Chuan Yu

CONTACT INFORMATION

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EDUCATION

Stanford University, Department of Economics

Ph.D., Economics, 2018 - present

FIELD

Industrial Organization, Applied Econometrics, Health Economics

GRADUATE COURSEWORK

Course	**Instructors**
Microeconomics 1	Ilya Segal
Microeconomics 2	Paul Milgrom
Microeconomics 3	Matthew Jackson, Fuhito Kojima
Macroeconomics 1	Martin Schneider, Monika Piazzesi
Macroeconomics 2	Paul Milgrom
Macroeconomics 3	Matthew Jackson, Fuhito Kojima
Econometrics 1	Han Hong, Joseph Romano
Econometrics 2	Guido Imbens
Econometrics 3	Liran Einav, Luigi Bocola, Luigi Pistaferri, Thomas MaCurdy
Industrial Organization 1	Brad Larsen, Paulo Somaini
Industrial Organization 2	Ali Yurukoglu, Liran Einav, Matthew Gentzkow
Industrial Organization 3	Liran Einav, Heidi Williams
Quantitative Methods for Empirical Research	Guido Imbens
Machine Learning and Causal Inference	Susan Athey, Stefan Wager
Labor Economics	Luigi Pistaferri
Market Failures and Public Policy	Heidi Williams, Liran Einav
Game Theory and Economic Applications	Gabriel Carroll

RESEARCH INTEREST

I'm a third-year Ph.D. student. My field of interest is industrial organization. My research focuses on vertical integration, pharmaceutical markets, and platforms, and combines model-free results with structural models that connect the data to a theoretical framework.

WORK IN PROGRESS

Selection with Variation in Diagnostic Skill:Evidence from Radiologists (with David C. Chan and Matthew Gentzkow)

Abstract: Physicians, judges, teachers, and agents in many other settings differ systematically in the decisions they make when faced with similar cases. Standard approaches to interpreting and exploiting such differences assume they arise solely from variation in preferences. We develop an alternative framework that allows variation in both preferences

and diagnostic skill, and show that both dimensions are identified in standard settings under quasi-random assignment. We apply this framework to study pneumonia diagnoses by radiologists. Diagnosis rates vary widely among radiologists, and descriptive evidence suggests that a large component of this variation is due to differences in diagnostic skill. Our estimated model suggests that radiologists view failing to diagnose a patient with pneumonia as more costly than incorrectly diagnosing one without, and that this leads less-skilled radiologists to optimally choose lower diagnosis thresholds. Variation in skill can explain 44 percent of the variation in diagnostic decisions, and policies that improve skill perform better than uniform decision guidelines. Failing to account for skill variation can lead to highly misleading results in research designs that use agent assignments as instruments.

The Welfare Effects of Vertical Integration in China's Movie Industry (with Luming Chen and Lisa Xuejie Yi)

Abstract: Vertical integration has received growing policy attention, while theoretical literature predicts ambiguous welfare effects. This paper investigates the welfare effects of vertical integration in China's movie industry. We leverage a rich daily-level data set that covers the universe of theaters and 423 most popular movies in China during 2014-2018. We find that vertical integration induces a series of responses in theaters' exhibition decisions, both along the extensive and intensive margins. Integrated theaters are more likely to exhibit their own movies, allocate 16.8% more screenings, and charge lower prices. We estimate a structural model combining the demand and supply of movie exhibition. In the counterfactual analysis, we find that compared with the status quo with vertical integration and no foreclosure, both regulatory prohibition of vertical integration and market foreclosure with vertical integration deteriorate consumer welfare, by 0.2% and 1.2% respectively.

Competitive Bidding, Drug Prices, and Consumer Welfare: Evidence from Chinese Pharmaceutical Market (with Shengmao Cao and Lisa Xuejie Yi)

Abstract: We study the effects of competitive bidding in pharmaceutical procurement on drug prices and consumer welfare. In 2019, the Chinese government implemented competitive bidding for hospital procurement of 25 molecules, where the bid winner for each molecule was guaranteed 50% of market shares in 11 major Chinese cities. By comparing trajectories in prices and sales of those 25 molecules to 6 other molecules that did not complete the bidding, we estimate that the program on average reduced drug prices by 42% and had no appreciable effects on drug consumption. High-quality generic drugs won bid in 22 molecules, and on average gained 27% of market shares. To evaluate the welfare effects of the policy experiment, we estimate a simple model of demand and supply for hypertension drugs. We consider two measures of consumer welfare: a standard measure based on consumers' revealed preferences, and an alternative measure where we consider high-quality generics equivalent to branded drugs. We find that competitive bidding reduced consumer welfare by 16.2% under the first measure, but increased consumer welfare by 15.5% under the second. Producer surplus decreased by 35.0% under the policy as profits fell for both bid winners and losers.

Market Structure and Growth in Television (with Evgeni Drynkin and Ali Yurukoglu)

Summary: The television sector consists of several complementary segments: television set

manufacturers, content creators, and telecommunications distribution systems. This paper measures the complementarities between these segments to study optimal market structure in the industry over time. The main trade-off under analysis is that increased integration between firms lowers competition within segment but reduces double marginalization and related distortions across segments.