

## Michael Varley

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RESEARCH INTERESTS	Real Estate, Banking, Corporate Finance, Household Finance
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EDUCATION	<b>University of Chicago</b> Ph.D. Candidate, Joint Program in Financial Economics 2018-2024	
	<b>University of Florida</b> B.A., Economics & Mathematics 2010-2014	

REFERENCES	<b>Amir Sufi</b> (Chair) Bruce Lindsay Distinguished Service Professor of Economics and Public Policy University of Chicago Booth School of Business amir.sufi@chicagobooth.edu (773) 702-6148	<b>Pascal Noel</b> Neubauer Family Associate Professor of Finance University of Chicago Booth School of Business pascal.noel@chicagobooth.edu (773) 834-1407
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JOB MARKET PAPER	<b>Contractual Lock-in: Mortgage Prepayment Penalties and Mobility</b>
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**Abstract:** Do prepayment penalties lock-in borrowers, reducing mobility? Using monthly mortgage performance and borrower panel data, I study mobility before and after the expiration date of prepayment penalties. I find that borrowers increase mobility once the penalty expires, but show limited anticipatory mobility behavior as the expiration date approaches: while a penalty expiration leads to a 46% higher moving rate post-expiration relative to baseline moving rates in my sample, borrowers pre-expiration move in parallel. These expiration induced moves are to places with higher economic opportunities: the effect is just as strong for small and long distance moves and the moves are disproportionately to zipcodes with high levels of average income and high levels of upward income mobility. I then study what can explain these effects on mobility. I find that housing equity at the time the penalty expires is an important input into the mobility response of borrowers: very low and underwater LTV borrowers responses are muted, while most of the response comes from high, but < 100 LTV borrowers. I

interpret this finding to be consistent with credit constraints stemming from the housing market being an important financial friction to household mobility. These results imply that mortgage contract features can interact with credit market imperfections that result in large frictions to moves that would otherwise improve economic circumstances.

WORKING PAPERS    **The Unintended Consequences of Deregulation:  
Evidence from the Savings and Loan Industry**

**Abstract:** Regulating the balance sheets of financial intermediaries can lead to misallocation of capital that in the long run leads to suboptimal credit provision. However, large scale changes to regulatory frameworks can lead to massive disruptions in credit provision in the short run that can unravel an industry that deregulation was meant to help. To see how disruptive these short-run forces can be, I exploit the differential exposure the 1970s U.S. savings and loan (S&L) lenders had to the partial repeal of the government-imposed interest rate ceilings on their deposit accounts and find that even small increases in lender’s cost of funding leads to relatively large drops in mortgage origination—a 2SLS estimate gives a policy induced increase in deposit rates of 1 percentage point (14% increase from pre-period baseline) leads to a 40-50 percent drop in mortgage lending, or about a 3 percent drop in mortgage lending for each 1 percent increase in deposit rates. To help interpret the results, I build a simple banking model similar to Tobin (1982) and Kashyap and Stein (1995) to see how deregulation can lead to large quantity responses in a lender’s optimization problem, especially in an environment where the marginal cost of funding is increasing dramatically and the marginal revenue of loans adjusts relatively slowly. Despite a simple model, it provides a rich set of predictions that are borne out in the data. My research suggests that the timing of a policy can be an important determinant to its effectiveness.

WORKS IN  
PROGRESS    **Reclassification Risk in Mortgage Markets?  
Evidence from Prepayment Penalty Bans**

**Abstract:** I exploit variation induced by state bans of prepayment penalties on mortgages of a certain loan balance to study the extent mortgage markets are exposed to reclassification risk. Using difference-in differences and difference-in-discontinuities designs with administrative loan servicing data, I find that these bans were effective: the fraction of loans with a prepayment penalty decreases by around 70 to 80%. I also find, however, that interest rates and credit provision are largely unaffected by the ban: effects are statistically indistinguishable from zero and I can reject small levels of passthrough. Importantly, I also find no evidence of heterogeneous treatment across borrower risk profile: low credit score and high leverage individuals are most exposed to treatment, yet experience similar levels of (small) passthrough. I provide suggestive evidence that the lack of salience of these penalties may have inhibited them from being effective tools to insure reclassification risk.

**Household Discount Rates**

AWARDS AND GRANTS	Stigler Center PhD Dissertation Award and Bradley Fellow	2023-2024
	Rosen Memorial PhD Fellowship	2023-2024
	John and Serena Liew Fama-Miller Research Grant	2022-2024
	Financial Economics PhD Program Fellowship	2019-2023
	Kenneth C. Griffin Department of Economics PhD Fellowship	2018-2019
	Neubauer PhD Fellowship	2018-2019

TEACHING EXPERIENCE	PhD Corporate Finance II (TA for Amir Sufi) MBA Financial Markets and Institutions (TA for Doug Diamond)	2021-2023 2021-2022
CONFERENCES AND SEMINARS	<p><b>2023:</b> Amir Sufi's Corporate Finance Reading Group, Chicago Booth Finance Brownbag</p> <p><b>2022</b> Amir Sufi's Corporate Finance Reading Group, Chicago Booth Finance Brownbag, Economics Department Public/Labor Lunch Spring and Fall 2022, NBER Behavioral Public Economics Boot Camp</p> <p><b>2021</b> Amir Sufi's Corporate Finance Reading Group, Chicago Booth Finance Brownbag, Economic Dynamics Working Group, G3 Finance Student Seminar, Student Applied Microeconomics Lunch</p> <p><b>2020</b> G3 Finance Student Seminar, Macrofinance Student Workshop</p>	
OTHER EMPLOYMENT AND POSITIONS	<p><b>Princeton University</b> Julis-Rabinowitz Center for Public Policy and Finance Research Assistant to Atif Mian</p> <p><b>Federal Reserve Bank of St. Louis</b> Research Division Research Assistant to David Andolfatto and Guillaume Vandenbroucke</p>	2017-2018 2014-2016
ADDITIONAL INFORMATION	<p><b>Citizenship:</b> USA</p> <p><b>Languages:</b> English, Spanish</p> <p><b>Computer Skills:</b> Stata, Matlab, R, Python</p>	

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