Research Statement

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I. Overview

I am an applied microeconomist with research interests in credit markets and household finance, especially bankruptcy and financial distress. A guiding question is how institutions and credit markets affect households' abilities to smooth consumption. Much of the research aims to quantify the impact of specific policies, laws, and institutions, and my research often combines topics from economics, finance, and law.

One set of papers investigates the consumer bankruptcy system, with two main questions. First, what are the costs, benefits, and distortions generated by bankruptcy's asset exemptions? Asset exemptions are laws that protect specific assets from seizure by creditors. These exemptions vary tremendously across U.S. states and have been widely examined in empirical research. Still, basic questions remain open. My research uses new approaches and data sources to examine or reexamine fundamental questions about the trade-offs of more generous exemption protection. Second, what are the causes and effects of geographic heterogeneity in bankruptcy "local legal culture?" Although the Bankruptcy Code is a uniform federal law, legal research documents stark differences across locations in how the bankruptcy law is interpreted and applied. My research provides new empirical evidence on the causes and consequences of this geographic heterogeneity within the consumer bankruptcy system.

Another set of papers examines the interaction of credit markets with labor markets and entrepreneurship. Following my focus on financial distress, one guiding question is how credit markets affect individuals who are experiencing a large negative shock: unemployment. These papers show that the role of credit markets for unemployed households is complex. Informal credit available through late housing payments plays a large role. Additionally, credit not only helps smooth consumption but also affects job search directly as employers use credit reports in hiring decisions. Another set of papers extends the analysis to businesses and innovation I examine the competitive effects of a new credit model in small business lending – industry-specialized lenders- and the geographic distribution of lending and the production of creative works. Below, I discuss these papers and the direction of my future work.

II. Consumer Bankruptcy and Debtor Protections

Asset Exemptions and Consumption Insurance

The bankruptcy system creates a trade-off between a debtor's ability to smooth consumption *across* states of the world and the ability to smooth consumption over time. A lenient, debtor-friendly bankruptcy system helps debtors to smooth consumption over states of the world because they can escape their debt commitments when facing bad shocks. Lenders, however, may respond to this debtor-friendly bankruptcy system by raising interest rates or tightening credit supply, which inhibits borrowing and therefore the ability to smooth consumption over time. Moreover, debtor-friendly bankruptcy may cause debtors to take more risks or default more frequently, leading to a further tightening of the credit supply.

To quantify these effects of bankruptcy generosity, empirical research often focuses on the only part of the U.S. Bankruptcy Code where generosity varies geographically: asset exemptions. Asset exemptions are

laws that specify which assets are exempt from seizure by creditors. For historical reasons dating to the mid-1800s, there exist tremendous differences across U.S. states in the amount protected; some states protect around \$10,000 in total assets, while others protect more than \$500,000. A large literature examines the effects of exemptions on credit markets, portfolio decisions, entrepreneurship, and insurance decisions.

Despite the prominence of exemptions in empirical research, however, several fundamental questions remain unresolved. How do exemptions affect debtors' ability to smooth consumption? How do exemptions distort debtors' decisions to default? Do exemptions explain the longstanding regional variation in bankruptcy rates? My first set of papers examines these positive and normative questions about exemption protection.

Earlier papers estimate the interest rate *costs* of exemptions in higher interest rates, but not the benefits. In "Consumption Smoothing and Debtor Protections" (Journal of Public Economics, 2020 [1]), I address this gap by estimating the benefits of exemption protections. Theory suggests that protections provide consumption insurance that raises consumption in states of the world where a debtor defaults, but lower consumption (through higher interest rates) in states of the world where a debtor repays. Guided by an adapted Baily-Chetty formula, the value of this insurance depends on (i) the average gap in consumption between states where debtors default and repay and (ii) how changes in exemptions affect consumption in these states.¹

Using multiple data sources, I estimate the reduced-form parameters that determine the insurance value of asset exemptions. My approach accounts for the fact that exemptions protect debtors who default inside and outside of the formal bankruptcy system. The estimates imply that debtors do value exemption protection and they are willing to pay 17% above the actuarially fair rate (on average) for the consumption insurance it offers. But, due to behavioral distortions, exemptions generate interest rate costs that far exceed this willingness to pay. As a result, when evaluated as consumption insurance, lowering exemptions from current levels would benefit most debtors.

In "Asset Exemptions and Consumer Bankruptcies: Evidence from Individual Filings" with Richard M. Hynes (Journal of Law and Economics, 2020 [2]), we reexamine this longstanding but unresolved question: how do bankruptcy filing rates respond to changes in exemption levels? This matters for two reasons. First, the elasticity of filings with respect to bankruptcy generosity is the central distortion of bankruptcy and the key determinant of the costs of more generous protection. Second, a goal of the bankruptcy system is to restrict debt relief to the truly insolvent, so it is important to know the characteristics of the filers that are drawn into or excluded from the bankruptcy system as exemptions change.

Prior research typically used geographically aggregated data (state-level) and cross-sectional variation. Our paper is the first to combine detailed, case-level information on the universe of bankruptcies with an empirical strategy that exploits hand-collected information on changes in exemptions within states.

¹ The total welfare impact of changes in exemptions also depends on risk aversion, the probability of default weighted by outstanding debt, and the effect of exemptions on interest rates. I examine a standard range of values for risk aversion, and estimate the remaining parameters in the paper.

² An important institutional detail, often overlooked, is that exemptions protect debtors both inside and outside of the bankruptcy system. This paper accounts for this detail and finds that most of the consumption benefits accrue to those who default without a formal bankruptcy filing.

Quantifying the behavioral distortion, we find that exemption increases are followed by immediate and persistent rises in Chapter 7 filings. Moreover, the additional filings are entirely from consumers whose home equity becomes fully protected, and these households tend to be wealthier but have lower incomes than the average bankruptcy filer. Overall, though, exemptions have a relatively small impact on filing rates; raising the national share of consumers fully protected by homestead exemptions by 10 percentage points would lead to just 10,000 additional filings each year, an increase of 1.3%. This small effect is consistent with the results in [1], and the next paper provides insight into why these effects are small.

In "A Modern Poor Debtor's Oath" with Richard M. Hynes (Virginia Law Review, 2023 [3]), we continue this line of research in a more descriptive analysis of exemptions and eligibility screening in bankruptcy. Filing for even the simplest type of bankruptcy costs around \$1,800, with most of this paid to attorneys who help complete more than twenty required forms and schedules. These forms have two primary goals: to ensure that the debtor qualifies for relief and to help divide the debtor's nonexempt assets among creditors. We examine the assets and debts of financially distressed households and show that most potential bankruptcy filers (households in financial distress) easily qualify for relief and have zero nonexempt assets. Moreover, the small number that do not qualify can be identified with reasonable accuracy from a few, easily obtainable pieces of information. As a result, much of the paperwork used to screen debtors is excessive. Instead, we propose that some debtors could take a simple oath modeled after the historical "Poor Debtor's Oath," and that such an oath may reduce transaction costs while maintaining much of bankruptcy's current eligibility screening.

Overall, this work quantifies the consumption-smoothing benefits of exemptions and shows how exemptions shape access to the formal bankruptcy system. Additionally, all three papers find that, despite the prominence of exemptions in the literature, exemptions affect only a small number of distressed debtors. The aggregate effects of exemptions on debtors and credit markets are statistically significant but quite small in magnitude (papers [1] and [2]).³ Given the relatively small effect of exemptions, my next set of papers turns to other, less-studied sources of variation in the U.S. bankruptcy system.

Local Legal Culture and Geographic Variation

Although the Bankruptcy Code is a uniform federal law, there is significant and persistent variation across courts in bankruptcy practices and outcomes. The most notable example is in bankruptcy chapter choice. Consumers can choose to file bankruptcy under either Chapter 7, receiving a quick discharge of debt, or Chapter 13, entering a strict multi-year repayment plan. Across the 94 federal court districts, the share of bankruptcies filed under the more debtor-friendly Chapter 7 ranges from 5% to more than 70%. Qualitative legal research, consisting of interviews with bankruptcy practitioners, suggests this variation reflects differences in "local legal cultures," i.e., differences in how locations interpret and apply the uniform law. My second strand of research provides empirical evidence about the causes and consequences of this geographic variation in legal cultures and bankruptcy chapter choice.

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³ For example, [1] shows that an additional \$1,000 in exemption protection translates to, on average, only an additional \$1 recovered by creditors in a typical bankruptcy case. Similarly, [2] finds that raising the share of consumers fully protected by homestead exemptions by 10 percentage points would increases filings by only 1.3% per year.

In "Auto Credit and the 2005 Bankruptcy Reform: The Impact of Eliminating Cramdowns" with Rajashri Chakrabarti (Review of Financial Studies, 2019 [4]), we exploit this persistent geographic variation in chapter choice to identify the impact of the 2005 Bankruptcy Reform. The 2005 Bankruptcy Abuse Prevention and Consumer Protection Act (BAPCPA) introduced the most significant change to bankruptcy law in 30 years. The policy aimed to curtail "abusive" bankruptcy filings by restricting access to bankruptcy and reducing the benefits of filing. A central question in the debate was whether tightening access to bankruptcy would lead to a reduction in the costs of consumer credit. The challenge in determining BAPCPA's impact on credit markets was that it was a uniform change in federal law, making it difficult to separate its effect from other changes to credit markets.

To overcome this challenge, our paper exploits how BAPCPA interacts with the historical variation in chapter choice in order to estimate its impact on consumer credit markets. We examine auto loans because many consider auto lenders to be the biggest winners of the BAPCPA due to its "anti-cramdown provision," which no longer allows Chapter 13 filers to "cramdown" underwater auto loans to the market value of the car. Exploiting historical variation in states' usage of Chapter 13 bankruptcy, we find that eliminating cramdowns decreased interest rates, with a back-of-the-envelope calculation indicating a nearly complete pass-through of creditor gains to consumers. There are two main implications. First, we provide clear evidence that creditors' gains from BAPCPA were passed on to consumers through lower interest rates. This issue was at the center of the policy debate surrounding the reform. Second, we show that these persistent differences in chapter choice, attributed to local legal culture, create important geographic differences in the impact of a uniform change to federal bankruptcy law.

Next, I examine some of the specific local practices that generate geographic variation in bankruptcy. In "Screening in Consumer Bankruptcy," (updating an earlier working paper, 2023 [5]) we examine the role of variation in eligibility screening by bankruptcy judges and trustees.⁴ First, we estimate a two-stage model of chapter choice, accounting for multiple bankruptcy rules that determine whether a debtor is eligible for Chapter 7 or Chapter 13. The major innovation, relative to other models of chapter choice – is that we account for bankruptcy's multiple rules that determine eligibility for each chapter and we allow different court districts to vary in their application of these rules.

Using the model, we conduct two counterfactuals that help explain puzzling facts about bankruptcy. First, we examine the impact of BAPCPA's flagship feature, the means test, which barred some high-income debtors from Chapter 7. Although this was the flagship feature, empirical evidence has found no evidence that it affected filing decisions. Using our model, we show that the impact of the means test depends on its interaction with how different courts implemented bankruptcy's *other* screening mechanisms. Our model-generated predictions of BAPCPA's impact on chapter choice align well with the observed court-specific changes around BAPCPA. Second, we conduct a counterfactual exercise where eligibility screening is made uniform across all court districts. The results show that heterogeneity in this screening explains nearly a quarter of the geographic variation in chapter choice.

III. Credit Markets, Labor, and Small Businesses

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⁴ "Screening in Consumer Bankruptcy" is a substantially revised version of the working paper previously titled "A Tale of Two Bankruptcies: Geographic Differences in Bankruptcy Chapter Choice" with Daniel Millimet.

Borrowing and Unemployment

Another strand of research examines the use of credit while households are unemployed, including informal credit and the effects of credit on unemployment durations.

When faced with income losses or expense shocks, households sometimes fall behind on their housing payments. In "Landlords as Lenders of Last Resort: Late Housing Payments During Job Loss" (2024, [6]), a working paper, I provide show that these late payments are an important and widely used source of informal credit for unemployed households. Much existing research focuses on the extreme negative consequences of missed housing payments - eviction or foreclosure – which are known to lead to homelessness, reduced earnings, and worse health. Other work emphasizes that housing consumption is inflexible (due to the large costs of moving), which exacerbates the utility costs of moderate shocks. In contrast, this paper argues that falling behind on housing payments often provides an important source of informal credit to households, helping them smooth consumption when facing shocks. Adding late payments to a model of consumption commitments, I first show that committed consumption restricts the ability to smooth consumption across goods, but the ability to make late payments facilitates consumption smoothing over time. As a result, the total effect of commitments on the ability to smooth consumption is ambiguous.

I then empirically examine instances of job loss in two survey datasets, and document four new facts about housing payments and job loss: (i) households frequently miss housing payments in response to job loss, (ii) the dollar value of the missed payments is large, (iii) subsequent evictions are uncommon, and (iv) most households that miss payments continue living in the same residence. These facts are consistent with anecdotal evidence that landlords and lenders frequently ``work with'' delinquent tenants in order to avoid costly and time-consuming eviction and foreclosure process. By allowing households to reduce housing expenditure while maintaining housing consumption, missed payments provide a widely used informal source of credit extended by landlords and mortgage lenders. I find some (weak) evidence that it depends on parameters such as local eviction laws and types of landlords.

While defaulting helps debtors to smooth consumption, it can also tarnish the debtor's credit history. A poor credit history can lead to further harm, as landlords check credit reports to screen tenants, insurers check them to set premiums, and many employers check them when deciding whom to hire. In light of these concerns, especially those surrounding hiring decisions, eleven U.S. states and several cities now limit the use of credit reports in employment. Models of statistical discrimination, however, show that information bans can cause unintended consequences and empirical work on ban-the-box laws, drug testing, and job testing shows that bans often harm the intended beneficiaries.

"Who Benefits from Bans on Employers' Credit Checks?" with Leora Friedberg and Richard M. Hynes (Journal of Law and Economics, 2021 [7]) examines whether bans on employers' use of credit reports help financially distressed job seekers. In the absence of bans, financially distressed job seekers have significantly lower job-finding rates than non-distressed job seekers. When states ban employers from using credit reports, however, the gap in job-finding rates is eliminated. Moreover, we find no effects on job-finding rates for the non-distressed. Thus, our policy evaluation also provides an example in which limiting employers' information improves labor market outcomes for the intended beneficiaries, which contrasts with much of the existing literature. Our paper provides a discussion of the potential causes of the different impacts and reconciles our results with the broader literature on these credit check bans.

Small Businesses, Innovation, and Geography

This final group of papers examines small businesses, innovation, and geography. In "Industry Specialization and Small Business Lending" with Wenhua Di (Journal of Banking and Finance, 2023 [8]), I expand my research on credit markets by examining small business lending. Historically, small business lending has been extremely local, and nearly all small business lenders specialize in a certain location by serving only nearby borrowers. In this paper, however, we document the recent rise in industry-specialized small business lenders, i.e. institutions that lend nationally but specialize in a narrow set of industries (e.g., breweries, funeral homes). We then ask whether the entrance of these industry-specialized lenders complements or substitutes for local lenders. If industry-specialized lenders complement existing lenders by lending to new borrowers, they may increase the total amount of lending and relax credit constraints common among small businesses. Focusing on the market for Small Business Administration guaranteed lending, we use the staggered entry of a large, specialized lender to examine the impact on banking competition. We find significant increases in lending with no evidence of substitution from other lenders and find similar effects for other, smaller industry-specialized lenders. Thus, we show that industry specialization can complement existing local lenders, increasing access to credit among small businesses.

In addition to small businesses, "Copyright Registrations: Who, What, When, Where, and Why" with Dotan Oliar and K. Ross Powell (Texas Law Review, 2014 [9]) examines the geographic distribution of innovation in creative and artistic works. The main contribution is that we construct a new dataset of all 2.3 million copyright registrations in the United States between 2008 and 2012. The study provides the first systematic analysis of the characteristics of those registering copyrights and the geographic concentration of copyrighted works.

IV. Future Work

My future work will continue examining consumer bankruptcy, default, and the use of credit more generally. One set of projects will build on new data on case information (debtors' and judges' names) that I have recently merged with the Federal Judicial Center's anonymized database on the universe of bankruptcy filings since 2007. This merged data will allow for new empirical strategies and the ability to link the bankruptcy data to other datasets. In one work in progress, coauthors and I merge bankruptcy case information with the debtors' names and use this information to identify repeat filings by the same debtor. The prevalence of repeat filings has important implications for outcomes in bankruptcy. For example, it may alter the common critique that only one out of three Chapter 13 plans are successfully completed. Outside of bankruptcy, another work-in-progress examines the impact of debtor protections in other credit markets, including the effect of manufactured housing regulations on the supply of credit.

More generally, there are two strategies that I am incorporating into ongoing and future research. First, to increase the impact of my research on bankruptcy practice and to generate new ideas, I am actively engaging with the community of bankruptcy and creditors' attorneys. For example, I have recently spoken at two large state bar conferences for bankruptcy professionals and have a work-in-progress examining an idea proposed by a bankruptcy trustee. My current research often incorporates institutional details that are important in practice but have been abstracted from the academic literature (exemptions outside of bankruptcy in [1], cramdowns in [4], eligibility screening in [5]), and my goal is to strengthen the connection between research and practice.

Second, my recent and ongoing research aims to connect more closely to major themes in the quantitative macroeconomic models of consumption, borrowing, and bankruptcy. There are close links between empirical patterns and elasticities in bankruptcy and some of the central trade-offs and features of consumer's dynamic decision-making about debt. One example of this is paper [6], which uses micro data to examine housing payments during job loss, but also connects with the broader macroeconomic literature that incorporates consumption commitments to explain the prevalence of wealthy but liquidity-constrained households. Another example is a work-in-progress on repeat bankruptcy filings, mentioned above, where the rate of repeat filings can be a moment to target in quantitative models of bankruptcy and may be relevant for deeper questions about how to rationalize observed levels of unsecured credit and the use of bankruptcy as a fresh start.

V. List of Publications and Working Papers

- [1] "Consumption Smoothing and Debtor Protections." *Journal of Public Economics* (2020), 192. link
- [2] "Asset Exemptions and Consumer Bankruptcies: Evidence from Individual Filings" with Richard M. Hynes. *The Journal of Law and Economics* (2020) 63(3), 557-594. link
- [3] "A Modern Poor Debtor's Oath" with Richard M. Hynes. *Virginia Law Review* (2022) 108(4), 915-981. link
- [4] "Auto Credit and the 2005 Bankruptcy Reform: The Impact of Eliminating Cramdowns" with Rajashri Chakrabarti. *The Review of Financial Studies* (2019), 32(12), 4734-4766. link
- [5] "A Tale of Two Bankruptcies: Geographic Differences in Bankruptcy Chapter Choice" (2024) with Daniel Millimet. Working paper. link
- [6] "Landlords as Lenders of Last Resort: Late Housing Payments During Job Loss." (2024) Working paper. link
- [7] "Who Benefits from Bans on Employer Credit Checks?" with Leora Friedberg and Richard M. Hynes. *The Journal of Law and Economics* (2021) 64(4), 675-703. link
- [8] "Industry Specialization and Small Business Lending" with Wenhua Di. *Journal of Banking and Finance* (2023) 149. link
- [9] "Copyright Registrations: Who, What, When, Where, and Why" with Dotan Oliar and K. Ross Powell. *Texas Law Review* (2014), 92(7), 2211-2248. link