DISSERTATION PROPOSAL

Aluna Wang

"Essays on Information Transmission Mechanisms"

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Financial institutions create value by collecting and processing information (Liberti and Petersen 2018; Egan, Lewellen, and Sunderam 2019). In credit markets, banks accumulate soft information about borrowers over the course of lending relationships (Rajan 1992; Berger and Udell 1995). The first chapter of my dissertation examines information transmission between firms and banks through lending relationships. I exploit hand-collected data on bank mergers and cross-sectional variation in borrowers' pre-merger exposure to acquirer and target banks to study how bank organizational structure shapes lending relationships and affects borrowers' outcomes through this relationship channel. I find that borrowers with pre-merger lending relationships with the target bank are much less likely to access post-merger credit from the consolidated bank. This effect is stronger for lending relationships in which soft information is more important, consistent with a change in information acquisition and processing in the consolidated bank. Moreover, I find that these informational frictions have real effects. The target bank's pre-merger borrowers suffer from the relationship disruption: they reduce investment and lay off employees.

In my second chapter, I investigate information transmission between banking institutions and other banking market participants (e.g., regulators, competitors, investors, or depositors). Banking institutions with a class of securities registered under Section 12 of the Securities Exchange Act of 1934 are subject to disclosure regulations by two types of regulators: the *financial stability regulators* such as the Federal Reserve, OCC, or FDIC and the *market integrity regulator*—the SEC (Spatt, 2010). However, the SEC allows these institutions to exit its disclosure system (i.e., "go dark") by filing to deregister when they meet specific threshold-based criteria. In this chapter, I ask how does this reduced commitment to disclosure affect banking operations, and does the exit from the *market integrity* disclosure system have spillover effects on the *stability* of banking institutions? To address these questions, I examine a sample of banking institutions that newly qualified to deregister from the SEC under the JOBS Act of 2012 and the FAST Act of 2015. These Acts increased the threshold for unlisted bank holding companies (BHCs) and savings and loan holding companies (SLHCs) to deregister from 300 to 1,200 shareholders of record, respectively. I will exploit the change in this issuer size cutoff in a quasi-experimental design to identify the causal effects of SEC deregistration on banking operations and financial stability.

The third chapter is based on interdisciplinary work with my collaborators Leman Akoglu, Dimitris Berberidis, and Pierre Jinghong Liang. In this chapter, we focus on a core problem of financial accounting and reporting as an information transmission mechanism—data compression. Financial accounting is a system that "translates" the complex reality (as represented by a large volume of financial transactions) into classified financial statements that users can comprehend, interpret, manipulate, and legally reference. This data compression process requires classification of financial flows and aggregation of accounting numbers, which involves tradeoffs and information loss. We use a graph representation of accounting journal entries and aim to develop a graph learning method that can quantify the information loss induced by accounting aggregation, evaluate informational properties of alternative accounting classification schemes, and provide insights into accounting misclassification and disaggregation.