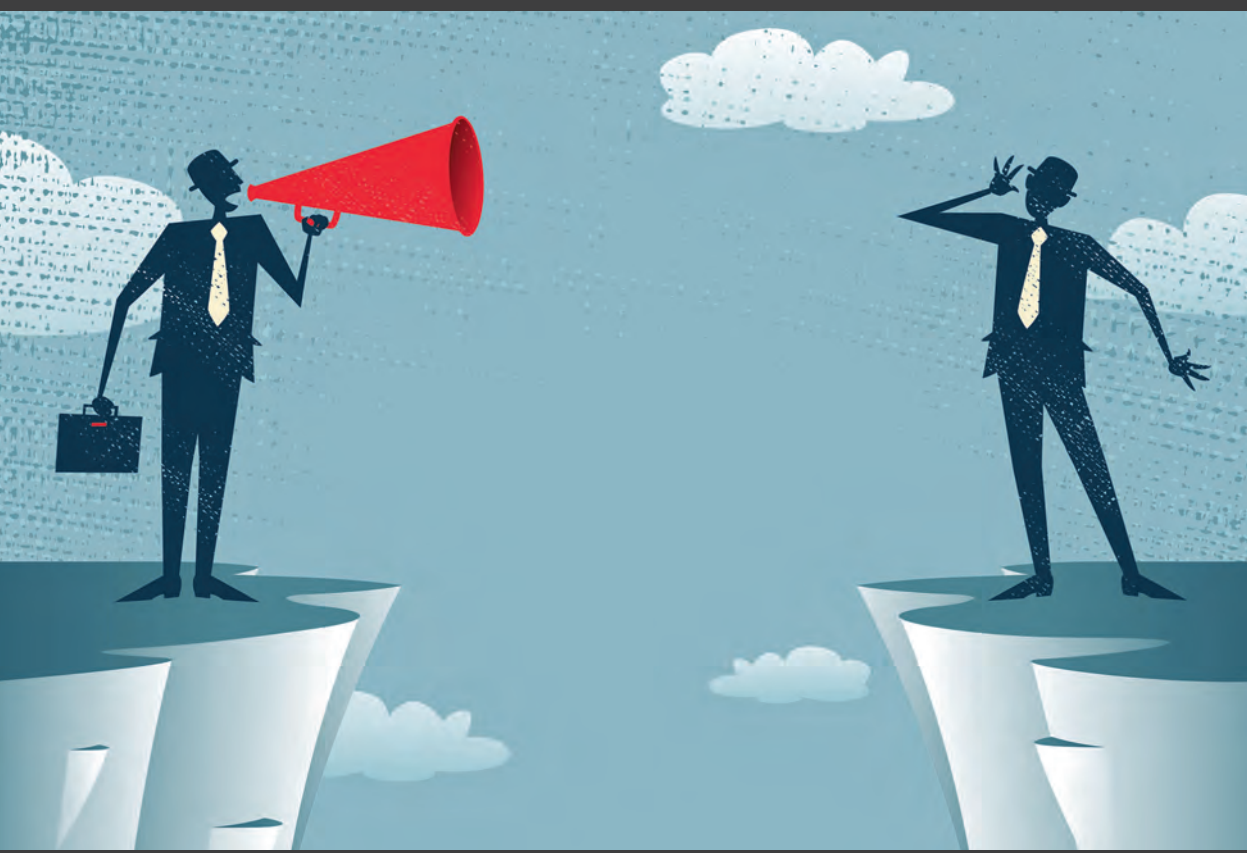
Xingyu Zhu

ESSAYS ON INFORMATION DISSEMINATION IN FINANCE



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To my parents

Foreword

This volume is the result of a research project carried out at the Department of Finance at the Stockholm School of Economics (SSE).

This volume is submitted as a doctoral thesis at SSE. In keeping with the policies of SSE, the author has been entirely free to conduct and present her research in the manner of her choosing as an expression of her own ideas.

SSE is grateful for the financial support provided by the Jan Wallander and Tom Hedelius Foundation which has made it possible to carry out the project.

Göran Lindqvist

Director of Research
Stockholm School of Economics

Per Strömberg

Professor and Head of the
Department of Finance
Stockholm School of Economics

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I am also very grateful to my friends, without whom my life in Stockholm would never have been so enjoyable. I thank Liang, Xiaowen, and Ya for visiting me and sharing with me many fun memories. I also thank Yapei and Yao for the wonderful swimming

time we spent together at Eriksdalsbadet. I am most grateful to my friend Tim for always being supportive and kind.

Finally, I am forever indebted to my parents, my brother, and my boyfriend for their unconditional support, which helped me get through the hardest times in this journey. Their love has made me a stronger and better person than I was.

Stockholm, April 22, 2021
Xingyu Zhu

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Introduction

In financial markets, the arrival of information shapes investors' and firm managers' expectations of future cash flows every day. The dissemination of information can therefore affect investors' demand and firms' willingness to supply, and ultimately determine the equilibrium price and allocation of securities.

This doctoral thesis is a collection of three independent essays on information dissemination in financial markets. More specifically, in this thesis, I analyze the change in price, trading volume, market liquidity, and so on in financial markets in response to two important types of informative events— monetary policy announcements in the first two essays, and firms' earnings announcements in the third essay.

* * *

On the day ahead of the U.S. Federal Reserve's August policy meeting in 2001, an article in the Wall Street Journal reads "Trading is on hold as investors await news from Fed meeting." What prevents investors from trading in anticipation of the Federal Operation Market Committee monetary policy decisions, despite trading during these periods being profitable according to previous research? In my first essay, *Volume Dynamics around FOMC Announcements*, I examine investors' trading motives around announcements of scheduled Federal Operation Market Committee monetary policy decisions (FOMC announcements).

In contrast to existing literature, I emphasize the cross-sectional perspective of volume dynamics. Using firm-level high-frequency price and volume data for over 20 years, I find, in the cross-section, that stocks with higher market risk exposure experience greater volume changes around FOMC announcements. Furthermore, I find that the volume dynamics are unlikely to be attributable to changes in volatility. Instead, they are linked to discretionary liquidity trading resulting from the presence of private information. I set up a model that guides my empirical investigation of the information environment in the stock market around FOMC announcements. Consistent with the model's implication, volume dynamics are accompanied by changes in the information environment. I find that information asymmetry increases ahead of FOMC announcements, but only for high-beta stocks.

* * *

My second essay, *Inflation Compensation and Monetary Policy*, is a joint work with Vasilis Dedes. In this paper, we study two market-based measures of inflation compensation, and use them to understand the transmission mechanism of Federal Operation Market Committee monetary policy shocks to inflation markets.

More specifically, we decompose monetary policy shocks into two orthogonal channels: the policy channel, measured by the change in 2-year nominal Treasury yield, and the communication channel, measured by the orthogonal change in 10-year nominal Treasury yield. We show that the conventional monetary policy affects long-term market-based inflation compensation through the communication channel, while the unconventional monetary policy affects short-term market-based inflation compensation through the policy channel. Our analysis also indicates that an announcement of quantitative easing corrects the short-term mispricing between the two inflation compensation measures, but amplifies long-term mispricing.

* * *

Besides monetary policy shocks, firms' earnings conference calls are also important information sources for asset valuation. In my joint work with Xin Zhang, *When Analysts Speak with Managers, Do Investors Learn?*, we analyze market liquidity and stock returns around firms' earnings calls.

The past literature mostly focuses on the communication strategies of analysts or firm managers in earnings calls. By contrast, we ask whether uninformed investors learn from the conversations between analysts and managers. We measure the conversation sentiment in an earnings call with natural language processing tools. We find that an optimistic conversation between managers and analysts resolves information asymmetry more than a pessimistic one does. Moreover, stock prices appreciate after an optimistic conversation. Our findings are consistent with the explanation that uninformed investors consider analysts' connectivity to the firm management an important public signal, and learn such information by listening to the firm-analyst conversation.