KAUFFMAN DISSERTATION EXECUTIVE SUMMARY

KAUFFMAN
ENTREPRENEURSHIP SCHOLARS

KAUFFMAN DISSERTATION FELLOWSHIP

Part of the Ewing Marion Kauffman Foundation's Entrepreneurship Scholars initiative, the Kauffman Dissertation Fellowship recognizes exceptional doctoral students and their universities. The annual program awards Dissertation Fellowship grants to Ph.D., D.B.A., or other doctoral students at accredited U.S. universities to support dissertations in the area of entrepreneurship.

Since its establishment in 2003, this program has helped to launch world-class scholars into the exciting and emerging field of entrepreneurship research, thus laying a foundation for future scientific advancement. The findings generated by this effort will be translated into knowledge with immediate application for policymakers, educators, service providers, and entrepreneurs as well as high-quality academic research.

EWING MARION
KAUFFMAN
FOUNDATION

www.kauffman.org/kdf

Summary of Essays on Agency Costs of Financial Intermediation

Xin Xue

Abstract

A financial intermediary is a delegated monitor that produces information and adds value to capital allocation between market agents. A borrower, an entrepreneur or a firm obtains investments, and in return, the lenders or investors profit through interest payments or equity shares. These transactions are facilitated by intermediaries, such as banks, platforms or venture capitalists. As economic agents, financial intermediaries may not have their interest aligned with that of clients, which results in inefficient capital allocation, market failure and financial instability. In this dissertation, I study conflicts of interest in financial intermediation from different aspects.

Summary

Chapter 1

In this section, I present a crucial part of my first chapter, since I address various points in the first chapter. In the first chapter, I study the conflicts of interest in financial intermediation from the aspect of competition. Financial intermediation competition is a double-edged sword to the economy and welfare. On one hand, competition is essential to economic growth and entrepreneurship. Intermediary competition induces less expensive cost of capital such as lower loan prices. Cetorelli and Strahan (2006) analyze data from U.S. local banks and find that potential entrepreneurs face greater difficulty gaining access to credit where banking is less competitive. On the other, large amount of literature documents that competition can induce intermediaries' agency problem, which engenders financial instability and economic fragility. Becker and Milbourn (2011) document such phenomenon in the credit rating agency market. They find that when Fitch enters to compete with S&P and Moody's on credit rating, the incumbents, S&P and Moody's, manipulate their credit rating schemes to inflate borrowers' rating lower their rating quality by credit inflation. They show that the loan performance deteriorates and the credit rating becomes less informative in predicting loan default.

Since an intermediary is the "middle man" between its clients and counter-clients, to maximize its long term value, it has to balance its interest alignments with both sides. However, Competition distorts intermediaries' interest alignments. Since investors do not direct observe intermediaries' information on borrowers, they heavily rely on the information aggregated and provided by intermediaries. With more intermediaries in the market, borrowers shop for the least expensive rate. Since intermediaries profit from borrower attendance and loan origination, they undercut each other's interest rates by inflating borrowers' credit ratings and reporting untruthful information to investors. (Bolton et. al. 2012)

In this paper, I study intermediary competition using personal loan data from peer-to-peer lending platforms, Lending Club and Prosper. Peer-to-peer lending is a type of crowdfunding that matches individual borrowers and crowd investors, including individuals and institutions such as banks and pension funds. A peer-to-peer lending platform collects borrowers' information and posts it online to attract investments and profits from loan origination.

I study platform competition in a quasi-experiment setting by using an exogenous platform entry event, after which a platform monopoly becomes a duopoly. In a monopoly, every borrower showed up at the incumbent platform, since they have no other choice in this market. In a duopoly, borrowers can apply loans at both platforms, but only choose the cheapest interest rate between the two (rate-shopping behavior). On one hand, I show evidence that the incumbent platform becomes less prudent following the entry event. First, controlling for borrowers' observable characteristics and credit history, a borrower is 4% more likely to be accepted by the incumbent platform, given that the original acceptance rate was only 6%. Additionally, I find that the accepted borrowers are 10% more likely to be given a creditworthy loan rating compared to the pre-entry period. The loans originated during the post-entry period exhibits worse performance; borrowers are more likely to default and their returns on investment decrease. On the other hand, I show faster economic growth and increasing entrepreneurial activities as a result of the competition. The market size and total loan proceeds soon double following the entry event. The conflicts of interest induced by competition raise bigger questions on what the optimal competition intensity is for a market or at large, for an economy. How much competition does the economy need to balance between the welfare loss from competition-induced bad loans and the welfare gain from competition-induced economic activities?

Chapter 2

Titled “Investment Bank Governance and Client Relationships”, the second chapter of my dissertation is coauthored with Professors Wilhelm (UVa), Chen (UVa) and Morrison (Oxford). We study how technological advancement induces investment banks’ complexity and subsequently trust breakdown from their clientele.

Investment banking is not what it used to be. Investment banks were once partnerships whose employees formed close-knit social communities (Pak 2013). Partners had long tenure, seldom moved between banks, and formed long-lived relationships with their clients; they appeared to be more concerned with their reputational than their financial capital. In contrast, modern investment banking is dominated by very large, complex, publicly-owned firms that increasingly struggle to address internal conflicts of interest. Labor mobility is high among today’s senior bankers, and bank-client relationships have weakened steadily for almost a half century. Many observers have expressed concerns that behavioral standards have declined in financial firms. The spirit of these concerns was captured in a 2013 speech by William Dudley, the president of the Federal Reserve Bank of New York. President Dudley identified “deep-seated cultural and ethical failures” in the banking sector, as well as an “apparent lack of respect for law, regulation, and public trust.” But he also noted that it is hard to determine whether these failures are a consequence of “size and complexity, bad incentives or some other issues”.

This paper examines the effect that the increasing scale and complexity of investment banks has had on their relationships with securities issuers. We claim that close relationships both engender and require mutual trust. Trust is valuable because investment bankers are better informed than their clients about market conditions and the transactions on which they advise and often face conflicts of interest stemming from their intermediary role. Formal contract is insufficient to prevent bankers from abusing their superior knowledge. A trust-based relationship can therefore be a rational response to agency problems within banks. But both parties to a relationship bear opportunity costs. Issuers forgo competitive bidding for their underwriting mandates; banks may decline business that poses a threat to their client relationships; and each party to the relationship may sacrifice an opportunity to match with a counterparty that is more complementary to its requirements or capabilities (Fernando, Gatchev, and Spindt 2005).

We consider the costs and benefits of relationships and how internal governance of an investment bank affects the strength of its client relationships. We argue that, if a bank's internal governance weakens, it becomes less able to control employee opportunism. This makes it more costly for the bank to keep the promises that underpin its long-term relationships, and from which those relationships derive their value. It follows that anything that weakens an investment bank's internal governance should increase the likelihood that its clients switch to a different bank. In particular, we argue that it is harder to govern a more complex bank, so that increases to a bank's complexity should weaken its client relationships.

We test this hypothesis using a sample of debt and equity issues that were brought to market between January 1960 and December 1998 by issuers who had a prior relationship with one of 30 sample banks. We estimate models in which securities issuers condition their decision to break or to continue a relationship on three measures of bank complexity that are intended to proxy for the unobservable underlying agency problem: bank capital, the number bank partners or comparable senior officers, and discrete changes in organizational structure. It is worth noting that banks that are more complex judged by these measures often are able to offer a wider range of services and can draw from a larger pool of human resources for their delivery. As a consequence, finding evidence in favor of our hypothesis will indicate that any benefits associated with greater scale and scope of operations are dominated by the costs of complexity.

Chapter 3

Titled “Optimal Equity Financing Contracts and Private Monitoring”, I build a theoretical model to study how venture capitalist monitoring improves the contract efficiency between venture capitals and entrepreneurs and how monitoring induces agents’ effort. Unable to observe how much effort an entrepreneur/worker devotes, venture capitalists may not be willing to make an investment. Holmstrom (1979) gives out a solution, where the contract payout is contingent on the outcome of the project. This incentive scheme is denoted as pay for performance.

In this paper, I assume that the venture capitalists can actively monitor the entrepreneurs’ effort at an expense. However, since effort level is not verifiable in court or by any third party in general, effort cannot be written into a contract. I design a contingent contracting mechanism, where it entitles the VC to credibly punish the entrepreneur and is incentive compatible so that punishment only happens upon negative information. Compared to the 'pay for performance' scheme, monitoring improves the VC's payoff by: (1) a higher promised equity share to the VC and (2) a higher project value with a higher marginal return to investment.

Reference

- Becker, Bo, and Todd Milbourn. "How did increased competition affect credit ratings?." *Journal of Financial Economics* 101.3 (2011): 493-514.
- Bolton, Patrick, Xavier Freixas, and Joel Shapiro. "The credit ratings game." *The Journal of Finance* 67.1 (2012): 85-111.
- Cetorelli, Nicola, and Philip E. Strahan. "Finance as a barrier to entry: Bank competition and industry structure in local US markets." *The Journal of Finance* 61.1 (2006): 437-461.
- Fernando, Chitru S., Vladimir A. Gatchev, and Paul A. Spindt. "Wanna dance? How firms and underwriters choose each other." *The Journal of Finance* 60.5 (2005): 2437-2469.
- Hölmstrom, Bengt. "Moral hazard and observability." *The Bell journal of economics* (1979): 74-91.
- Pak, S. J., 2013, Gentlemen Bankers: The World of J. P. Morgan, Harvard University Press.

Takeaway Points

1. Intermediary (banks, crowdfunding platforms and so on) competition may motivate entrepreneurial activities, but also should be monitored by policymakers, since competition induces intermediary conflicts of interest and economy fragility.
2. Firms' security issuance has dramatically changed in the past 4 decades. Technology advancement induced investment bank complexity and weakened investment bank internal governance. Firms' underwriter choices are no longer heavily dependent upon their relationship with investment banks but more based on "arms-length" competition among banks.