

# SHIYUN XIA

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## EDUCATION

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Ph.D. Economics, University of Illinois at Urbana-Champaign (UIUC). Expected May 2020  
M.S. Economics,  
Joint program at Kyushu University, Japan, and Renmin University of China, China. 2012  
B.S. Economics and Mathematics, Renmin University of China, China. 2009

## FIELDS OF CONCENTRATION

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**Primary** Industrial Organization, Innovation, Entrepreneurial Finance, Microeconomics  
**Secondary** Corporate Finance, Economic Growth

## WORKING PAPERS

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“The Market for Ideas and Economic Growth” (**Job Market Paper**)  
“The Market for Ideas and Industrial Dynamics”

## RESEARCH IN PROGRESS

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“Entrepreneurial Finance and Adverse Selection”

## HONORS AND AWARDS

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Department Summer Research Grant, UIUC, 2014.  
Cleo Fitzsimmons Best Core Performance Award, UIUC, 2013.  
Scholarship for Study, Kyushu University, 2010.  
University Scholarships, Renmin University, 2005-2008.

## WORK EXPERIENCE

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Research Assistant for Professor In-Koo Cho, UIUC 01/2015-05/2017

- Large-scale parallel simulations of macroeconomic learning theories using MATLAB and GNU Octave.
- Computer lab management and Linux system maintenance.

Teaching Assistant for Principles of Macroeconomics, UIUC 01/2019-05/2019, 01/2019-Present

Teaching Assistant for Principles of Microeconomics, UIUC 08/2018-12/2018

Teaching Assistant for Economic Statistics, UIUC 08/2014-12/2014, 08/2017-12/2017

Internship, Hollyhigh Finance (Beijing) 07/2010-09/2010

- Performed industry analysis and company valuation for mergers and acquisitions business.

## TECHNICAL STRENGTHS

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**Programming Languages** MATLAB, Python, R, Stata, Mathematica  
**Operating Systems** Linux, Windows

## REFERENCES

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**Dan Bernhardt**

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**Stefan Krasa**

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## WORKING PAPER ABSTRACTS

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*“The Market for Ideas and Economic Growth”*

This article studies the effects of intellectual property rights (IPR) and antitrust policies on aggregate innovation. I develop a continuous-time endogenous growth model to describe the interactions of incumbent firms with independent inventors and their investment decisions. Incumbent firms choose the extent of R&D to improve the quality of their products. Inventors who engage in R&D choose between pursuing complementary innovations that they could sell to incumbent firms and pursuing a disruptive innovation that could lead them to develop a superior technology that supersedes that of an incumbent firm. I show that public policies designed to promote innovation by inventors may reduce innovation by incumbents. Stronger protection for inventors increases innovation by inventors, but because that protection reduces the equity value of incumbent firms, it subsequently reduces incumbent firms' investment in innovation. If inventors only innovate to enter product markets, the trade-off can lead to an inverted-U relationship between the economic growth rate and the ability of inventors to benefit from their innovations. However, a stronger IPR policy that protects inventors from incumbent firms in the market for ideas always increases aggregate innovation in two ways. First, the IPR policy has a stronger effect on the incentives of inventors to innovate than it does on the incentives of incumbent firms to do so. Second, the IPR policy increases the economic growth rate by encouraging inventors to innovate in order to sell innovations on the market for ideas instead of innovating in order to enter product markets.

*“The Market for Ideas and Heterogeneous Innovations”*

This paper presents a framework for identifying the impacts of the market for ideas on industrial dynamics and economic growth. I develop a continuous-time model in which an incumbent firm can hold multiple product lines. In this model, incumbent firms seek internal innovations to improve their products. Incumbent firms and entrants pursue replacement innovations to obtain product lines they do not currently own. Independent inventors pursue innovations that are complementary to existing products and sell them to incumbent firms. Entrants successfully become incumbent firms when they obtain a product line, and incumbent firms exit when they lose all product lines. Strengthening the bargaining power of inventors increases complementary innovation by independent inventors. However, because it also reduces the value of holding a product line, it reduces the incentive for incumbent firms to improve their products, and it also reduces the incentive for incumbent firms and entrants to obtain another product line. Because of a lower replacement innovation rate, the rate at which an incumbent firm loses a product line decreases. Therefore, exit rates fall, and the average number of product lines held by a firm rises. For a large set of parameter values, the positive effect of stronger IPR protection on innovation by inventors dominates the negative effect on innovation by incumbent firms and entrants, which results in faster economic growth.