	231
<b>R2</b>	0.929	0.977	0.953	0.979	0.892	0.976	0.833	0.889
<b>Adjusted R2</b>	0.917	0.969	0.940	0.967	0.860	0.969	0.816	0.886
<b>F Statistics</b>	78.564*** (df = 5; 30)	119.049*** (df = 5; 14)	76.448*** (df = 5; 19)	83.056*** (df = 5; 9)	28.006*** (df = 5; 17)	147.177*** (df = 5; 18)	48.853*** (df = 5; 49)	360.010*** (df = 5; 225)
<b>Note:</b>	*p<0.05; **p<0.01; ***p<0.001							

***The effect on European volatility index***

The country results of the regression model (4) using European VSTOXX index are shown in Table 16. There is a positive and statistically significant ( $p < 0.01$  and  $p < 0.05$  respectfully) effect of announcements in France in Ireland on overall market volatility in Europe. Other countries show no significant response to announcements.

**Table 16. Regression Results of ANNOUNCEMENT on VSTOXX for Each Country (1 day)**

Dependent Variable: VSTOXX								
	CZ	DE	ES	FR	GR	IE	SE	UK
<b>Announcement</b>	1.377 (1.739)	5.816 (3.673)	1.150 (1.102)	2.156** (0.659)	1.294 (1.526)	1.947* (0.864)	-0.567 (0.377)	-0.858 (0.455)
<b>Euribor</b>	-0.004 (0.353)	2.816*** (0.462)	-0.062 (0.272)	-2.539 (1.778)	-1.443 (1.825)	-1.513*** (0.232)	-0.260 (0.680)	1.790* (0.734)
<b>Exchange Rate</b>	-0.102 (0.348)	28.475 (17.757)	20.907*** (4.079)	22.509 (16.561)	-1.138 (13.460)	-12.707 (11.539)	0.566 (0.902)	17.280** (5.542)
<b>S&amp;P 500</b>	-1.475 (1.667)	-5.721 (4.466)	-4.387*** (1.089)	-4.487 (6.093)	-2.523 (2.404)	0.148 (2.326)	-1.113 (5.430)	-3.593 (1.917)
<b>Lagged VSTOXX</b>	0.585*** (0.022)	0.550** (0.176)	0.835*** (0.120)	1.053*** (0.080)	0.991*** (0.089)	0.895*** (0.097)	0.704*** (0.102)	0.707*** (0.061)
<b>Constant</b>	20.948 (10.702)	27.530 (24.292)	19.092* (8.638)	14.418 (35.871)	20.360 (19.529)	11.030 (12.830)	9.717 (36.289)	22.036 (15.688)
<b>Observations</b>	36	22	25	16	23	24	55	238
<b>R2</b>	0.725	0.827	0.836	0.949	0.849	0.887	0.661	0.803
<b>Adjusted R2</b>	0.680	0.773	0.793	0.924	0.804	0.856	0.627	0.799
<b>F Statistics</b>	15.849*** (df = 5; 30)	15.275*** (df = 5; 16)	19.361*** (df = 5; 19)	37.320*** (df = 5; 10)	19.092*** (df = 5; 17)	28.314*** (df = 5; 18)	19.137*** (df = 5; 49)	189.326*** (df = 5; 232)

Note: \*p<0.05; \*\*p<0.01; \*\*\*p<0.001

### Country-Specific Drivers of Local Bond Yields and Stock Market Performance

This section describes country by country results. The sample for the results below consists of the same 7 sampled countries in Europe (Czech Republic, France, Germany, Greece, Ireland, Spain, Sweden), and the UK. The results are assessed on a short-term (5-day) and a long-term (10-day) windows for bond yields and stock prices. First, I explain how ANNOUNCEMENT and other control variables impact changes in bond yields and changes in stock prices. Second, I explain how the DIRECTION (tightening and loosening announcements) impact changes in bond yields and stock prices. For the assessment I exploit country specific data (Government bond yields, stock prices, exchange rates), as using country-specific data benefits in adapting the analysis to the realities of each individual market, leading to more accurate and relevant findings. Additionally, I provide explanations for the effect of other control variables on dependent variables of interest.

#### *Results of the effect of ANNOUNCEMENT on changes in yield for Each Country*

### 5-day Event Window Results

The country results of the regression model (2) are shown in Table 17. ANNOUNCEMENT greatly influences changes in yields in Spain and France. ANNOUNCEMENT tends to increase changes in bond yields; however, they do not have much impact on other sampled countries. Factors like changes in the Euribor, exchange rates, S&P 500 index and past yield performance also contribute significantly to yield changes across different countries. For Greece and Ireland changes in Euribor have a negative effect on changes in bond yields. Exchange rate changes have different effect on changes in yields for France (negative effect), Greece (positive effect) and Spain (positive effect). Changes in S&P 500 index have a negative effect for France only. The lag of bond yield changes has a positive effect on changes in yields for Czech Republic, Germany, France, Ireland, and the UK.

**Table 17. Regression Results of ANNOUNCEMENT on Changes in Yield for Each Country (5-day Event Window)**

Dependent Variable: $\Delta$ YIELD (5-day)								
	CZ	DE	ES	FR	GR	IE	SE	UK
<b>Announcement</b>	0.001 (0.228)	-0.065 (0.113)	0.832* (0.334)	0.791* (0.351)	0.232 (1.772)	0.186 (0.293)	0.204 (0.217)	0.104 (0.222)
<b>Change in Euribor</b>	0.320 (0.593)	-1.180 (1.933)	-0.586 (1.099)	-9.695 (6.435)	-40.973** (13.656)	-1.414** (0.543)	0.013 (1.159)	0.452 (0.237)
<b>Change in Exchange Rate</b>	0.14 (0.017)	0.118 (0.122)	0.044* (0.022)	-0.115** (0.037)	1.055*** (0.309)	0.038 (0.035)	-0.002 (0.050)	-0.029 (0.025)
<b>Change in S&amp;P 500</b>	-0.891 (2.266)	9.906 (11.100)	12.852 (7.644)	-9.704*** (2.113)	44.990 (26.763)	-0.696 (1.839)	-3.509 (2.603)	0.933 (1.686)
<b>Lagged Change in Yield</b>	0.397** (0.149)	0.532*** (0.109)	0.466 (0.398)	1.060*** (0.082)	0.090 (0.105)	0.773*** (0.233)	0.044 (0.144)	0.294* (0.136)
<b>Constant</b>	0.427 (0.503)	-0.837** (0.272)	-1.514* (0.605)	-3.012* (1.409)	7.924 (4.891)	-0.541 (0.427)	-0.730 (0.803)	-0.722 (0.706)
<b>Observations</b>	36	20	25	15	23	24	55	236
<b>R2</b>	0.234	0.619	0.539	0.732	0.490	0.515	0.041	0.118
<b>Adjusted R2</b>	0.106	0.482	0.418	0.583	0.339	0.380	-0.056	0.099
<b>F Statistics</b>	1.832 (df = 5; 30)	4.540* (df = 5; 14)	4.442** (df = 5; 19)	4.910* (df = 5; 9)	3.261* (df = 5; 17)	3.821* (df = 5; 18)	0.423 (df = 5; 49)	6.177*** (df = 5; 230)

Note: \*p<0.05; \*\*p<0.01; \*\*\*p<0.001

### 10-day Event Window Results

The country results of the regression model (2) are shown in Table 18. There is a delayed effect of ANNOUNCEMENT, which influences changes in yields in Spain and Ireland. ANNOUNCEMENT tends to increase changes in yields; however, they do not have the impact on other sampled countries. Factors like changes in Euribor, S&P 500 index and past yield performance also contribute significantly to yield changes across different countries. For France changes in Euribor have a negative effect on changes in bond yields, while they have a positive effect on changes in yields for Czech Republic. The effect on changes in S&P 500 index is negative for France only. The lag of yield changes has a positive effect on changes in yields for Czech Republic, Spain, France, Greece, Ireland, and the UK. Changes in the exchange rate have no effect on changes in bond yields for all sampled countries.

**Table 18. Regression Results of ANNOUNCEMENT on Changes in Yield for Each Country (10-day Event Window)**

Dependent Variable: $\Delta$ YIELD (10-day)								
	CZ	DE	ES	FR	GR	IE	SE	UK
<b>Announcement</b>	0.022 (0.108)	-0.061 (0.053)	1.047* (0.509)	-0.059 (0.094)	1.191 (1.044)	0.266* (0.117)	0.085 (0.071)	0.086 (0.148)
<b>Change in Euribor</b>	0.436*** (0.107)	-0.337 (0.235)	-0.632 (0.668)	-3.135*** (0.886)	-23.907 (18.859)	0.130 (0.170)	-0.205 (0.153)	0.640 (0.448)
<b>Change in Exchange Rate</b>	0.018 (0.010)	-0.030 (0.040)	0.009 (0.046)	-0.005 (0.021)	0.523 (0.521)	0.016 (0.019)	0.004 (0.019)	-0.029 (0.025)
<b>Change in S&amp;P 500</b>	0.135 (0.698)	0.502 (0.529)	5.547 (9.338)	-3.213*** (0.865)	-7.699 (20.778)	0.253 (2.031)	0.019 (4.348)	1.613 (1.801)
<b>Lagged Change in Yield</b>	0.586*** (0.171)	0.074 (0.043)	0.673** (0.234)	1.175*** (0.126)	0.226* (0.104)	0.450* (0.179)	0.064 (0.173)	0.344** (0.116)
<b>Constant</b>	0.264 (0.584)	-0.546* (0.246)	-5.545 (3.515)	-0.457 (0.469)	4.807 (4.664)	-1.370*** (0.390)	-0.852 (0.534)	-1.001 (0.827)
<b>Observations</b>	36	20	25	15	23	24	55	231
<b>R2</b>	0.436	0.323	0.549	0.856	0.284	0.384	0.017	0.175
<b>Adjusted R2</b>	0.343	0.081	0.430	0.775	0.074	0.213	-0.084	0.157
<b>F Statistics</b>	4.647** (df = 5; 30)	1.336 (df = 5; 14)	4.623** (df = 5; 19)	10.671** (df = 5; 9)	1.350 (df = 5; 17)	2.248 (df = 5; 18)	0.165 (df = 5; 49)	9.554*** (df = 5; 225)

Note: \*p<0.05; \*\*p<0.01; \*\*\*p<0.001

### *Results of the effect of ANNOUNCEMENT on changes in Stock Prices for Each Country*

#### *5-day Event Window Results*

The country results of the regression model (3) are shown in Table 19. Immediate effect of the ANNOUNCEMENT influences changes in stock prices in Sweden in a negative way. For other sampled countries there is no effect. Factors like changes in exchange rates, S&P 500 index and past stock price changes also contribute significantly to stock price changes across different countries. Exchange rate changes have negative effect on changes in stock prices for almost all sampled countries except for Greece. The effect on changes in S&P 500 index is positive for Ireland, while there is a negative effect for Germany. The lag of changes in prices has a positive effect on changes in stock prices for Czech Republic and the UK. Changes in Euribor have no effect on changes in stock prices for all sampled countries.

**Table 19. Regression Results of ANNOUNCEMENT on Changes in Stock Prices for Each Country (5-day Event Window)**

Dependent Variable: $\Delta$ Stock Prices (5-day)								
	CZ	DE	ES	FR	GR	IE	SE	UK
<b>Announcement</b>	0.172 (0.102)	-0.196 (0.122)	-0.014 (0.135)	-0.047 (0.229)	0.279 (0.254)	0.086 (0.067)	-0.297** (0.107)	-0.059 (0.040)
<b>Change in Euribor</b>	-0.301 (0.332)	-0.078 (1.509)	-0.042 (0.734)	-0.429 (2.581)	1.212 (2.258)	-0.224 (0.128)	0.585 (0.447)	0.092 (0.059)
<b>Change in Exchange Rate</b>	-0.103*** (0.011)	-0.380*** (0.074)	-0.119*** (0.016)	-0.089*** (0.012)	-0.035 (0.091)	-0.155*** (0.007)	-0.172*** (0.031)	-0.167*** (0.021)
<b>Change in S&amp;P 500</b>	-0.303 (1.767)	-13.454*** (3.351)	2.300 (1.449)	-0.865 (1.790)	5.229 (6.869)	4.396*** (0.834)	-1.356 (1.167)	0.244 (0.468)
<b>Lagged Change in Stock Prices</b>	0.171* (0.084)	-0.013 (0.100)	0.108 (0.087)	-0.005 (0.070)	-0.191 (0.120)	-0.067 (0.049)	-0.137 (0.070)	0.074* (0.037)
<b>Constant</b>	0.081 (0.381)	1.057*** (0.153)	0.155 (0.372)	-0.446 (0.587)	-1.503* (0.670)	-0.849*** (0.175)	-0.941** (0.292)	0.521*** (0.120)
<b>Observations</b>	36	20	25	15	23	24	55	236
<b>R2</b>	0.623	0.873	0.501	0.436	0.348	0.698	0.583	0.547
<b>Adjusted R2</b>	0.560	0.828	0.370	0.123	0.156	0.614	0.541	0.537
<b>F Statistics</b>	9.926*** (df = 5; 30)	19.334*** (df = 5; 14)	3.815* (df = 5; 19)	1.393 (df = 5; 9)	1.813 (df = 5; 17)	8.312*** (df = 5; 18)	13.707*** (df = 5; 49)	55.564*** (df = 5; 230)

Note: \*p<0.05; \*\*p<0.01; \*\*\*p<0.001

### *10-day Event Window Results*

The country results of the regression model (3) are shown in Table 20. Delayed effect of the ANNOUNCEMENT influences changes in stock prices in Germany, France, and Greece, although the effect on dependent variable is different.

ANNOUNCEMENT tends to increase changes in stock prices for Greece, while for the Germany and France the effect is negative. Factors like changes in Euribor, exchange rates and S&P 500 index and lag of changes in stock prices also contribute significantly to stock price changes across different countries. Changes in Euribor have positive and statistically significant effect on changes in stock prices in Spain, Ireland, Sweden, while they have a negative effect on dependent variable in Germany. Exchange rate changes have a negative effect on changes in stock prices for all sampled countries. The effect of changes in S&P 500 index on stock prices is positive for Czech Republic, Germany, and France. The lag of changes in stock prices has a positive effect on changes in stock prices for the UK only.

**Table 20. Regression Results of ANNOUNCEMENT on Changes in Stock Prices for Each Country (10-day Event Window)**

Dependent Variable: $\Delta$ Stock Prices (10-day)								
	CZ	DE	ES	FR	GR	IE	SE	UK
<b>Announcement</b>	0.050 (0.102)	-0.129* (0.055)	-0.143 (0.084)	-0.164*** (0.037)	0.323* (0.152)	-0.005 (0.019)	-0.053 (0.051)	-0.048 (0.038)
<b>Change in Euribor</b>	-0.067 (0.102)	-0.466** (0.179)	0.407* (0.171)	1.450 (1.068)	-0.094 (2.340)	0.160** (0.059)	0.286*** (0.077)	0.047 (0.062)
<b>Change in Exchange Rate</b>	-0.097*** (0.017)	-0.402*** (0.059)	-0.083** (0.031)	-0.115*** (0.015)	-0.622*** (0.085)	-0.127*** (0.015)	-0.136*** (0.011)	-0.178*** (0.032)
<b>Change in S&amp;P 500</b>	1.497** (0.544)	3.285*** (0.370)	-0.133 (0.784)	3.420*** (0.433)	6.467 (8.322)	-0.944 (0.545)	1.034 (1.235)	-0.141 (0.546)
<b>Lagged Change in Stock Prices</b>	0.182 (0.114)	-0.042 (0.065)	-0.011 (0.192)	0.071 (0.122)	0.125 (0.134)	0.098 (0.101)	-0.003 (0.047)	0.095* (0.044)
<b>Constant</b>	0.073 (0.657)	1.030*** (0.302)	1.433*** (0.284)	-0.473 (0.349)	-2.467*** (0.567)	-0.704*** (0.125)	-2.047*** (0.361)	0.658** (0.214)
<b>Observations</b>	36	20	25	15	23	24	55	231
<b>R2</b>	0.635	0.858	0.528	0.841	0.868	0.806	0.636	0.508
<b>Adjusted R2</b>	0.575	0.807	0.404	0.753	0.829	0.752	0.599	0.497
<b>F Statistics</b>	10.458*** (df = 5; 30)	16.916*** (df = 5; 14)	4.258** (df = 5; 19)	9.549** (df = 5; 9)	22.271*** (df = 5; 17)	14.950*** (df = 5; 18)	17.106*** (df = 5; 49)	46.458*** (df = 5; 225)

Note: \*p<0.05; \*\*p<0.01; \*\*\*p<0.001

### *Results of the effect of DIRECTION on changes in yield for Each Country*

#### *5-day Event Window Results*

The country results of the regression model (5) are shown in Table 21. The immediate effect of TIGHTENING announcement positively influences changes in



yields in Spain and France. And the immediate effect of LOOSENING announcement has different effect on changes in yield. For France it tends to increase the change in bond yields, while for the UK it tends to decrease the change in bond yields. Factors like changes in Euribor, exchange rates, S&P 500 index and past yield performance also contribute significantly to bond yield changes across different countries. For France, Greece and Ireland changes in Euribor have a negative effect on changes in yields, and for the UK changes in Euribor have a positive effect. Exchange rate changes have different effect on changes in yields for France (negative effect) and Greece (positive effect). The effect of changes in S&P 500 index on changes in yields is positive for Greece, while there is a negative effect for France. The lag of yield changes has a positive effect on changes in yields for Czech Republic, Germany, France, Ireland, and the UK.

**Table 21. Regression Results of DIRECTION on Changes in Yield for Each Country (5-day Event Window)**

Dependent Variable: $\Delta$ YIELD (5-day)								
	CZ	DE	ES	FR	GR	IE	SE	UK
<b>Tightening</b>	-0.002 (0.249)	-0.146 (0.096)	0.828* (0.336)	0.683* (0.316)	1.588 (2.543)	0.191 (0.301)	0.214 (0.268)	0.211 (0.230)
<b>Loosening</b>	0.103 (0.267)	2.487 (1.841)	0.490 (0.338)	1.643* (0.687)	-3.188 (2.537)	0.550 (0.492)	0.042 (0.369)	-1.409* (0.666)
<b>Change in Euribor</b>	0.348 (0.542)	0.148 (1.875)	-0.662 (1.146)	-9.847** (3.779)	-47.854** (18.221)	-1.434** (0.547)	-0.095 (2.604)	0.471* (0.221)
<b>Change in Exchange Rate</b>	0.011 (0.019)	0.071 (0.050)	0.050 (0.032)	-0.102*** (0.017)	1.069** (0.349)	0.035 (0.037)	0.0005 (0.091)	-0.018 (0.020)
<b>Change in S&amp;P 500</b>	-0.755 (1.935)	7.710 (4.745)	12.155 (7.178)	-6.448*** (1.342)	58.353* (26.151)	-0.472 (1.513)	-4.064 (3.288)	0.852 (1.564)
<b>Lagged Change in Yield</b>	0.391* (0.175)	0.632*** (0.109)	0.483 (0.364)	1.017*** (0.079)	0.144 (0.078)	0.759*** (0.212)	0.047 (0.149)	0.260* (0.110)
<b>Constant</b>	0.440 (0.501)	-0.833** (0.262)	-1.384* (0.556)	-3.179** (1.208)	7.031 (5.122)	-0.599 (0.486)	-0.695 (1.294)	-0.635 (0.626)
<b>Observations</b>		20	25	15	23	24	55	236
<b>R2</b>	0.237	0.730	0.542	0.749	0.506	0.520	0.041	0.146
<b>Adjusted R2</b>	0.079	0.606	0.389	0.560	0.320	0.350	-0.079	0.123
<b>F Statistics</b>	1.503 (df = 6; 29)	5.867** (df = 6; 13)	3.549* (df = 6; 18)	3.972* (df = 6; 8)	2.728 (df = 6; 16)	3.067* (df = 6; 17)	0.338 (df = 6; 48)	6.508*** (df = 6; 229)

Note: \*p<0.05; \*\*p<0.01; \*\*\*p<0.001

### *10-day Event Window Results*

The country results of the regression model (5) are shown in Table 22. The delayed effect of TIGHTENING announcement positively influences changes in yields in Spain and Ireland. And the delayed effect of LOOSENING announcement has different effects on changes in yields. For Germany it tends to increase the change in yields, while for the UK it tends to decrease the change in yields. Factors like changes in Euribor, S&P 500 index and past yield performance also contribute significantly to yield changes across different countries. For Czech Republic changes in Euribor have a positive effect on changes in yields. The effect of changes in S&P 500 index on changes in bond yields is negative for France only. The lag of yield changes has a positive effect on changes in yields for almost all sampled countries except for Sweden. Changes in exchange rate have zero effect on changes in bond yields for all sampled countries.

**Table 22. Regression Results of DIRECTION on Changes in Yield for Each Country (10-day Event Window)**

Dependent Variable: $\Delta$ YIELD (10-day)								
	CZ	DE	ES	FR	GR	IE	SE	UK
<b>Tightening</b>	0.023 (0.102)	-0.061 (0.048)	0.986* (0.412)	0.007 (0.234)	1.088 (1.078)	0.268* (0.117)	0.089 (0.071)	0.120 (0.158)
<b>Loosening</b>	0.112 (0.218)	0.579*** (0.133)	0.561 (0.800)	0.239 (0.965)	2.071 (1.826)	0.351 (0.504)	0.011 (0.269)	-1.187* (0.597)
<b>Change in Euribor</b>	0.447*** (0.113)	-0.093 (0.199)	-0.574 (0.500)	-3.824 (2.021)	-23.952 (20.708)	0.124 (0.184)	-0.229 (0.121)	0.594 (0.378)
<b>Change in Exchange Rate</b>	0.014 (0.013)	-0.041 (0.030)	0.009 (0.041)	-0.014 (0.044)	0.344 (0.673)	0.015 (0.019)	0.005 (0.018)	-0.027 (0.028)
<b>Change in S&amp;P 500</b>	0.110 (0.692)	-0.296 (0.374)	5.560 (6.951)	-3.096** (1.072)	-8.758 (16.117)	0.202 (2.240)	0.034 (4.468)	0.776 (1.932)
<b>Lagged Change in Yield</b>	0.573*** (0.143)	0.100*** (0.020)	0.591** (0.181)	1.138*** (0.185)	0.213* (0.108)	0.435* (0.221)	0.066 (0.175)	0.314** (0.117)
<b>Constant</b>	0.259 (0.566)	-0.591** (0.222)	-5.069 (2.732)	-0.932 (1.536)	4.352 (6.158)	-1.410** (0.457)	-0.823 (0.485)	-0.621 (0.985)
<b>Observations</b>	36	20	25	15	23	24	55	231
<b>R2</b>	0.441	0.500	0.557	0.857	0.288	0.385	0.018	0.216
<b>Adjusted R2</b>	0.325	0.269	0.410	0.750	0.021	0.169	-0.104	0.195
<b>F Statistics</b>	3.813** (df = 6; 29)	2.164 (df = 6; 13)	3.774* (df = 6; 18)	8.017** (df = 6; 8)	1.079 (df = 6; 16)	1.777 (df = 6; 17)	0.149 (df = 6; 48)	10.283*** (df = 6; 224)

Note: \*p<0.05; \*\*p<0.01; \*\*\*p<0.001

***Results of the effect of DIRECTION on changes in Stock Prices for Each Country***

### 5-day Event Window Results

The country results of the regression model (6) are shown in Table 23. The immediate effect of TIGHTENING and LOOSENING announcements negatively influences changes in stock prices in Sweden. Factors like changes in exchange rates, S&P 500 index and past stock prices also contribute significantly to stock price changes across different countries. Exchange rate changes have a negative effect on changes in stock prices for almost all sampled countries except for Greece. The effect of changes in S&P 500 index on changes in stock prices is positive for Greece and Ireland, while there is a negative effect for Germany. The lag of stock price changes has a different effect on changes in stock prices, for Czech Republic and the UK the effect is positive, while for Ireland and Sweden the effect is negative. Changes in Euribor have no effect on changes in stock prices for all sampled countries.

**Table 23. Regression Results of DIRECTION on Changes in Stock Prices for Each Country (5-day Event Window)**

Dependent Variable: $\Delta$ Stock Prices (5-day)								
	CZ	DE	ES	FR	GR	IE	SE	UK
<b>Tightening</b>	0.172 (0.105)	-0.189 (0.117)	-0.013 (0.130)	0.055 (0.166)	0.515 (0.362)	0.073 (0.070)	-0.241* (0.100)	-0.065 (0.040)
<b>Loosening</b>	0.264 (0.267)	-0.330 (0.399)	-0.431 (0.318)	0.113 (0.474)	-0.666 (0.379)	-0.219 (0.311)	-0.565*** (0.170)	-0.080 (0.102)
<b>Change in Euribor</b>	-0.282 (0.355)	-0.138 (1.064)	-0.144 (0.856)	-1.685 (2.330)	-0.472 (2.933)	-0.201 (0.129)	0.369 (0.511)	0.091 (0.059)
<b>Change in Exchange Rate</b>	-0.105*** (0.009)	-0.377*** (0.097)	-0.114*** (0.019)	-0.091*** (0.010)	-0.011 (0.075)	-0.112*** (0.006)	-0.169*** (0.030)	-0.167*** (0.022)
<b>Change in S&amp;P 500</b>	-0.202 (1.924)	-13.370*** (3.683)	1.661 (1.422)	-1.408 (1.266)	9.533* (3.962)	4.076*** (0.621)	-2.467 (1.621)	0.246 (0.468)
<b>Lagged Change in Stock Prices</b>	0.184* (0.086)	-0.006 (0.138)	0.091 (0.092)	0.004 (0.062)	-0.301 (0.191)	-0.049* (0.020)	-0.152* (0.068)	0.074* (0.037)
<b>Constant</b>	0.087 (0.367)	1.060*** (0.116)	0.290 (0.336)	-0.720 (0.560)	-1.542* (0.738)	-0.783*** (0.199)	-0.978*** (0.223)	0.512*** (0.121)
<b>Observations</b>		20	25	15	23	24	55	236
<b>R2</b>	0.625	0.874	0.516	0.438	0.381	0.707	0.593	0.547
<b>Adjusted R2</b>	0.547	0.816	0.355	0.016	0.149	0.603	0.542	0.535
<b>F Statistics</b>	8.047*** (df = 6; 29)	15.063*** (df = 6; 13)	3.204* (df = 6; 18)	1.038 (df = 6; 8)	1.643 (df = 6; 16)	6.829*** (df = 6; 17)	11.667*** (df = 6; 48)	46.030*** (df = 6; 229)

Note: \*p<0.05; \*\*p<0.01; \*\*\*p<0.001

### 10-day Event Window Results

The country results of the regression model (6) are shown in Table 24. The delayed effect of TIGHTENING announcement positively influences changes in stock prices in Greece, while it has a negative effect for Germany and France. And the delayed effect of LOOSENING announcement has a negative effect on changes in stock prices for France, while there is a positive effect for Germany. Factors like changes in Euribor, exchange rates, S&P 500 index and past stock prices also contribute significantly to stock changes across different countries.

**Table 24. Regression Results of DIRECTION on Changes in Stock Prices for Each Country (10-day Event Window)**

Dependent Variable: $\Delta$ Stock Prices (10-day)								
	CZ	DE	ES	FR	GR	IE	SE	UK
<b>Tightening</b>	0.043 (0.094)	-0.132* (0.053)	-0.080 (0.079)	-0.198*** (0.029)	0.352** (0.051)	-0.004 (0.019)	-0.048 (0.051)	-0.46 (0.037)
<b>Loosening</b>	-0.263 (0.297)	0.318* (0.133)	0.301 (0.202)	-0.653*** (0.161)	-0.178 (0.102)	0.047 (0.189)	-0.026 (0.070)	-0.101 (0.089)
<b>Change in Euribor</b>	-0.117 (0.121)	-0.335** (0.128)	0.348* (0.150)	1.384* (0.688)	0.054 (0.324)	0.147 (0.077)	0.288*** (0.083)	0.044 (0.064)
<b>Change in Exchange Rate</b>	-0.086*** (0.020)	-0.415*** (0.054)	-0.089* (0.045)	-0.103*** (0.007)	-0.567*** (0.042)	-0.128*** (0.016)	-0.136*** (0.012)	-0.178*** (0.032)
<b>Change in S&amp;P 500</b>	1.589* (0.690)	2.842*** (0.250)	0.052 (0.540)	3.055*** (0.330)	7.742*** (0.901)	-0.983* (0.498)	1.040 (1.229)	-0.171 (0.550)
<b>Lagged Change in Stock Prices</b>	0.125 (0.089)	-0.033 (0.084)	-0.096 (0.245)	-0.042 (0.071)	0.011 (0.050)	0.094 (0.113)	0.003 (0.049)	0.094* (0.044)
<b>Constant</b>	0.146 (0.651)	0.970*** (0.221)	0.981*** (0.220)	-0.072 (0.258)	-2.193*** (0.230)	-0.729*** (0.160)	-2.087*** (0.360)	0.669** (0.214)
<b>Observations</b>		20	25	15	23	24	55	231
<b>R2</b>	36	0.875	0.573	0.871	0.903	0.807	0.634	0.509
<b>Adjusted R2</b>	0.666	0.817	0.431	0.774	0.867	0.738	0.589	0.496
<b>F Statistics</b>	9.630*** (df = 6; 29)	15.144*** (df = 6; 13)	4.026** (df = 6; 18)	9.013** (df = 6; 8)	24.905*** (df = 6; 16)	11.811*** (df = 6; 17)	13.887*** (df = 6; 48)	38.660*** (df = 6; 224)

Note: \*p<0.05; \*\*p<0.01; \*\*\*p<0.001

For Germany changes in Euribor have a negative effect on changes in stock prices, while they have a positive effect in Spain, France, and Sweden. Exchange rate changes have a negative effect for all sampled countries. The effect of changes in S&P 500 index on changes in stock prices is positive for Czech Republic, Germany, France

and Greece, while there is a negative effect for Ireland. The lag of stock price changes has a positive effect on changes in stock prices for the UK only.

### **Results of the robustness check**

This section describes the pan-European results of the robustness check of regression models (2-7) by conducting the assessment of a single effect of DIRECTION variable. First, I explain the results of TIGHTENING announcements on changes in bond yields and stock prices for a short term (1-5 day) and long-term (10-day) event windows. Second, I present pan-European results of LOOSENING announcements on changes in bond yields and stock prices for a short term (1-5 day) and long-term (10-day) event windows. Lastly, I outline pan-European results of TIGHTENING and LOOSENING announcements on Volatility Index within 1 day. Additionally, I provide explanations for the effect of other control variables on dependent variables of interest.

#### ***Results of the effect of TIGHTENING on changes in yield for short-term and long-term event windows***

The results of the regression model (5) are shown in Table 25. The coefficient for TIGHTENING announcement is positive and statistically significant ( $p < 0.05$ ) for the 2-day period, suggesting that tightening announcement may lead to a slight increase in bond yield changes, particularly observable in the 2-day window. The Euribor rate changes have a positive and statistically significant impact on the change in yields across all windows except for 4-day and 10-day event windows, suggesting a strong relationship where increases in the Euribor rate changes are associated with increases in yield changes. The exchange rate changes have a positive and statistically significant coefficient for 1-day window. This indicates a potential immediate impact on bond yield changes following an increase in the exchange rate changes, which does not seem to persist in the longer term. The lag of yield change has a negative and statistically significant coefficient for the 1-day window, indicating a slight reversal effect on the yield changes. For the 3-day, 4-day, 5-day, and 10-day windows, the lag of changes in yield becomes positive and highly significant, suggesting that past yield changes have a persistent and growing impact on future yield changes. There is no effect of changes in S&P 500 on bond yield changes.

**Table 25. Regression Results of TIGHTENING on Changes in Yield (short-term window)**

Dependent Variable: $\Delta$ YIELD						
	1-day	2-day	3-day	4-day	5-day	10-day
<b>Tightening</b>	0.015 (0.010)	0.020* (0.009)	0.101 (0.009)	0.015 (0.009)	0.006 (0.005)	0.0003 (0.004)
<b>Change in Euribor</b>	0.336*** (0.071)	0.298*** (0.056)	0.285*** (0.058)	0.038 (0.041)	0.081* (0.037)	0.014 (0.035)
<b>Change in Exchange Rate</b>	2.144* (0.940)	0.915 (0.739)	0.414 (0.485)	0.387 (0.588)	0.134 (0.316)	0.049 (0.252)
<b>Change in S&amp;P 500</b>	0.204 (0.557)	0.460 (0.476)	0.178 (0.334)	0.312 (0.433)	0.065 (0.237)	0.123 (0.103)
<b>Lagged Change in Yield</b>	-0.181* (0.083)	0.307 (0.221)	0.450*** (0.109)	0.676*** (0.102)	0.711*** (0.073)	0.842*** (0.066)
<b>Constant</b>	-0.007 (0.006)	-0.020* (0.009)	-0.018 (0.011)	-0.031 (0.018)	-0.015 (0.012)	-0.001 (0.017)
<b>Observations</b>	501	500	499	498	497	493
<b>R2</b>	0.389	0.407	0.459	0.544	0.594	0.782
<b>Adjusted R2</b>	0.383	0.401	0.453	0.539	0.590	0.780
<b>F Statistics</b>	62.998*** (df = 5; 495)	67.809*** (df = 5; 494)	83.644*** (df = 5; 493)	117.302*** (df = 5; 492)	143.580*** (df = 5; 491)	349.000*** (df = 5; 487)

**Note:** \*p<0.05; \*\*p<0.01; \*\*\*p<0.001

***Results of the effect of TIGHTENING on changes in STOXX for short-term and long-term event windows***

The results of the regression model (6) are shown in Table 26. The coefficients for TIGHTENING announcements do not have a consistent or significant impact on the STOXX index changes in the short term. The same applies to changes in Euribor. The change in exchange rate has a positive and statistically significant impact on the STOXX index change in all windows, with significance at the 0.001 level for the 1-day, 2-day, 4-day and 5-day windows and at the 0.01 level for the 3-day window. This indicates that an increase in the exchange rate change is associated with a substantial increase in the changes of stock prices. The change in the S&P 500 has a positive and statistically significant effect across all event windows at the 0.001 level. This suggests a strong positive relationship between changes in the S&P 500 and the changes in stock

prices, indicating when the change S&P 500 rises, the change of stock prices tends to increase as well. The lag of STOXX index change has positive and statistically significant coefficients from the 2-day to the 10-day windows, meaning that past performance of the STOXX index is predictive of its future performance, and this relationship becomes stronger as the window extends.

**Table 26. Regression Results of TIGHTENING on Changes in STOXX (short-term window)**

<b>Dependent Variable: ΔSTOXX</b>						
	<b>1-day</b>	<b>2-day</b>	<b>3-day</b>	<b>4-day</b>	<b>5-day</b>	<b>10-day</b>
<b>Tightening</b>	-0.001 (0.001)	0.0004 (0.001)	0.001 (0.001)	0.002 (0.001)	0.002 (0.001)	0.001 (0.001)
<b>Change in Euribor</b>	-0.014 (0.010)	-0.012 (0.011)	-0.004 (0.006)	-0.024 (0.018)	-0.005 (0.008)	0.002 (0.007)
<b>Change in Exchange Rate</b>	0.410*** (0.058)	0.315*** (0.062)	0.256** (0.088)	0.322*** (0.055)	0.376*** (0.050)	0.219** (0.073)
<b>Change in S&amp;P 500</b>	0.864*** (0.081)	0.795*** (0.076)	0.739*** (0.040)	0.740*** (0.063)	0.710*** (0.063)	0.512*** (0.056)
<b>Lagged Change in STOXX</b>	-0.024 (0.084)	0.192* (0.095)	0.318*** (0.032)	0.342*** (0.038)	0.326*** (0.059)	0.502*** (0.049)
<b>Constant</b>	-0.001 (0.001)	-0.002 (0.001)	-0.004* (0.002)	-0.007* (0.003)	-0.008* (0.003)	-0.009 (0.005)
<b>Observations</b>	501	500	499	498	497	493
<b>R2</b>	0.657	0.738	0.844	0.867	0.874	0.925
<b>Adjusted R2</b>	0.654	0.735	0.843	0.866	0.873	0.925
<b>F Statistics</b>	189.620*** (df = 5; 495)	278.080*** (df = 5; 494)	534.778*** (df = 5; 493)	641.379*** (df = 5; 492)	683.583*** (df = 5; 491)	1,208.531*** (df = 5; 487)

**Note:** \*p<0.05; \*\*p<0.01; \*\*\*p<0.001

***Results of the effect of LOOSENING on changes in yield for short-term and long-term event windows***

The results of the regression model (5) are shown in Table 27. The coefficient for LOOSENING announcements is positive and statistically significant ( $p < 0.05$ ) for 3-day, 4-day and 5-day windows. This suggests that loosening announcements are associated with an increase in yield changes, with effects becoming more pronounced over a slightly longer term. The coefficients for Euribor changes are positive and

statistically significant ( $p < 0.001$ ) for the 1-day, 2-day, 3-day and 5-day windows, suggesting a robust relationship where increases in the Euribor changes are associated with increases in bond yield changes. The coefficients for exchange rate changes are positive and statistically significant only for 1-day window. The lag of yield changes has a negative coefficient for the 1-day window and is significant at the 5% level, which could suggest a slight reversal effect the following day. For the 3-day, 4-day, 5-day, and 10-day windows, the lag of yield changes becomes positive and highly significant, showing that previous changes in yields have a strong predictive power for future changes in yields over these periods.

**Table 27. Regression Results of LOOSENING on Changes in Yield (short-term window)**

Dependent Variable: $\Delta YIELD$						
	1-day	2-day	3-day	4-day	5-day	10-day
<b>Loosening</b>	0.053 (0.054)	0.048 (0.040)	0.072* (0.035)	0.065* (0.028)	0.061* (0.026)	0.030 (0.016)
<b>Change in Euribor</b>	0.332*** (0.059)	0.298*** (0.051)	0.282*** (0.055)	0.043 (0.037)	0.084* (0.036)	0.018 (0.030)
<b>Change in Exchange Rate</b>	2.146* (1.016)	0.876 (0.763)	0.402 (0.472)	0.349 (0.637)	0.103 (0.325)	0.031 (0.235)
<b>Change in S&amp;P 500</b>	0.216 (0.642)	0.457 (0.496)	0.207 (0.326)	0.352 (0.473)	0.105 (0.227)	0.148 (0.100)
<b>Lagged Change in Yield</b>	-0.182* (0.083)	0.305 (0.218)	0.449*** (0.100)	0.673*** (0.078)	0.703*** (0.076)	0.835*** (0.059)
<b>Constant</b>	-0.003 (0.006)	-0.007 (0.007)	-0.015 (0.009)	-0.016 (0.009)	-0.014 (0.009)	-0.011 (0.008)
<b>Observations</b>	501	500	499	498	497	493
<b>R2</b>	0.391	0.406	0.470	0.551	0.605	0.785
<b>Adjusted R2</b>	0.384	0.400	0.464	0.546	0.601	0.783
<b>F Statistics</b>	63.455*** (df = 5; 495)	67.591*** (df = 5; 494)	87.383*** (df = 5; 493)	120.690*** (df = 5; 492)	150.229*** (df = 5; 491)	355.178*** (df = 5; 487)

**Note:** \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$

***Results of the effect of LOOSENING on changes in STOXX for a short-term event window***



The results of the regression model (6) are shown in Table 28. The coefficient for LOOSENING announcements has no effect on changes in stock prices. There is also no effect of changes in Euribor on changes in stock prices. The coefficients for exchange rate changes are positive and highly significant. This indicates a robust relationship, where an increase in the exchange rate change is associated with an increase in the STOXX index change. The S&P 500 shows a positive and statistically significant effect across all event windows. This demonstrates a consistent and positive correlation between the S&P 500's performance and the STOXX index, suggesting that when the S&P 500 index change rises, the STOXX index change tends to increase as well. The lag of STOXX index change has positive coefficients from the 2-day window onwards. This indicates a momentum effect, where past performance of the STOXX index is predictive of its future performance and this relationship strengthens over time.

**Table 28. Regression Results of LOOSENING on Changes in STOXX (short-term window)**

Dependent Variable: $\Delta$ STOXX						
	1-day	2-day	3-day	4-day	5-day	10-day
<b>Loosening</b>	-0.013 (0.007)	-0.007 (0.005)	-0.001 (0.005)	0.003 (0.003)	0.003 (0.005)	0.002 (0.002)
<b>Change in Euribor</b>	-0.013 (0.007)	-0.012 (0.009)	-0.004 (0.006)	-0.023 (0.020)	-0.004 (0.007)	0.003 (0.007)
<b>Change in Exchange Rate</b>	0.409*** (0.062)	0.315*** (0.055)	0.255** (0.085)	0.316*** (0.059)	0.371*** (0.034)	0.206** (0.069)
<b>Change in S&amp;P 500</b>	0.862*** (0.095)	0.798*** (0.078)	0.739*** (0.041)	0.737*** (0.064)	0.706*** (0.059)	0.503*** (0.052)
<b>Lagged Change in STOXX</b>	-0.029 (0.082)	0.185* (0.093)	0.319*** (0.032)	0.349*** (0.034)	0.334*** (0.059)	0.511*** (0.047)
<b>Constant</b>	-0.001 (0.001)	-0.001 (0.001)	-0.003* (0.001)	-0.003* (0.002)	-0.004* (0.002)	-0.006*** (0.002)
<b>Observations</b>	501	500	499	498	497	493
<b>R2</b>	0.664	0.740	0.844	0.866	0.873	0.925
<b>Adjusted R2</b>	0.661	0.738	0.842	0.864	0.872	0.925
<b>F Statistics</b>	195.634*** (df = 5; 495)	281.596*** (df = 5; 494)	533.738*** (df = 5; 493)	635.004*** (df = 5; 492)	676.605*** (df = 5; 491)	1,207.948*** (df = 5; 487)

**Note:** \*p<0.05; \*\*p<0.01; \*\*\*p<0.001

### ***Results of the effect of TIGHTENING on VSTOXX***

The results of the regression model (7) are shown in Table 29. The coefficient for TIGHTENING announcements has no effect on market volatility. The same applies to Euribor and exchange rate. The S&P 500 has a statistically significant negative coefficient. This indicates that an increase in the S&P 500 index is associated with a slight decrease in European market volatility, suggesting a slight inverse relationship between U.S. stock market movements and European market volatility. The lagged VSTOXX variable has a strong positive coefficient of and is highly significant. This indicates that past volatility is a strong predictor of current volatility in the European markets.

**Table 29. Regression Results of TIGHTENING on VSTOXX**

<b>Dependent Variable: VSTOXX</b>	
	<b>1 day</b>
<b>Tightening</b>	-0.012 (0.140)
<b>Euribor</b>	-0.113 (0.165)
<b>Exchange Rate</b>	4.908 (2.686)
<b>S&amp;P 500</b>	-2.372** (0.888)
<b>Lagged VSTOXX</b>	0.865*** (0.053)
<b>Constant</b>	16.867** (5.854)
<b>Observations</b>	502
<b>R2</b>	0.865
<b>Adjusted R2</b>	0.864
<b>F Statistics</b>	637.885***
	(df = 5; 496)

**Note:** \*p<0.05; \*\*p<0.01; \*\*\*p<0.001

### ***Results of the effect of LOOSENING on VSTOXX***

The results of the regression model (7) are shown in Table 30. The coefficient for LOOSENING as well as Euribor has no effect on market volatility. The exchange rate has a positive and statistically significant coefficient, which suggests a potential relationship where an increase in the exchange rate is associated with an increase in market volatility. The coefficient of S&P 500 is negative and statistically significant, indicating that increases in the S&P 500 index are associated with decreases in European market volatility. This inverse relationship suggests that when the U.S. stock market performs well, it may lead to reduced volatility in the European market. The

lagged VSTOXX has a highly significant positive coefficient, suggesting a strong persistence in volatility; past volatility is a strong predictor of current volatility in the market.

**Table 30. Regression Results of LOOSENING on VSTOXX**

<b>Dependent Variable: VSTOXX</b>	
	<b>1 day</b>
<b>Loosening</b>	2.055 (1.174)
<b>Euribor</b>	-0.119 (0.161)
<b>Exchange Rate</b>	5.605* (2.574)
<b>S&amp;P 500</b>	-2.633** (0.813)
<b>Lagged VSTOXX</b>	0.853*** (0.049)
<b>Constant</b>	18.425*** (5.346)
<b>Observations</b>	502
<b>R2</b>	0.867
<b>Adjusted R2</b>	0.866
<b>F Statistics</b>	649.323*** (df = 5; 496)

**Note:** \*p<0.05; \*\*p<0.01; \*\*\*p<0.001

The robustness check results of the effect of a single DIRECTION of announcements confirms the results of the joint effect of DIRECTION on financial markets, suggesting the relationships observed between the independent variables and the dependent variable are consistent across different model specifications. Moreover, I confirm that model's predictions are stable across different conditions and results are reliable and could be replicated.

## 6. Conclusions

This study is aimed at discovering whether the macroprudential policy and financial stability announcements affect the government bond spreads, stock prices and market volatility. Furthermore, this study sheds light on the announcement's direction towards tightening or loosening stance and how the financial market impact varies depending on the specific announcements. In this study I am also interested in whether financial markets are influenced by other economic conditions.

To accomplish this, I constructed a unique macroprudential and financial stability news dataset for the European area. Furthermore, I reduce the keywords selection, comparing to similar studies on other topics, to be able to draw a conclusion from a big news selection and avoid gathering of only particular news. The news for my dataset is collected from FACTIVE database precisely the Reuters news.

I conduct the analysis using daily financial data on a long period from 2001 to 2023 to study how macroprudential policy communications are made and if they play a significant role in financial stability. I exploit a standard event study methodology to investigate how macroprudential policy announcements affect financial markets. The analysis considers both short-term (1 to 5 days) and long-term (10 days) event windows to observe the immediate and delayed effects on financial markets. By using Pooled OLS, I study the impact of policy announcements not on stock and bond prices directly, but on the changes of stock index and bond yields. I expand my analysis and study the direct effect of announcements on market volatility within 1 day. Moreover, I study the announcements' directional effect, incorporating tightening and loosening categorical variables.

This study focuses on the European area, including the UK announcements as well. Additionally, I conduct a country-specific analysis on the following countries: Czech Republic, Germany, Spain, France, Greece, Ireland, Sweden, and the UK.

The study discovers that macroprudential policy announcements notably raise changes in 10Y Government bond yields two days after their release, with the increase continuing into the fourth and fifth days, as proven by statistically significant effects. However, on the first, third, and tenth days following the announcement, changes in

bond yields remain unaffected. The rise in bond yield changes after macroprudential policy and financial stability announcements might reflect investors' reassessment of risk premiums, expecting stricter financial conditions that could affect corporate profits or economic growth indirectly. This delayed effect could happen from the time needed for investors to analyze the consequences of these announcements on specific sectors or the overall financial environment. The effect on changes in stock prices shows that announcements substantially boost changes in stock prices, but this impact surfaces only on the fifth day, with no significant influence noted on other days or over a broader 10-day period. A possible reason for this delayed reaction could be the lack of clearness regarding what this news indicated so people had to understand them properly and adjust accordingly. Despite previous assumptions, announcements appear not to affect the volatility of the market at all, hence challenging the idea they add anything to market volatility movements. The absence of a significant effect on market volatility could suggest that macroprudential announcements are generally identified as measures that improve, rather than weaken financial stability.

The results of specific policy announcements conclude that tightening announcements significantly increase changes in bond yields two and four days following the communications, while loosening announcements begin to have a significant positive effect starting three days afterward. Albeit, neither tightening nor loosening announcements influence changes in stock prices or market volatility. These insights confirm that bond markets are very sensitive to changes in interest rate expectations, which are directly influenced by macroprudential policies aimed at controlling financial stability. While for stock markets there might be a reaction to broader economic indicators, which might not be immediately or directly impacted by macroprudential adjustments. No changes in market volatility might indicate these announcements are not viewed as threatening.

The country specific results show that announcements have a significant immediate impact on changes in bond yields in Spain and France, leading to an increase, but this effect is not observed across other sampled countries. There's also a notable delayed influence on changes in bond yields in Spain and Ireland, again causing an increase, yet this impact is not present in the remaining countries examined. In terms of changes in stock prices, announcements have an immediate negative effect in Sweden, but no immediate impact is detected in other countries. As for the delayed effect, changes in stock prices in Germany and France experience a decrease following

the announcements, while in Greece, they increase. The observations suggest that some countries might have more sensitive bond markets than other countries. Moreover, more liquid markets react very quickly after announcements. Other reasons could be investors' sentiments or financial challenges.

Tightening announcements have an immediate positive effect on changes in bond yields in Spain and France, indicating a sensitivity to such announcements in these countries. On the contrary, the immediate effects of loosening announcements vary: they increase changes in bond yields in France but decrease them in the UK. Delayed effects of tightening also boost changes in bond yields in Spain and Ireland, while delayed loosening effects are mixed, raising changes in bond yields in Germany but lowering them in the UK. In terms of stock market responses, both tightening and loosening announcements lead to a decrease of changes in stock prices in Sweden immediately. Over time, tightening announcements result in stock price changes increasing in Greece but lowering these changes in Germany and France. Meanwhile, delayed effects of loosening announcements reduce changes in stock prices in France but increase them in Germany. These varying responses show that the effect of macroprudential policy announcements can appear to be different due to distinctive regional market dynamics and economic environments.

The study of how country-specific news impact the European market indicators highlights news from France, Greece, and Ireland significantly influences changes in European bond yields, with French announcements leading to a decrease and Greek and Irish to an increase. German announcements also impact yields, but with a delayed negative impact. For changes in European stock prices, Irish announcements lead to decreases, while Swedish announcements leads to increases in the European STOXX index. Additionally, announcements from France and Ireland significantly increase overall market volatility in Europe.

To determine whether other economic conditions have an impact on financial markets, I further study the effect of each control variable for the whole European area and for the sampled countries. Changes in the Euribor positively impact changes in bond yields from the first to the third day after an announcement, with continued effects observed on the fifth day. In the stock market, changes in the exchange rate and the S&P 500 consistently and positively affect changes in stock prices across all event windows. Interestingly, while the Euribor shows no impact on market volatility, the

S&P 500's increase associates with a decrease in European market volatility, suggesting an inverse relationship between U.S. equity market performance and European market volatility. Moreover, the exchange rate has a positive effect on market volatility.

The country specific results shed light on other economic variables and their importance in prediction of financial market fluctuations. The effects of macroeconomic variables like Euribor, exchange rates, and the S&P 500 index have distinct and significant impacts on financial market variables across various countries. The Euribor shows a mixed effect on bond yields: the change of this factor negatively affects changes in bond yields in France, Greece, and Ireland, while there is a positive impact in the UK and Czech Republic. Exchange rates also vary in their impact; their changes generally have a negative effect on changes in stock prices across most countries, except for Greece, where they increase changes in stock prices. The influence of changes in S&P 500 index is also notable; it positively affects changes in stock prices in Czech Republic, Germany, France, Greece, and Ireland, but shows a negative relationship with market volatility in Spain and has no significant effect on changes in bond yields.

The study highlights the importance of macroprudential and financial stability communications revealing how such announcements significantly raise changes in bond yields shortly after their release, while there is a significant but delayed effect of announcements on stock prices, which increases changes in stock prices only on the fifth day following the announcement. The analysis discovers that both tightening and loosening macroprudential policies have diverse effects on financial markets, which are also influenced by other significant economic factors like Euribor rates, exchange rates, and the S&P 500 index. Furthermore, French announcements lowers changes in European bond yields, while Greek and Irish announcements raise them, and German announcements lead to a decrease with a delayed effect. The European stock market shows that Irish announcements decreases changes in stock prices, while Swedish announcements increases them, and announcements from France and Ireland increase market volatility across Europe. This study enhances understanding of how financial markets respond to macroeconomic news, emphasizing the complexity of these dynamics.

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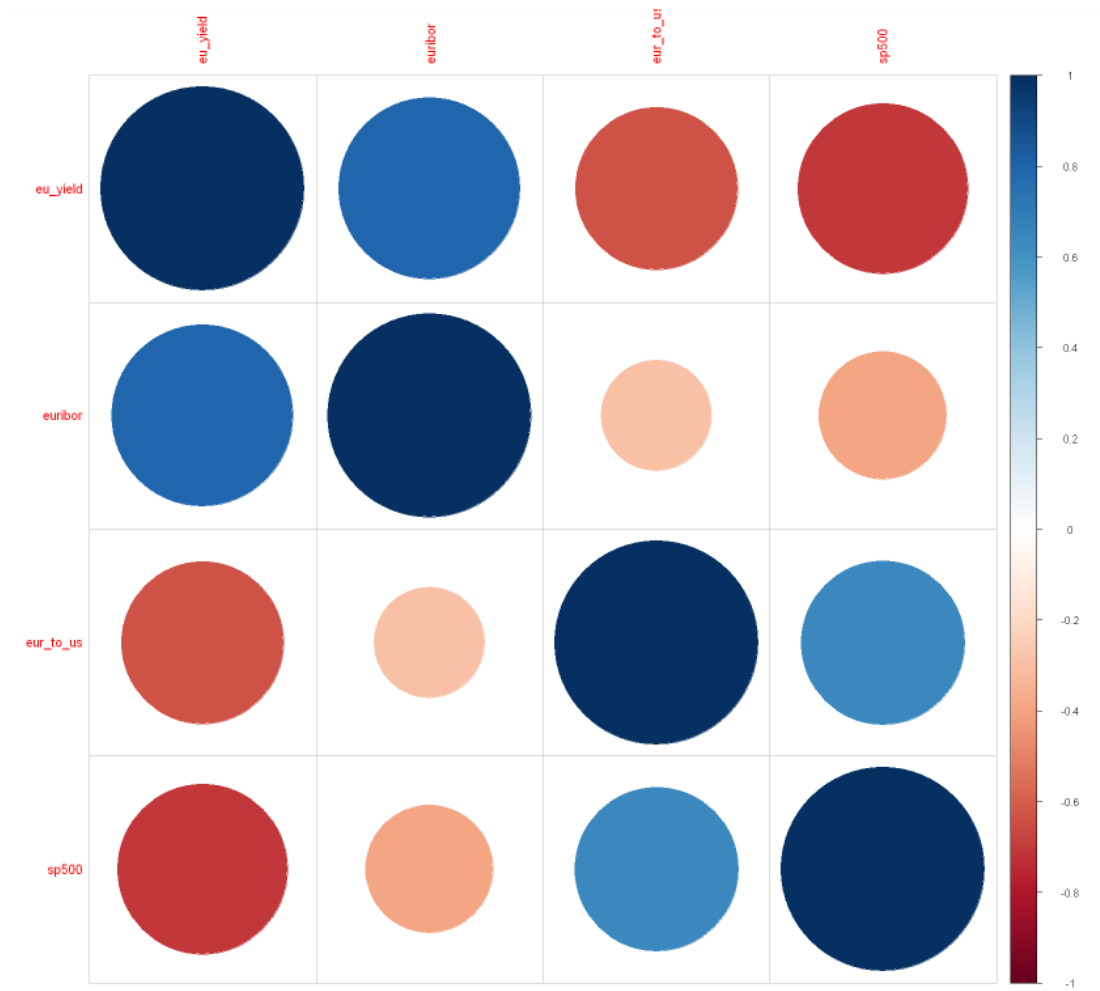


# Appendix

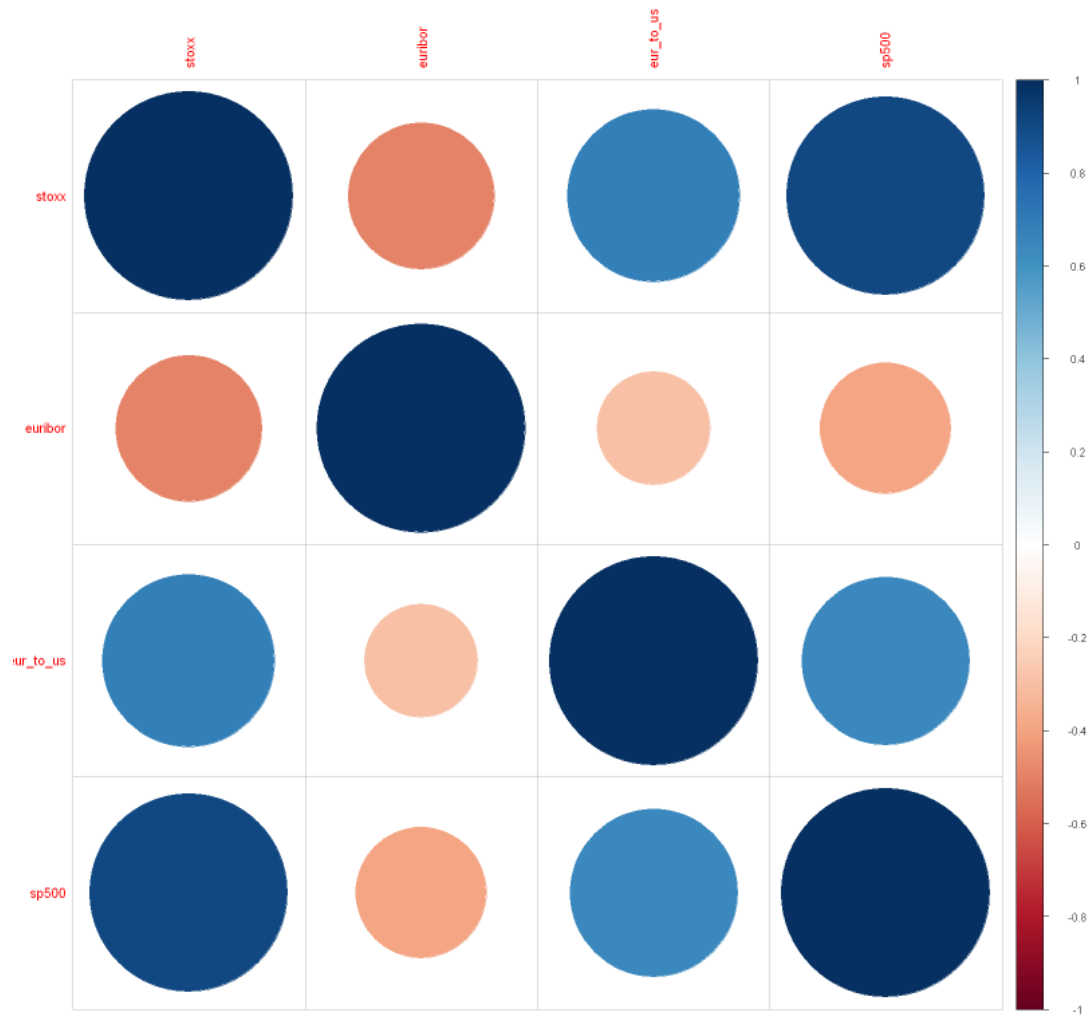
**Table A1: Results of Specification Test**

Test Name	Yield Dataframe	STOXX Dataframe	VSTOXX Dataframe
Augmented Dickey-Fuller Test	Dickey-Fuller = 0.95089 Lag order = 9 p-value = 0.99	Dickey-Fuller = - 4.8078 Lag order = 9 p-value = 0.01	Dickey-Fuller = - 5.117 Lag order = 9 p-value = 0.01
Durbin-Watson Test	DW = 1.8105 p-value = 0.01705	DW = 2.2598 p-value = 0.9982	DW = 2.1638 p-value = 0.9506
Box-Ljung Test	X-squared = 25.655 df = 10 p-value = 0.004233	X-squared = 19.342 df = 10 p-value = 0.03613	X-squared = 17.767 df = 10 p-value = 0.05903
Breusch-Pagan Test	BP = 19.091 df = 5 p-value = 0.001848	BP = 86.838 df = 5 p-value < 2.2e-16	BP = 69.985 df = 5 p-value = 1.032e- 13
VIF	announcement = 1.002606 change in euribor = 1.195383 change in exchange rate = 1.207287 change in S&P 500 = 1.010971 lagged yield = 1.011621	announcement = 1.002618 change in euribor = 1.212447 change in exchange rate = 1.200645 change in S&P 500 = 1.008430 lagged STOXX = 1.032070	announcement = 1.012614 euribor = 1.431003 exchange rate = 2.036445 S&P 500 = 2.925314 lagged VSTOXX = 1.386385

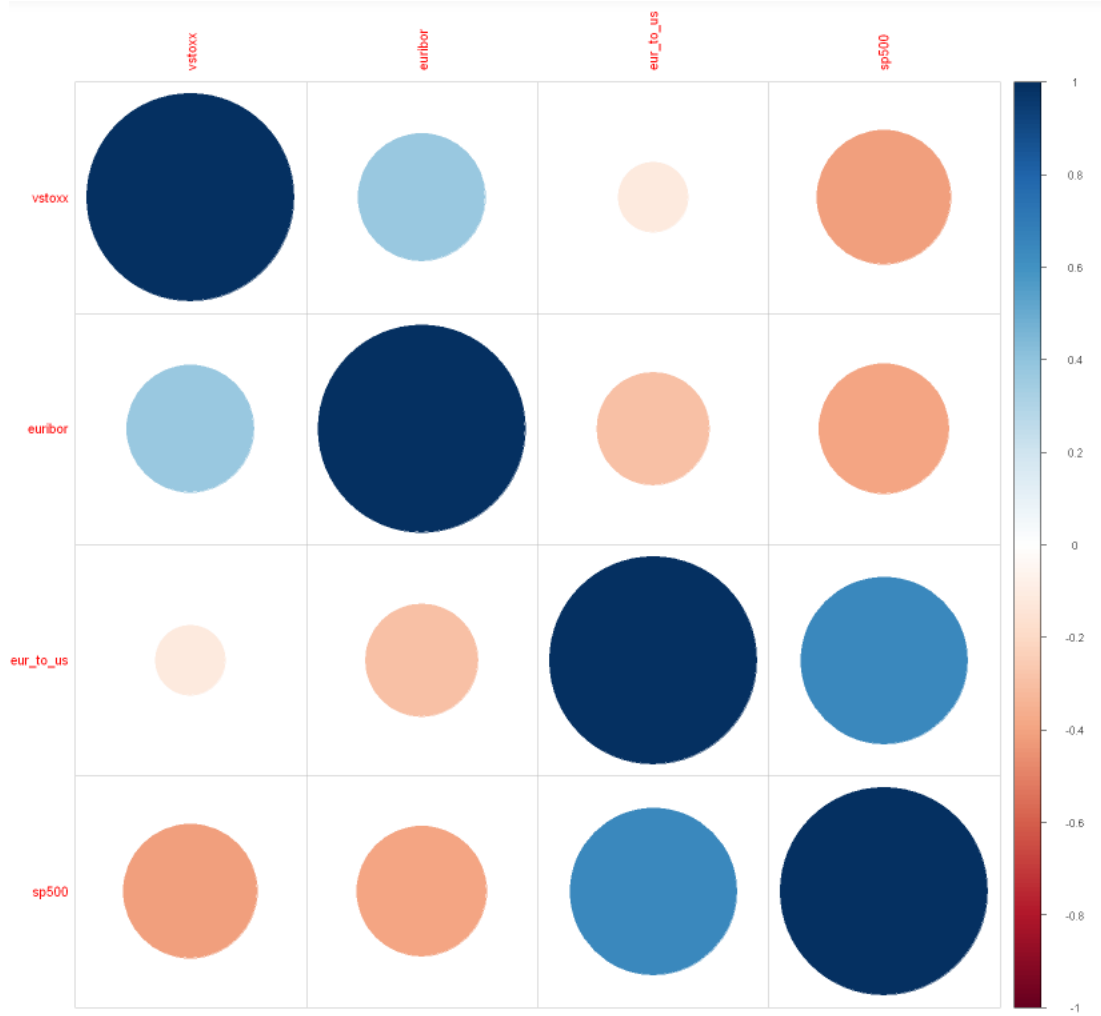
**Figure A1: Correlation Matrix for the Yield Dataframe**



**Figure A2: Correlation Matrix for the STOXX Dataframe**



**Figure A3: Correlation Matrix for the VSTOXX Dataframe**



**Table A2: Regression Results of ANNOUNCEMENTS on Change in Yield (Short-Term and Long-Term Windows)**

	Dependent variable: diff_yield_1 1-day	Dependent variable: diff_yield_2 2-day	Dependent variable: diff_yield_3 3-day	Dependent variable: diff_yield_4 4-day	Dependent variable: diff_yield_5 5-day	Dependent variable: diff_yield_10 10-day
Announcement	0.021 (0.012)	0.027* (0.011)	0.020 (0.010)	0.024* (0.011)	0.015* (0.006)	0.004 (0.004)
Change in Euribor	0.336*** (0.082)	0.297*** (0.056)	0.285*** (0.058)	0.036 (0.043)	0.079* (0.037)	0.011 (0.033)
Change in Exchange Rate	2.151** (0.827)	0.930 (0.723)	0.430 (0.473)	0.405 (0.567)	0.149 (0.304)	0.087 (0.259)
Change in S&P 500	0.204 (0.499)	0.465 (0.472)	0.187 (0.328)	0.325 (0.425)	0.077 (0.235)	0.135 (0.100)
Lagged Change in Yield	-0.181* (0.081)	0.304 (0.218)	0.444*** (0.110)	0.669*** (0.104)	0.703*** (0.072)	0.840*** (0.065)
Constant	-0.010 (0.006)	-0.027** (0.009)	-0.033** (0.012)	-0.049* (0.020)	-0.035** (0.013)	-0.020 (0.017)
Observations	501	500	499	498	497	493
R2	0.392	0.412	0.464	0.550	0.598	0.782
Adjusted R2	0.386	0.406	0.458	0.546	0.594	0.780
F Statistic	63.756*** (df = 5; 495)	69.109*** (df = 5; 494)	85.293*** (df = 5; 493)	120.455*** (df = 5; 492)	145.988*** (df = 5; 491)	349.976*** (df = 5; 487)

Note: \*p<0.05; \*\*p<0.01; \*\*\*p<0.001 \*p<0.05; \*\*p<0.01; \*\*\*p<0.001 \*p<0.05; \*\*p<0.01; \*\*\*p<0.001 \*p<0.05; \*\*p<0.01; \*\*\*p<0.001 \*p<0.05; \*\*p<0.01; \*\*\*p<0.001 \*p<0.05; \*\*p<0.01; \*\*\*p<0.001

**Table A3: Regression Results of ANNOUNCEMENTS on Change in STOXX (Short-Term and Long-Term Windows)**

	Dependent variable: diff_stoxx_1 1-day	Dependent variable: diff_stoxx_2 2-day	Dependent variable: diff_stoxx_3 3-day	Dependent variable: diff_stoxx_4 4-day	Dependent variable: diff_stoxx_5 5-day	Dependent variable: diff_stoxx_10 10-day
Announcement	-0.003 (0.002)	-0.001 (0.001)	0.001 (0.001)	0.003 (0.001)	0.003* (0.001)	0.001 (0.001)
Change in Euribor	-0.014 (0.012)	-0.012 (0.014)	-0.004 (0.005)	-0.024 (0.017)	-0.005 (0.008)	0.002 (0.007)
Change in Exchange Rate	0.409*** (0.062)	0.313** (0.106)	0.256* (0.118)	0.321*** (0.052)	0.375*** (0.050)	0.221** (0.071)
Change in S&P 500	0.864*** (0.078)	0.794*** (0.071)	0.738*** (0.041)	0.740*** (0.058)	0.710*** (0.062)	0.511*** (0.054)
Lagged Change in STOXX	-0.025 (0.082)	0.192* (0.087)	0.319*** (0.036)	0.344*** (0.041)	0.328*** (0.060)	0.504*** (0.047)
Constant	0.0002 (0.001)	-0.001 (0.001)	-0.004* (0.002)	-0.008** (0.003)	-0.009** (0.003)	-0.011* (0.005)
Observations	501	500	499	498	497	493
R2	0.659	0.738	0.844	0.868	0.875	0.926
Adjusted R2	0.655	0.735	0.843	0.866	0.874	0.925
F Statistic	191.246*** (df = 5; 495)	278.218*** (df = 5; 494)	534.396*** (df = 5; 493)	644.292*** (df = 5; 492)	686.646*** (df = 5; 491)	1,212.714*** (df = 5; 487)
Note:	*p<0.05; **p<0.01; ***p<0.001 *p<0.05; **p<0.01; ***p<0.001 *p<0.05; **p<0.01; ***p<0.001 *p<0.05; **p<0.01; ***p<0.001 *p<0.05; **p<0.01; ***p<0.001 *p<0.05; **p<0.01; ***p<0.001 *p<0.05; **p<0.01; ***p<0.001					

**Table A4: Regression Results of DIRECTION on Changes in Yield (Short-Term and Long-Term Windows)**

	Dependent variable: diff_yield_1 1-day	Dependent variable: diff_yield_2 2-day	Dependent variable: diff_yield_3 3-day	Dependent variable: diff_yield_4 4-day	Dependent variable: diff_yield_5 5-day	Dependent variable: diff_yield_10 10-day
Tightening	0.018 (0.010)	0.024* (0.010)	0.014 (0.009)	0.020* (0.010)	0.011 (0.006)	0.003 (0.004)
Loosening	0.060 (0.058)	0.058 (0.042)	0.077* (0.035)	0.073* (0.032)	0.066* (0.027)	0.032* (0.016)
Change in Euribor	0.334*** (0.081)	0.296*** (0.057)	0.283*** (0.057)	0.038 (0.044)	0.081* (0.034)	0.016 (0.031)
Change in Exchange Rate	2.156** (0.822)	0.926 (0.717)	0.422 (0.466)	0.391 (0.571)	0.125 (0.305)	0.061 (0.250)
Change in S&P 500	0.209 (0.497)	0.466 (0.472)	0.210 (0.323)	0.354 (0.427)	0.110 (0.226)	0.156 (0.094)
Lagged Change in Yield	-0.182* (0.081)	0.301 (0.215)	0.442*** (0.108)	0.664*** (0.101)	0.696*** (0.073)	0.834*** (0.059)
Constant	-0.010 (0.006)	-0.027** (0.009)	-0.032** (0.012)	-0.049* (0.020)	-0.036** (0.013)	-0.025 (0.017)
Observations	501	500	499	498	497	493
R2	0.394	0.414	0.473	0.558	0.607	0.785
Adjusted R2	0.387	0.407	0.466	0.552	0.602	0.782
F Statistic	53.611*** (df = 6; 494)	58.024*** (df = 6; 493)	73.518*** (df = 6; 492)	103.141*** (df = 6; 491)	126.128*** (df = 6; 490)	295.812*** (df = 6; 486)
Note:	*p<0.05; **p<0.01; ***p<0.001 *p<0.05; **p<0.01; ***p<0.001 *p<0.05; **p<0.01; ***p<0.001 *p<0.05; **p<0.01; ***p<0.001 *p<0.05; **p<0.01; ***p<0.001 *p<0.05; **p<0.01; ***p<0.001					

**Table A5: Regression Results of DIRECTION on Changes in STOXX (Short-Term Window and Long-Term Window)**

	Dependent variable: diff_stoxx_1 1-day	Dependent variable: diff_stoxx_2 2-day	Dependent variable: diff_stoxx_3 3-day	Dependent variable: diff_stoxx_4 4-day	Dependent variable: diff_stoxx_5 5-day	Dependent variable: diff_stoxx_10 10-day
Tightening	-0.002 (0.001)	-0.00001 (0.001)	0.001 (0.001)	0.003 (0.001)	0.002 (0.001)	0.001 (0.001)
Loosening	-0.014 (0.008)	-0.007 (0.006)	-0.001 (0.006)	0.004 (0.005)	0.004 (0.003)	0.003 (0.002)
Change in Euribor	-0.014 (0.011)	-0.012 (0.014)	-0.004 (0.006)	-0.024 (0.017)	-0.005 (0.008)	0.002 (0.007)
Change in Exchange Rate	0.408*** (0.061)	0.315*** (0.081)	0.256* (0.108)	0.320*** (0.048)	0.374*** (0.050)	0.217** (0.072)
Change in S&P 500	0.863*** (0.077)	0.798*** (0.068)	0.739*** (0.041)	0.740*** (0.057)	0.709*** (0.062)	0.508*** (0.054)
Lagged Change in STOXX	-0.028 (0.080)	0.185* (0.083)	0.318*** (0.033)	0.345*** (0.045)	0.329*** (0.060)	0.509*** (0.048)
Constant	0.0002 (0.001)	-0.001 (0.001)	-0.004* (0.002)	-0.008** (0.003)	-0.009** (0.003)	-0.011* (0.005)
Observations	501	500	499	498	497	493
R2	0.665	0.740	0.844	0.868	0.875	0.926
Adjusted R2	0.661	0.737	0.842	0.866	0.873	0.925
F Statistic	163.339*** (df = 6; 494)	234.189*** (df = 6; 493)	444.814*** (df = 6; 492)	536.130*** (df = 6; 491)	571.334*** (df = 6; 490)	1,010.974*** (df = 6; 486)
Note:	*p<0.05; **p<0.01; ***p<0.001 *p<0.05; **p<0.01; ***p<0.001 *p<0.05; **p<0.01; ***p<0.001 *p<0.05; **p<0.01; ***p<0.001 *p<0.05; **p<0.01; ***p<0.001 *p<0.05; **p<0.01; ***p<0.001					



**Table A6: Regression Results of ANNOUNCEMENT on Changes in Euro Yield (5-day Event Window) for Each Country**

	Dependent variable: CZ5 5-day	Dependent variable: DE5 5-day	Dependent variable: ES5 5-day	Dependent variable: FR5 5-day	Dependent variable: GR5 5-day	Dependent variable: IE5 5-day	Dependent variable: SE5 5-day	Dependent variable: UK5 5-day
Announcement	0.011 (0.020)	-0.020 (0.024)	0.040 (0.038)	-0.040** (0.015)	0.098*** (0.029)	0.026 (0.026)	0.034 (0.026)	0.008 (0.010)
Change in Euribor	-0.545*** (0.096)	-0.219 (0.447)	0.122** (0.040)	0.143 (0.448)	-0.171 (0.183)	-0.209 (0.110)	0.494*** (0.122)	0.147* (0.067)
Change in Exchange Rate	0.007 (0.004)	-0.001 (0.011)	-0.003 (0.003)	-0.002 (0.001)	0.014** (0.005)	-0.018 (0.011)	0.001 (0.002)	0.002 (0.002)
Change in S&P 500	-0.065 (0.426)	1.151 (1.087)	0.642 (0.377)	-0.285 (0.356)	0.682 (0.601)	-0.448 (0.242)	-2.188 (1.675)	-0.004 (0.414)
Lagged Change in Yield	0.632*** (0.135)	-0.037 (0.556)	0.868*** (0.158)	1.278*** (0.131)	0.724*** (0.181)	1.033*** (0.033)	0.596** (0.220)	0.671*** (0.069)
Constant	-0.134* (0.063)	-0.075 (0.078)	-0.084 (0.080)	0.149*** (0.037)	-0.217*** (0.044)	-0.098 (0.076)	-0.025 (0.033)	-0.021 (0.035)
Observations	36	20	25	15	23	24	55	236
R2	0.614	0.369	0.696	0.873	0.744	0.883	0.753	0.677
Adjusted R2	0.550	0.144	0.616	0.802	0.669	0.850	0.727	0.670
F Statistic	9.559*** (df = 5; 30)	1.641 (df = 5; 14)	8.701*** (df = 5; 19)	12.352*** (df = 5; 9)	9.892*** (df = 5; 17)	27.070*** (df = 5; 18)	29.829*** (df = 5; 49)	96.516*** (df = 5; 230)

Note: \*p<0.05; \*\*p<0.01; \*\*\*p<0.001

<0.05; \*\*p<0.01; \*\*\*p<0.001

**Table A7: Regression Results of ANNOUNCEMENT on Changes in Euro Yield (10-day Event Window) for Each Country**

	Dependent variable: CZ10 10-day	Dependent variable: DE10 10-day	Dependent variable: ES10 10-day	Dependent variable: FR10 10-day	Dependent variable: GR10 10-day	Dependent variable: IE10 10-day	Dependent variable: SE10 10-day	Dependent variable: UK10 10-day
Announcement	-0.011 (0.011)	-0.030* (0.015)	0.041 (0.021)	0.027** (0.009)	-0.027 (0.017)	0.041* (0.016)	0.015 (0.014)	0.001 (0.005)
Change in Euribor	-0.009 (0.037)	-0.754*** (0.076)	0.035 (0.047)	0.462** (0.173)	0.203 (0.123)	0.020 (0.042)	0.042 (0.075)	0.010 (0.048)
Change in Exchange Rate	-0.003 (0.002)	-0.005 (0.015)	0.002 (0.003)	-0.002 (0.004)	-0.003 (0.009)	0.003 (0.006)	-0.018 (0.011)	-0.002 (0.002)
Change in S&P 500	0.239 (0.294)	0.008 (0.115)	0.187 (0.184)	-0.044 (0.309)	0.761 (0.464)	0.065 (0.430)	-0.248 (0.395)	0.197 (0.301)
Lagged Change in Yield	0.967*** (0.058)	0.940*** (0.090)	0.705*** (0.061)	0.850*** (0.120)	0.925*** (0.089)	0.873*** (0.039)	0.846*** (0.128)	0.890*** (0.047)
Constant	0.098 (0.074)	0.062 (0.063)	-0.166 (0.100)	-0.112 (0.101)	0.074 (0.074)	-0.163* (0.068)	0.035 (0.073)	-0.023 (0.037)
Observations	36	20	25	15	23	24	55	231
R2	0.887	0.792	0.836	0.900	0.878	0.914	0.651	0.836
Adjusted R2	0.868	0.718	0.792	0.845	0.843	0.890	0.616	0.832
F Statistic	47.035*** (df = 5; 30)	10.667*** (df = 5; 14)	19.330*** (df = 5; 19)	16.289*** (df = 5; 9)	24.573*** (df = 5; 17)	38.319*** (df = 5; 18)	18.289*** (df = 5; 49)	229.355*** (df = 5; 225)

Note: \*p<0.05; \*\*p<0.01; \*\*\*p<0.001\*p<0.05; \*\*p<0.01; \*\*\*p<0.001\*p<0.05; \*\*p<0.01; \*\*\*p<0.001\*p<0.05; \*\*p<0.01; \*\*\*p<0.001\*p<0.05; \*\*p<0.01; \*\*\*p<0.001\*p<0.05; \*\*p<0.01; \*\*\*p<0.001\*p<0.05; \*\*p<0.01; \*\*\*p<0.001\*p<0.05; \*\*p<0.01; \*\*\*p<0.001

**Table A8: Regression Results of ANNOUNCEMENT on Changes in Euro STOXX (5-day Event Window) for Each Country**

	Dependent variable: C25 5-day	Dependent variable: DE5 5-day	Dependent variable: E55 5-day	Dependent variable: FR5 5-day	Dependent variable: GR5 5-day	Dependent variable: IES 5-day	Dependent variable: SE5 5-day	Dependent variable: UK5 5-day
Announcement	-0.004 (0.004)	-0.001 (0.004)	-0.007 (0.004)	-0.009 (0.013)	-0.006 (0.005)	-0.008*** (0.001)	0.003* (0.001)	0.001 (0.002)
Change in Euribor	0.032** (0.012)	-0.092 (0.090)	-0.013* (0.006)	0.333 (0.243)	0.070** (0.022)	0.043*** (0.007)	-0.027 (0.016)	-0.002 (0.012)
Change in Exchange Rate	0.001* (0.001)	0.002 (0.001)	0.001 (0.001)	0.001 (0.001)	0.004** (0.002)	0.002*** (0.0004)	0.001 (0.0004)	0.001* (0.0005)
Change in S&P 500	0.613*** (0.059)	0.584*** (0.131)	0.574*** (0.153)	0.421 (0.402)	0.764** (0.256)	0.527*** (0.014)	0.482*** (0.066)	0.719*** (0.061)
Lagged Change in STOXX	0.298*** (0.076)	0.400** (0.126)	0.523*** (0.086)	0.850*** (0.205)	0.396 (0.215)	0.386*** (0.051)	0.446*** (0.095)	0.303*** (0.054)
Constant	-0.025* (0.011)	-0.002 (0.008)	0.006 (0.012)	0.029 (0.047)	0.007 (0.011)	0.017*** (0.004)	-0.005 (0.004)	-0.006 (0.005)
Observations	36	20	25	15	23	24	55	236
R2	0.898	0.888	0.896	0.946	0.924	0.936	0.847	0.911
Adjusted R2	0.881	0.849	0.869	0.917	0.902	0.918	0.832	0.909
F Statistic	52.697*** (df = 5; 30)	22.284*** (df = 5; 14)	32.753*** (df = 5; 19)	31.797*** (df = 5; 9)	41.376*** (df = 5; 17)	52.278*** (df = 5; 18)	54.312*** (df = 5; 49)	470.057*** (df = 5; 230)

Note: \*p<0.05; \*\*p<0.01; \*\*\*p<0.001

**Table A9: Regression Results of ANNOUNCEMENT on Changes in Euro STOXX (10-day Event Window) for Each Country**

	Dependent variable: CZ10 10-day	Dependent variable: DE10 10-day	Dependent variable: ES10 10-day	Dependent variable: FR10 10-day	Dependent variable: GR10 10-day	Dependent variable: IE10 10-day	Dependent variable: SE10 10-day	Dependent variable: UK10 10-day
Announcement	-0.001 (0.003)	-0.002 (0.003)	-0.002 (0.002)	0.001 (0.005)	-0.002 (0.004)	-0.010*** (0.001)	0.001 (0.002)	0.001 (0.002)
Change in Euribor	0.011* (0.005)	-0.138 (0.122)	0.009*** (0.002)	0.128 (0.091)	-0.0003 (0.023)	0.021*** (0.003)	0.011 (0.006)	-0.0004 (0.011)
Change in Exchange Rate	0.001* (0.001)	-0.0002 (0.003)	0.001 (0.001)	0.001 (0.001)	0.004* (0.002)	0.001* (0.0005)	0.001** (0.0005)	0.001* (0.001)
Change in S&P 500	0.589*** (0.046)	0.034 (0.136)	0.281*** (0.084)	0.359 (0.186)	-0.211 (0.259)	0.682*** (0.042)	0.612*** (0.083)	0.498*** (0.069)
Lagged Change in STOXX	0.387*** (0.042)	1.069*** (0.238)	0.759*** (0.090)	0.762*** (0.161)	1.126*** (0.226)	0.129** (0.043)	0.401*** (0.083)	0.451*** (0.069)
Constant	-0.029 (0.019)	-0.009 (0.016)	0.005 (0.014)	-0.009 (0.039)	0.005 (0.017)	0.036*** (0.006)	-0.008 (0.008)	-0.011 (0.008)
Observations	36	20	25	15	23	24	55	231
R2	0.929	0.977	0.953	0.979	0.892	0.976	0.833	0.889
Adjusted R2	0.917	0.969	0.940	0.967	0.860	0.969	0.816	0.886
F Statistic	78.564*** (df = 5; 30)	119.049*** (df = 5; 14)	76.448*** (df = 5; 19)	83.056*** (df = 5; 9)	28.006*** (df = 5; 17)	147.177*** (df = 5; 18)	48.853*** (df = 5; 49)	360.010*** (df = 5; 225)
Note:	*p<0.05; **p<0.01; ***p<0.001							

**Table A10: Regression Results of ANNOUNCEMENT on Euro VSTOXX for Each Country**

	Dependent variable: CZ 1 day	Dependent variable: DE 1 day	Dependent variable: ES 1 day	Dependent variable: FR 1 day	Dependent variable: GR 1 day	Dependent variable: IE 1 day	Dependent variable: SE 1 day	Dependent variable: UK 1 day
Announcement	1.377 (1.739)	5.816 (3.673)	1.150 (1.102)	2.156** (0.659)	1.294 (1.526)	1.947* (0.864)	-0.567 (0.377)	-0.858 (0.455)
Euribor	-0.004 (0.353)	2.816*** (0.462)	-0.062 (0.272)	-2.539 (1.778)	-1.443 (1.825)	-1.513*** (0.232)	-0.260 (0.680)	1.790* (0.734)
Exchange Rate	-0.102 (0.348)	28.475 (17.757)	20.907*** (4.079)	22.509 (16.561)	-1.138 (13.460)	-12.707 (11.539)	0.566 (0.902)	17.280** (5.542)
S&P 500	-1.475 (1.667)	-5.721 (4.466)	-4.387*** (1.089)	-4.487 (6.093)	-2.523 (2.404)	0.148 (2.326)	-1.113 (5.430)	-3.593 (1.917)
Lagged VSTOXX	0.585*** (0.022)	0.550** (0.176)	0.835*** (0.120)	1.053*** (0.080)	0.991*** (0.089)	0.895*** (0.097)	0.704*** (0.102)	0.707*** (0.061)
Constant	20.948 (10.702)	27.530 (24.292)	19.092* (8.638)	14.418 (35.871)	20.360 (19.529)	11.030 (12.830)	9.717 (36.289)	22.036 (15.688)
Observations	36	22	25	16	23	24	55	238
R2	0.725	0.827	0.836	0.949	0.849	0.887	0.661	0.803
Adjusted R2	0.680	0.773	0.793	0.924	0.804	0.856	0.627	0.799
F Statistic	15.849*** (df = 5; 30)	15.275*** (df = 5; 16)	19.361*** (df = 5; 19)	37.320*** (df = 5; 10)	19.092*** (df = 5; 17)	28.314*** (df = 5; 18)	19.137*** (df = 5; 49)	189.326*** (df = 5; 232)
Note:	*p<0.05; **p<0.01; ***p<0.001							

**Table A11: Regression Results of ANNOUNCEMENT on Changes in Local Yield (5-day Event Window) for Each Country**

	Dependent variable: CZ5 5-day	Dependent variable: DE5 5-day	Dependent variable: ES5 5-day	Dependent variable: FR5 5-day	Dependent variable: GR5 5-day	Dependent variable: IE5 5-day	Dependent variable: SE5 5-day	Dependent variable: UK5 5-day
Announcement	0.001 (0.228)	-0.065 (0.113)	0.832* (0.334)	0.791* (0.351)	0.232 (1.772)	0.186 (0.293)	0.204 (0.217)	0.104 (0.222)
Change in Euribor	0.320 (0.593)	-1.180 (1.933)	-0.586 (1.099)	-9.695 (6.435)	-40.973** (13.656)	-1.414** (0.543)	0.013 (1.159)	0.452 (0.237)
Change in Exchange Rate	0.014 (0.017)	0.118 (0.122)	0.044* (0.022)	-0.115** (0.037)	1.055*** (0.309)	0.038 (0.035)	-0.002 (0.050)	-0.029 (0.025)
Change in S&P 500	-0.891 (2.266)	9.906 (11.100)	12.852 (7.644)	-9.704*** (2.113)	44.990 (26.763)	-0.696 (1.839)	-3.509 (2.603)	0.933 (1.686)
Lagged Change in Yield	0.397** (0.149)	0.532*** (0.109)	0.466 (0.398)	1.060*** (0.082)	0.090 (0.105)	0.773*** (0.233)	0.044 (0.144)	0.294* (0.136)
Constant	0.427 (0.503)	-0.837** (0.272)	-1.514* (0.605)	-3.012* (1.409)	7.924 (4.891)	-0.541 (0.427)	-0.730 (0.803)	-0.722 (0.706)
Observations	36	20	25	15	23	24	55	236
R2	0.234	0.619	0.539	0.732	0.490	0.515	0.041	0.118
Adjusted R2	0.106	0.482	0.418	0.583	0.339	0.380	-0.056	0.099
F Statistic	1.832 (df = 5; 30)	4.540* (df = 5; 14)	4.442** (df = 5; 19)	4.921* (df = 5; 9)	3.261* (df = 5; 17)	3.821* (df = 5; 18)	0.423 (df = 5; 49)	6.177*** (df = 5; 230)
Note:	*p<0.05; **p<0.01; ***p<0.001							



**Table A12: Regression Results of ANNOUNCEMENT on Changes in Local Yield (10-day Event Window) for Each Country**

	Dependent variable: CZ10 10-day	Dependent variable: DE10 10-day	Dependent variable: ES10 10-day	Dependent variable: FR10 10-day	Dependent variable: GR10 10-day	Dependent variable: IE10 10-day	Dependent variable: SE10 10-day	Dependent variable: UK10 10-day
Announcement	0.022 (0.108)	-0.061 (0.053)	1.047* (0.509)	-0.059 (0.094)	1.191 (1.044)	0.266* (0.117)	0.085 (0.071)	0.086 (0.148)
Change in Euribor	0.436*** (0.107)	-0.337 (0.235)	-0.632 (0.668)	-3.135*** (0.886)	-23.907 (18.859)	0.130 (0.170)	-0.205 (0.153)	0.640 (0.448)
Change in Exchange Rate	0.018 (0.010)	-0.030 (0.040)	0.009 (0.046)	-0.005 (0.021)	0.523 (0.521)	0.016 (0.019)	0.004 (0.019)	-0.029 (0.025)
Change in S&P 500	0.135 (0.698)	0.502 (0.529)	5.547 (9.338)	-3.213*** (0.865)	-7.699 (20.778)	0.253 (2.031)	0.019 (4.348)	1.613 (1.801)
Lagged Change in Yield	0.586*** (0.171)	0.074 (0.043)	0.673** (0.234)	1.175*** (0.126)	0.226* (0.104)	0.450* (0.179)	0.064 (0.173)	0.344** (0.116)
Constant	0.264 (0.584)	-0.546* (0.246)	-5.545 (3.515)	-0.457 (0.469)	4.807 (4.664)	-1.370*** (0.390)	-0.852 (0.534)	-1.001 (0.827)
Observations	36	20	25	15	23	24	55	231
R2	0.436	0.323	0.549	0.856	0.284	0.384	0.017	0.175
Adjusted R2	0.343	0.081	0.430	0.775	0.074	0.213	-0.084	0.157
F Statistic	4.647** (df = 5; 30)	1.336 (df = 5; 14)	4.623** (df = 5; 19)	10.671** (df = 5; 9)	1.350 (df = 5; 17)	2.248 (df = 5; 18)	0.165 (df = 5; 49)	9.554*** (df = 5; 225)

Note: \*p<0.05; \*\*p<0.01; \*\*\*p<0.001\*p<0.05; \*\*p<0.01; \*\*\*p<0.001\*p<0.05; \*\*p<0.01; \*\*\*p<0.001\*p<0.05; \*\*p<0.01; \*\*\*p<0.001\*p<0.05; \*\*p<0.01; \*\*\*p<0.001\*p<0.05; \*\*p<0.01; \*\*\*p<0.001\*p<0.05; \*\*p<0.01; \*\*\*p<0.001\*p<0.05; \*\*p<0.01; \*\*\*p<0.001\*p<0.05; \*\*p<0.01; \*\*\*p<0.001\*p<0.05; \*\*p<0.01; \*\*\*p<0.001

**Table A13: Regression Results of ANNOUNCEMENT on Changes in Local Stock Prices (5-day Event Window) for Each Country**

	Dependent variable: CZ5 5-day	Dependent variable: DE5 5-day	Dependent variable: ES5 5-day	Dependent variable: FR5 5-day	Dependent variable: GR5 5-day	Dependent variable: IE5 5-day	Dependent variable: SE5 5-day	Dependent variable: UK5 5-day
Announcement	0.172 (0.102)	-0.196 (0.122)	-0.014 (0.135)	-0.047 (0.229)	0.279 (0.254)	0.086 (0.067)	-0.297** (0.107)	-0.069 (0.040)
Change in Euribor	-0.301 (0.332)	-0.078 (1.509)	-0.042 (0.734)	-0.429 (2.581)	1.212 (2.258)	-0.224 (0.128)	0.585 (0.447)	0.092 (0.059)
Change in Exchange Rate	-0.103*** (0.011)	-0.300*** (0.074)	-0.119*** (0.016)	-0.089*** (0.012)	-0.035 (0.091)	-0.115*** (0.007)	-0.172*** (0.031)	-0.167*** (0.021)
Change in S&P 500	-0.303 (1.767)	-13.454*** (3.351)	2.300 (1.449)	-0.865 (1.790)	5.229 (6.869)	4.396*** (0.834)	-1.356 (1.167)	0.244 (0.468)
Lagged Change in Stock Prices	0.171* (0.084)	-0.013 (0.100)	0.108 (0.087)	-0.005 (0.070)	-0.191 (0.120)	-0.067 (0.049)	-0.137 (0.070)	0.074* (0.037)
Constant	0.081 (0.381)	1.057*** (0.153)	0.155 (0.372)	-0.446 (0.587)	-1.503* (0.670)	-0.849*** (0.175)	-0.941** (0.292)	0.521*** (0.120)
Observations	36	20	25	15	23	24	55	236
R2	0.623	0.873	0.501	0.436	0.348	0.698	0.583	0.547
Adjusted R2	0.560	0.828	0.370	0.123	0.156	0.614	0.541	0.537
F Statistic	9.926*** (df = 5; 30)	19.334*** (df = 5; 14)	3.815* (df = 5; 19)	1.393 (df = 5; 9)	1.813 (df = 5; 17)	8.312*** (df = 5; 18)	13.707*** (df = 5; 49)	55.564*** (df = 5; 230)
Note:	*p<0.05; **p<0.01; ***p<0.001							



**Table A14: Regression Results of ANNOUNCEMENT on Changes in Local Stock Prices (10-day Event Window) for Each Country**

	Dependent variable: CZ10 10-day	Dependent variable: DE10 10-day	Dependent variable: ES10 10-day	Dependent variable: FR10 10-day	Dependent variable: GR10 10-day	Dependent variable: IE10 10-day	Dependent variable: SE10 10-day	Dependent variable: UK10 10-day
Announcement	0.050 (0.102)	-0.129* (0.055)	-0.143 (0.084)	-0.164*** (0.037)	0.323* (0.152)	-0.005 (0.019)	-0.053 (0.051)	-0.048 (0.038)
Change in Euribor	-0.067 (0.102)	-0.466** (0.179)	0.407* (0.171)	1.450 (1.068)	-0.094 (2.340)	0.160** (0.059)	0.286*** (0.077)	0.047 (0.062)
Change in Exchange Rate	-0.097*** (0.017)	-0.402*** (0.059)	-0.083** (0.031)	-0.115*** (0.015)	-0.622*** (0.085)	-0.127*** (0.015)	-0.136*** (0.011)	-0.178*** (0.032)
Change in S&P 500	1.497** (0.544)	3.285*** (0.370)	-0.133 (0.784)	3.420*** (0.433)	6.467 (8.322)	-0.944 (0.545)	1.034 (1.235)	-0.141 (0.546)
Lagged Change in Stock Prices	0.182 (0.114)	-0.042 (0.065)	-0.011 (0.192)	0.071 (0.122)	0.125 (0.134)	0.098 (0.101)	-0.003 (0.047)	0.095* (0.044)
Constant	0.073 (0.657)	1.030*** (0.302)	1.433*** (0.284)	-0.473 (0.349)	-2.467*** (0.567)	-0.704*** (0.125)	-2.047*** (0.361)	0.658** (0.214)
Observations	36	20	25	15	23	24	55	231
R2	0.635	0.858	0.528	0.841	0.868	0.806	0.636	0.508
Adjusted R2	0.575	0.807	0.404	0.753	0.829	0.752	0.599	0.497
F Statistic	10.458*** (df = 5; 30)	16.916*** (df = 5; 14)	4.258** (df = 5; 19)	9.549** (df = 5; 9)	22.271*** (df = 5; 17)	14.950*** (df = 5; 18)	17.106*** (df = 5; 49)	46.458*** (df = 5; 225)
Note:	*p<0.05; **p<0.01; ***p<0.001 *p<0.05; **p<0.01; ***p<0.001 *p<0.05; **p<0.01; ***p<0.001 *p<0.05; **p<0.01; ***p<0.001 *p<0.05; **p<0.01; ***p<0.001 *p<0.05; **p<0.01; ***p<0.001 *p<0.05; **p<0.01; ***p<0.001 *p<0.05; **p<0.01; ***p<0.001 *p<0.05; **p<0.01; ***p<0.001							

**Table A15: Regression Results of DIRECTION on Changes in Local Yield (5-day Event Window) for Each Country**

	Dependent variable: CZ5 5-day	Dependent variable: DE5 5-day	Dependent variable: ES5 5-day	Dependent variable: FR5 5-day	Dependent variable: GR5 5-day	Dependent variable: IE5 5-day	Dependent variable: SE5 5-day	Dependent variable: UK5 5-day
Tightening	-0.002 (0.249)	-0.146 (0.096)	0.828* (0.336)	0.683* (0.316)	1.588 (2.543)	0.191 (0.301)	0.214 (0.268)	0.211 (0.230)
Loosening	0.103 (0.267)	2.487 (1.841)	0.490 (0.338)	1.643* (0.687)	-3.188 (2.537)	0.550 (0.492)	0.042 (0.369)	-1.409* (0.666)
Change in Euribor	0.348 (0.542)	0.148 (1.875)	-0.662 (1.146)	-9.847** (3.779)	-47.854** (18.221)	-1.434** (0.547)	-0.095 (2.604)	0.471* (0.221)
Change in Exchange Rate	0.011 (0.019)	0.071 (0.050)	0.050 (0.032)	-0.102*** (0.017)	1.069** (0.349)	0.035 (0.037)	0.0005 (0.091)	-0.018 (0.020)
Change in S&P 500	-0.755 (1.935)	7.710 (4.745)	12.155 (7.178)	-6.448*** (1.342)	58.353* (26.151)	-0.472 (1.513)	-4.064 (3.288)	0.852 (1.564)
Lagged Change in Yield	0.391* (0.175)	0.632*** (0.109)	0.483 (0.364)	1.017*** (0.079)	0.144 (0.078)	0.759*** (0.212)	0.047 (0.149)	0.260* (0.110)
Constant	0.440 (0.501)	-0.833** (0.262)	-1.384* (0.556)	-3.179** (1.208)	7.031 (5.122)	-0.599 (0.486)	-0.695 (1.294)	-0.635 (0.626)
Observations	36	20	25	15	23	24	55	236
R2	0.237	0.730	0.542	0.749	0.506	0.520	0.041	0.146
Adjusted R2	0.079	0.606	0.389	0.560	0.320	0.350	-0.079	0.123
F Statistic	1.503 (df = 6; 29)	5.867** (df = 6; 13)	3.549* (df = 6; 18)	3.972* (df = 6; 8)	2.728 (df = 6; 16)	3.067* (df = 6; 17)	0.338 (df = 6; 48)	6.508*** (df = 6; 229)

Note: \*p<0.05; \*\*p<0.01; \*\*\*p<0.001

**Table A16: Regression Results of DIRECTION on Changes in Local Yield (10-day Event Window) for Each Country**

	Dependent variable: CZ10 10-day	Dependent variable: DE10 10-day	Dependent variable: ES10 10-day	Dependent variable: FR10 10-day	Dependent variable: GR10 10-day	Dependent variable: IE10 10-day	Dependent variable: SE10 10-day	Dependent variable: UK10 10-day
Tightening	0.023 (0.102)	-0.061 (0.048)	0.986* (0.412)	0.007 (0.234)	1.088 (1.078)	0.268* (0.117)	0.089 (0.071)	0.120 (0.158)
Loosening	0.112 (0.218)	0.579*** (0.133)	0.561 (0.800)	0.239 (0.965)	2.071 (1.826)	0.351 (0.504)	0.011 (0.269)	-1.187* (0.597)
Change in Euribor	0.447*** (0.113)	-0.093 (0.199)	-0.574 (0.500)	-3.824 (2.021)	-23.952 (20.708)	0.124 (0.184)	-0.229 (0.121)	0.594 (0.378)
Change in Exchange Rate	0.014 (0.013)	-0.041 (0.030)	0.009 (0.041)	-0.014 (0.044)	0.344 (0.673)	0.015 (0.019)	0.005 (0.018)	-0.027 (0.028)
Change in S&P 500	0.110 (0.692)	-0.296 (0.374)	5.560 (6.951)	-3.096** (1.072)	-8.758 (16.117)	0.202 (2.240)	0.034 (4.468)	0.776 (1.932)
Lagged Change in Yield	0.573*** (0.143)	0.100*** (0.020)	0.591** (0.181)	1.138*** (0.185)	0.213* (0.108)	0.435* (0.221)	0.066 (0.175)	0.314** (0.117)
Constant	0.259 (0.566)	-0.591** (0.222)	-5.069 (2.732)	-0.932 (1.536)	4.352 (6.158)	-1.410** (0.457)	-0.823 (0.485)	-0.621 (0.985)
Observations	36	20	25	15	23	24	55	231
R2	0.441	0.500	0.557	0.857	0.288	0.385	0.018	0.216
Adjusted R2	0.325	0.269	0.410	0.750	0.021	0.169	-0.104	0.195
F Statistic	3.813** (df = 6; 29)	2.164 (df = 6; 13)	3.774* (df = 6; 18)	8.017** (df = 6; 8)	1.079 (df = 6; 16)	1.777 (df = 6; 17)	0.149 (df = 6; 48)	10.283*** (df = 6; 224)

Note: \*p<0.05; \*\*p<0.01; \*\*\*p<0.001;p<0.05; \*\*p<0.01; \*\*\*p<0.001\*p<0.05; \*\*p<0.01; \*\*\*p<0.001\*p<0.05; \*\*p<0.01; \*\*\*p<0.001\*p<0.05; \*\*p<0.01; \*\*\*p<0.001\*p<0.05; \*\*p<0.01; \*\*\*p<0.001\*p<0.05; \*\*p<0.01; \*\*\*p<0.001\*p<0.05; \*\*p<0.01; \*\*\*p<0.001\*p<0.05; \*\*p<0.01; \*\*\*p<0.001\*p<0.05; \*\*p<0.01; \*\*\*p<0.001



**Table A18: Regression Results of DIRECTION on Changes in Local Stock Prices (10-day Event Window) for Each Country**

	Dependent variable:	Dependent variable:	Dependent variable:	Dependent variable:	Dependent variable:	Dependent variable:	Dependent variable:	Dependent variable:
	CZ10 10-day	DE10 10-day	ES10 10-day	FR10 10-day	GR10 10-day	IE10 10-day	SE10 10-day	UK10 10-day
Tightening	0.043 (0.094)	-0.132* (0.053)	-0.080 (0.079)	-0.198*** (0.029)	0.352*** (0.051)	-0.004 (0.019)	-0.048 (0.051)	-0.046 (0.037)
Loosening	-0.263 (0.297)	0.318* (0.133)	0.301 (0.202)	-0.653*** (0.161)	-0.178 (0.102)	0.047 (0.189)	-0.026 (0.070)	-0.101 (0.089)
Change in Euribor	-0.117 (0.121)	-0.335** (0.128)	0.348* (0.150)	1.384* (0.688)	0.054 (0.324)	0.147 (0.077)	0.288*** (0.083)	0.044 (0.064)
Change in Exchange Rate	-0.086*** (0.020)	-0.415*** (0.054)	-0.089* (0.045)	-0.103*** (0.007)	-0.567*** (0.042)	-0.128*** (0.016)	-0.136*** (0.012)	-0.178*** (0.032)
Change in S&P 500	1.589* (0.690)	2.842*** (0.250)	0.052 (0.540)	3.055*** (0.330)	7.742*** (0.901)	-0.983* (0.498)	1.040 (1.229)	-0.171 (0.550)
Lagged Change in Stock Prices	0.125 (0.089)	-0.033 (0.084)	-0.096 (0.245)	-0.042 (0.071)	0.011 (0.050)	0.094 (0.113)	0.0003 (0.049)	0.094* (0.044)
Constant	0.146 (0.651)	0.970*** (0.221)	0.981*** (0.220)	-0.072 (0.258)	-2.193*** (0.230)	-0.729*** (0.160)	-2.087*** (0.360)	0.669** (0.214)
Observations	36	20	25	15	23	24	55	231
R2	0.666	0.875	0.573	0.871	0.903	0.807	0.634	0.509
Adjusted R2	0.597	0.817	0.431	0.774	0.867	0.738	0.589	0.496
F Statistic	9.630*** (df = 6; 29)	15.144*** (df = 6; 13)	4.026** (df = 6; 18)	9.013** (df = 6; 8)	24.905*** (df = 6; 16)	11.811*** (df = 6; 17)	13.887*** (df = 6; 48)	38.660*** (df = 6; 224)
Note:	*p<0.05; **p<0.01; ***p<0.001							



**Table A19: Regression Results of TIGHTENING on Changes in Yield (Short-Term Window and Long-Term Window)**

	Dependent variable: diff_yield_1 1-day	Dependent variable: diff_yield_2 2-day	Dependent variable: diff_yield_3 3-day	Dependent variable: diff_yield_4 4-day	Dependent variable: diff_yield_5 5-day	Dependent variable: diff_yield_10 10-day
Tightening	0.015 (0.010)	0.020* (0.009)	0.010 (0.009)	0.015 (0.009)	0.006 (0.005)	0.0003 (0.004)
Change in Euribor	0.336*** (0.071)	0.298*** (0.056)	0.285*** (0.058)	0.038 (0.041)	0.081* (0.037)	0.014 (0.035)
Change in Exchange Rate	2.144* (0.940)	0.915 (0.739)	0.414 (0.485)	0.387 (0.588)	0.134 (0.316)	0.049 (0.252)
Change in S&P 500	0.204 (0.557)	0.460 (0.476)	0.178 (0.334)	0.312 (0.433)	0.065 (0.237)	0.123 (0.103)
Lagged Change in Yield	-0.181* (0.083)	0.307 (0.221)	0.450*** (0.109)	0.676*** (0.102)	0.711*** (0.073)	0.842*** (0.066)
Constant	-0.007 (0.006)	-0.020* (0.009)	-0.018 (0.011)	-0.031 (0.018)	-0.015 (0.012)	-0.001 (0.017)
Observations	501	500	499	498	497	493
R2	0.389	0.407	0.459	0.544	0.594	0.782
Adjusted R2	0.383	0.401	0.453	0.539	0.590	0.780
F Statistic	62.998*** (df = 5; 495)	67.809*** (df = 5; 494)	83.644*** (df = 5; 493)	117.302*** (df = 5; 492)	143.580*** (df = 5; 491)	349.000*** (df = 5; 487)

Note: \*p<0.05; \*\*p<0.01; \*\*\*p<0.001

**Table A20: Regression Results of TIGHTENING on Changes in STOXX (Short-Term Window and Long-Term Window)**

	Dependent variable: diff_stoxx_1 1-day	Dependent variable: diff_stoxx_2 2-day	Dependent variable: diff_stoxx_3 3-day	Dependent variable: diff_stoxx_4 4-day	Dependent variable: diff_stoxx_5 5-day	Dependent variable: diff_stoxx_10 10-day
Tightening	-0.001 (0.001)	0.0004 (0.001)	0.001 (0.001)	0.002 (0.001)	0.002 (0.001)	0.001 (0.001)
Change in Euribor	-0.014 (0.010)	-0.012 (0.011)	-0.004 (0.006)	-0.024 (0.018)	-0.005 (0.008)	0.002 (0.007)
Change in Exchange Rate	0.410*** (0.058)	0.315*** (0.062)	0.256** (0.088)	0.322*** (0.055)	0.376*** (0.050)	0.219** (0.073)
Change in S&P 500	0.864*** (0.081)	0.795*** (0.076)	0.739*** (0.040)	0.740*** (0.063)	0.710*** (0.063)	0.512*** (0.056)
Lagged Change in STOXX	-0.024 (0.084)	0.192* (0.095)	0.318*** (0.032)	0.342*** (0.038)	0.326*** (0.059)	0.502*** (0.049)
Constant	-0.001 (0.001)	-0.002 (0.001)	-0.004* (0.002)	-0.007* (0.003)	-0.008* (0.003)	-0.009 (0.005)
Observations	501	500	499	498	497	493
R2	0.657	0.738	0.844	0.867	0.874	0.925
Adjusted R2	0.654	0.735	0.843	0.866	0.873	0.925
F Statistic	189.620*** (df = 5; 495)	278.080*** (df = 5; 494)	534.778*** (df = 5; 493)	641.379*** (df = 5; 492)	683.583*** (df = 5; 491)	1,208.531*** (df = 5; 487)
Note:	*p<0.05; **p<0.01; ***p<0.001 *p<0.05; **p<0.01; ***p<0.001 *p<0.05; **p<0.01; ***p<0.001 *p<0.05; **p<0.01; ***p<0.001 *p<0.05; **p<0.01; ***p<0.001 *p<0.05; **p<0.01; ***p<0.001					

**Table A21: Regression Results of LOOSENING on Changes in Yield (Short-Term Window and Long-Term Window)**

	Dependent variable: diff_yield_1 1-day	Dependent variable: diff_yield_2 2-day	Dependent variable: diff_yield_3 3-day	Dependent variable: diff_yield_4 4-day	Dependent variable: diff_yield_5 5-day	Dependent variable: diff_yield_10 10-day
Loosening	0.053 (0.054)	0.048 (0.040)	0.072* (0.035)	0.065* (0.028)	0.061* (0.026)	0.030 (0.016)
Change in Euribor	0.332*** (0.059)	0.298*** (0.051)	0.282*** (0.055)	0.043 (0.037)	0.084* (0.036)	0.018 (0.030)
Change in Exchange Rate	2.146* (1.016)	0.876 (0.763)	0.402 (0.472)	0.349 (0.637)	0.103 (0.325)	0.031 (0.235)
Change in S&P 500	0.216 (0.642)	0.457 (0.496)	0.207 (0.326)	0.352 (0.473)	0.105 (0.227)	0.148 (0.100)
Lagged Change in Yield	-0.182* (0.083)	0.305 (0.218)	0.449*** (0.100)	0.673*** (0.078)	0.703*** (0.076)	0.835*** (0.059)
Constant	-0.003 (0.006)	-0.007 (0.007)	-0.015 (0.009)	-0.016 (0.009)	-0.014 (0.009)	-0.011 (0.008)
Observations	501	500	499	498	497	493
R2	0.391	0.406	0.470	0.551	0.605	0.785
Adjusted R2	0.384	0.400	0.464	0.546	0.601	0.783
F Statistic	63.455*** (df = 5; 495)	67.591*** (df = 5; 494)	87.383*** (df = 5; 493)	120.690*** (df = 5; 492)	150.229*** (df = 5; 491)	355.178*** (df = 5; 487)
Note:	*p<0.05; **p<0.01; ***p<0.001 *p<0.05; **p<0.01; ***p<0.001 *p<0.05; **p<0.01; ***p<0.001 *p<0.05; **p<0.01; ***p<0.001 *p<0.05; **p<0.01; ***p<0.001					



**Table A22: Regression Results of LOOSENING on Changes in STOXX (Short-Term Window and Long-Term Window)**

	Dependent variable: diff_stoxx_1 1-day	Dependent variable: diff_stoxx_2 2-day	Dependent variable: diff_stoxx_3 3-day	Dependent variable: diff_stoxx_4 4-day	Dependent variable: diff_stoxx_5 5-day	Dependent variable: diff_stoxx_10 10-day
Loosening	-0.013 (0.007)	-0.007 (0.005)	-0.001 (0.005)	0.003 (0.003)	0.003 (0.005)	0.002 (0.002)
Change in Euribor	-0.013 (0.007)	-0.012 (0.009)	-0.004 (0.006)	-0.023 (0.020)	-0.004 (0.007)	0.003 (0.007)
Change in Exchange Rate	0.409*** (0.062)	0.315*** (0.055)	0.255** (0.085)	0.316*** (0.059)	0.371*** (0.034)	0.206** (0.069)
Change in S&P 500	0.862*** (0.095)	0.798*** (0.078)	0.739*** (0.041)	0.737*** (0.064)	0.706*** (0.059)	0.503*** (0.052)
Lagged Change in STOXX	-0.029 (0.082)	0.185* (0.093)	0.319*** (0.032)	0.349*** (0.034)	0.334*** (0.059)	0.511*** (0.047)
Constant	-0.001 (0.001)	-0.001 (0.001)	-0.003* (0.001)	-0.003* (0.002)	-0.004* (0.002)	-0.006*** (0.002)
Observations	501	500	499	498	497	493
R2	0.664	0.740	0.844	0.866	0.873	0.925
Adjusted R2	0.661	0.738	0.842	0.864	0.872	0.925
F Statistic	195.634*** (df = 5; 495)	281.596*** (df = 5; 494)	533.738*** (df = 5; 493)	635.004*** (df = 5; 492)	676.615*** (df = 5; 491)	1,207.948*** (df = 5; 487)
Note:	*p<0.05; **p<0.01; ***p<0.001					