Research Statement

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I am an economist specializing in industrial organization. I develop empirical models of demand and competition to study how market institutions affect efficiency and the distribution of welfare. A recurring question in my work is when lower prices generate welfare gains and when changes in the allocation of production, firm entry, or consumer choices offset those gains. My current research examines these questions in finance and private pension markets. Across projects, I combine administrative data, quasi-experimental evidence, and structural estimation.

Firm financing and welfare When does expanding firms' access to finance improve welfare? Cheaper finance can enable valuable transactions that would otherwise be unprofitable, but firms with better access to finance may also grow by taking business from their competitors (Rotemberg, 2019; Cai and Szeidl, 2024). If this shifts production toward less efficient firms, the resulting reallocation losses can offset the gains from additional transactions, leaving the net welfare effect ambiguous.

Trade credit and factoring illustrate why expanding access to finance can have ambiguous effects on overall welfare. In business-to-business (B2B) transactions, suppliers often extend trade credit by allowing buyers to pay 30 to 90 days after delivery. Suppliers must finance their sales while waiting for payment, even when their buyers can borrow more cheaply. The same transaction could then cost less to finance if the buyer borrowed and paid on delivery. Factoring is the sale of unpaid invoices to a financial intermediary. The supplier receives the face value minus interest upfront, and the intermediary collects payment from the buyer when each invoice comes due. Because the intermediary prices factoring on the buyer's credit, it can offer suppliers cheaper finance.

In my job market paper, *Finance and Competition in B2B Markets: The Role of Factoring* (with Eliana Sena), we ask how factoring affects total welfare and its distribution. To answer this question, we develop an empirical model of B2B procurement competition. Buyers differ in their preferences over suppliers. On each purchasing occasion, a buyer requests price quotes from a fixed roster of suppliers and chooses the offer with the highest value net of price, or decides not to buy. Suppliers privately observe their production costs and compete by quoting prices. They finance payment delays through bank loans or factoring, whichever offers the lower rate. Because factoring lowers financing costs for some suppliers more than others, it changes both their quotes and their competitors' pricing, affecting output and the allocation of production. Using invoice and financial records from a Chilean factoring company, we jointly estimate buyer preferences and supplier cost distributions from supplier shares and winning prices, despite not observing rejected quotes. We compare the observed market with a counterfactual in which suppliers rely only on bank loans, allowing prices, supplier choices, and output to adjust.

Our main finding is that factoring's gains from output expansion and losses from reallocation roughly offset each other, leaving little change in total welfare. Lower prices lead to an increase in demand and output, generating some welfare gains. However, factoring also reallocates production toward suppliers with high bank loan rates. In our setting, these suppliers are smaller and more inefficient: their higher production costs outweigh their edge in buyer preferences. Because they have low markups, they are attractive to buyers, who choose by value net of price. High bank loan rates can partly offset this advantage. Factoring reduces their financing costs, allowing them to lower prices and take business from competitors who generate more value net of production costs. Finally,

factoring also redistributes surplus. Lower interest payments transfer surplus from the financial sector to suppliers, while lower procurement prices transfer surplus from suppliers to buyers.

In *Factoring and the Transmission of Monetary Policy* (with Agustín Díaz and Ramiro de Elejalde at the Central Bank of Chile), we study whether factoring mitigates or amplifies the contraction in bank credit following monetary tightening. We combine Chilean administrative data on loan originations and assigned invoices for 2016–2024 and estimate local projections of credit and factoring prices and quantities on monetary policy surprises, separately by firm size. Building on this work, I plan to study factoring's dynamic effects on firm growth, efficiency, entry and exit, and banks' loan rates in future work with the same coauthors. This proposed extension would allow firms' characteristics, borrowing costs and bank relationships to evolve over time while retaining static procurement auctions.

Private pension markets How can governments promote competition in private pension markets when consumers rarely switch providers? In *Can Auctions Promote Competition in Regulated Pension Fund Markets? Evidence from Chile*, with Keunsang Song, we study Chile's auctions, which assign workers entering the pension system to the lowest-fee bidder. Using administrative data, we develop and estimate a model of consumer choice and dynamic competition that captures how inertia affects providers' bidding, pricing, and entry. We find that auctions benefit consumers mainly by encouraging entry, which lowers fees and expands their choice of providers. Gross investment returns are similar across providers, but consumers have differentiated preferences over pension fund administrators that extend beyond fees and returns. Compulsory assignment can therefore place consumers with providers they value less. Under our baseline measure, which accounts for these preferences, auctions yield a modest net gain in consumer welfare of $5.19 per person per month relative to a market without auctions. Expanding the award to include workers already in the pension system induces more aggressive incumbent bidding, lowering average fees but delaying entry. The additional misallocation and delayed entry outweigh the gains from lower fees, reducing consumer welfare relative to the baseline auction.

How do incentives to delay retirement affect welfare once financial markets respond? In ongoing work with Gastón Illanes, Ursula Schwarzhaupt, and Benjamin Vatter, I study Chile's introduction of a pension subsidy per child. The reform limited eligibility to mothers who retired on or after July 1, 2009, giving some mothers a financial incentive to postpone retirement until that date. We use this natural experiment to evaluate takeup and the policy's effects on retirees. We find that healthier workers delay retirement more, leading insurers to expect longer lifespans among those who delay. Insurers offer this group less generous annuities, weakening the incentive to postpone retirement and raising the fiscal cost of achieving a target average retirement age. This selection can undo the benefits of voluntary delay. We study optimal retirement incentives and their welfare and fiscal consequences.

Going forward, I plan to extend the tools I have developed to study demand and competition in other settings. I am particularly interested in adapting IO methods to different kinds of data and the economic choices they reveal. Beyond B2B transaction records, these include central banks' data on firms' loans and borrowing rates (as well as Factoring and use of other financial instruments), and longitudinal labor-market data that allow us to model workers' choices among differentiated jobs. These settings offer opportunities to develop new approaches to demand estimation and to better understand how competition affects choices and welfare.