PROPOSAL

The unintentional consequences of regulatory regime changes: Insider trading activities surrounding bond rating changes

Submitted to:
Montana State University Proposed Center for Regulation and Applied Economic Analysis (CRAEA)

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Abstract
We propose an empirical test of insider trading activities across three regulatory regimes: Pre-Regulation Fair Disclosure, post-Regulation Fair Disclosure and pre-Dodd-Frank, and post-Dodd-Frank. We argue that Regulation Fair Disclosure (RegFD) gave bond ratings analysts an informational advantage over other market participants. This informational advantage was intended to make bond ratings more accurate. An unintentional consequence of the exemption for bond analysts from RegFD was a larger impact on bond ratings changes on stock returns due to the implied inclusion of nonpublic information contained in those changes (see Dimitrov, Palia, & Tang, 2015). This stronger association between ratings changes and stock returns made possible larger insider trading profits as corporate insiders could capitalize on their prior knowledge of upcoming bond ratings changes. We propose to test whether corporate insiders increase insider trading activity in the period between ratification of RegFD and implementation of Dodd-Frank, which we call the inter-regulatory period.

Specific Aims
Prior to RegFD, which was ratified by the SEC in October 2000, companies were basically free to discuss their business outlooks with whomever they pleased, and to exclude from such discussions anyone they pleased. Companies could disclose information to favored financial analysts who then had an unfair informational advantage over other analysts and the general public. RegFD was implemented in order to level the playing field by requiring companies to disclose any and all material information to all members of the public simultaneously, with only one exception. Companies could continue to disclose non-public information to analysts at credit ratings agencies (CRAs). The Dodd-Frank Wall Street Reform and Consumer Protection Act (DF) revoked this exemption, thus eliminating the informational advantage provided by RegFD to CRAs. During this inter-regulatory period, after RegFD was ratified and before DF was implemented, CRAs had an informational advantage over other market participants.

DF was signed into law in July 2010 as a political backlash against the finance industry. The United States had just emerged from one of the worst recessions in history, a recession some accused the finance industry of precipitating. In this view, CRAs intentionally assigned unwarranted high ratings to mortgage-backed securities (MBS) in order to continue to book high profits from the MBS's creators. These MBS, with their associated high ratings, were then sold to financial institutions all over the world as low-risk investments. When the subprime borrowers, whose mortgages provided much of the collateral for these MBS, began to default, large global institutions were put at risk of bankruptcy, thus resulting in the bank bailout. DF, in part, revoked the CRA exemption from RegFD, thus ending their information advantage over other market participants.

Replicating Dimitrov, we expect to find that credit ratings changes had stronger influences on stock market returns during the inter-regulatory period than in the pre-RegFD and post-DF periods. We posit that stronger stock market returns during this period, in turn, created an environment in which insider trading became more profitable. Combining this opportunity for profitable insider trading with what we will argue is a low chance of detection, we posit that insider trading activity is relatively higher surrounding credit ratings changes during the inter-regulatory period than during the pre-RegFD and post-DF periods.

Significance
We believe the significance of our intended work for regulatory authorities will be in pointing out the cost of not fully considering all consequences of a change in regulations. In this case, a well-intentioned attempt to level the investments playing field, while still allowing CRAs access to the information needed to assign accurate credit ratings, may have led to an environment conducive to abuses of insider trading laws.

Innovation
Our innovation is a fresh look at the unintended consequences of regulatory changes using the inter-regulatory period between ratification of RegFD and implementation of DF. As noted above, this inter-regulatory period gave CRAs an informational advantage, which consequentially made their ratings changes more informationally valuable. As part of their ratings process, CRAs notify corporate insiders prior to releasing ratings changes to the public, thus giving insiders an informational advantage over other market participants. This combination of more valuable information and prior knowledge, we posit, gives some insiders a strong incentive to trade on their prior knowledge. Thus, a well-intentioned fair-play regulation ultimately increased unfair profitable insider trading activities.

Approach (Design and Methods)

Our research design includes collecting and evaluating data from varied sources. Our primary data on insider trading activities come from the Thomson Reuters insider filings database. Section 16a of the Securities and Exchange Act of 1934 requires that open market trades by corporate insiders be reported to the SEC within 10 days after the end of the month in which they took place. This 10-day deadline was later changed to a two-day deadline in 2002. We plan to collect credit rating actions from Capital IQ S&P data services, which includes bond rating actions for all corporate bonds rated by Standard & Poor's. Stock pricing data will be collected

from the Center for Research in Securities Prices (CRSP), while company financial data will be collected from Compustat.

The primary variable of interest is insider trading activity in the period surrounding credit rating changes. If the CRAs have an informational advantage in the 10-year inter-regulatory period, and insiders recognize that ratings changes are more informative during this period, we should see higher insider trading activity during this period relative to the pre-RegFD and post-DF periods. For robustness, we plan to employ five measures of the level of insider trading: (1) the number of insiders trading, (2) the number of shares traded, (3) the dollar value of shares traded, (4) the percentage of equity traded, and (5) the percentage of insider shares traded.

We plan to first test whether or not insider trading activity is elevated in the 10-year inter-regulatory period relative to the pre-RegFD and post-DF periods. Next we plan to employ regression analysis in order to control for firm-level variables that may help explain the insider trading activity, as well as for firm and time fixed-effects.

Human Subjects – The proposed research does not involve human subjects.

Itemized Budget

Summer stipend – Dr. Caton	
Summer stipend – Dr. Yang	
Conference travel expenses	

Project Timeline
While we hope to get started on this project early, due to teaching duties, the prime period for uninterrupted research is summer. The following is a tentative schedule with this in mind:

Timeline Month:		Jan-Mar	Apr-Jun	Jul-Sep	Sep-Dec
Task	Hours				
Literature review	100	■	■		
Data collection	100	■	■		
Data formatting and analysis	100	■	■		
Writing, local presentation	300		■	■	
Revision & submission to conference	100			■	
Revision & submission to journal	150				■

Drs. Caton and Yang will work concurrently on the first three tasks, with Caton completing the literature review while Yang completes the data collection, formatting and analysis. Dr. Caton will write the manuscript during the time leading up to and through the summer with the goal of a draft working paper being ready for local presentation and conference submission before the beginning of the school year in late August. Using comments from seminar participants, Caton, Yang and Goh will work on polishing the working paper for journal submission in late 2017.

This project is part of a two-part series of studies associated with this inter-regulatory period, each of which will feature the results of a pilot study we have done that identifies significantly greater stock market reactions to credit rating changes during the inter-regulatory period, relative to the pre-RegFD and post-DF periods. The above proposed project is the first in the series, which focuses on insider trading. The second project, which is not part of this proposal, but overlaps two coauthors (Caton and Goh) is a study of the abnormal forecast revisions of earnings analysts to credit ratings actions in the same three regulatory environments with the underlying premise being that earnings analysts follow credit rating actions more closely during the inter-regulatory period.

Caton, Goh and Yang all have extensive experience working with credit rating changes. See, for example: Ederington, Guan and **Yang** (2015); **Caton**, Chiyachantana, Chua and **Goh** (2011); and **Goh** and Ederington (1993). This proposed research project is not only in our area of expertise, but it also brings to bear our combined experience with and knowledge of bond ratings research on the new areas of insider trading and regulatory changes.

References

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