

Xin Zhang

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EDUCATION

Doctoral Studies

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| <i>Ph.D. in Economics</i> , Toulouse School of Economics | 2021–2026 (expected) |
| <i>Visiting Scholar</i> , Northwestern University, Department of Economics | Jan–Apr 2025 |

Prior Education

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| <i>M.Sc. in Economic Theory and Econometrics</i> , Toulouse School of Economics | 2019–2021 |
| <i>B.Sc. in Economics and Management</i> , Zhongnan University of Economics and Law | 2015–2019 |

REFERENCES

Pierre Dubois

Toulouse School of Economics
pierre.dubois@tse-fr.eu

Isis Durrmeyer

Toulouse School of Economics
isis.durrmeyer@tse-fr.eu

Thierry Magnac

Toulouse School of Economics
thierry.magnac@tse-fr.eu

RESEARCH INTERESTS

Primary field: Industrial Organization

Secondary fields: Health Economics, Food Economics

TEACHING EXPERIENCE

Teaching Assistant

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| Toulouse School of Economics | |
| Game Theory, Master | 2022, 2023, 2024 |
| Intermediate Econometrics, Master | 2024 |
| Introductory Econometrics, Undergraduate | 2024 |
| Empirical Industrial Organization, Master | 2023 |
| Industrial Organization, Undergraduate | 2023 |

OTHER POSITIONS

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| Research Assistant to Isis Durrmeyer, Toulouse School of Economics | 2022 |
| Research Assistant to Mathias Reynaert, Toulouse School of Economics | 2021, 2020 |
| Research Assistant to Jie Shuai, Zhongnan University of Economics and Law | 2016–2018 |
| Intern at Guotai Junan Securities, Wuhan | 2017 |

AWARDS AND FELLOWSHIPS

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| Mobility grant, Toulouse School of Economics | 2025 |
| Doctoral fellowship, Toulouse School of Economics | 2019–2026 |
| Student research award, Zhongnan University of Economics and Law | 2019 |

WORKING PAPER

Patent Challenge and Generic Entry - Job market paper
with Hanlin Zhao

Secondary patents, covering incremental innovations such as formulations or methods of use rather than core active ingredients, are increasingly employed by brand-name firms to extend market exclusivity, defer generic competition, and sustain high prices. A key policy response, the Hatch–Waxman Act’s 180-day exclusivity for the first successful generic challenger, is designed to incentivize challenges to these patents. This study evaluates how this incentive shapes generic firms’ decisions to initiate Paragraph IV (PIV) challenges. We develop a two-stage dynamic model that endogenizes patent challenge decisions and apply partial identification methods to estimate the fixed costs of generic drugs. We assess alternative policies that vary in exclusivity lengths and fixed costs. Our results show that the 180-day exclusivity increases PIV challenges by about 4%. Longer exclusivity periods are more effective and practical than reducing fixed costs, and they substantially accelerate entry in previously unchallenged markets: 2-year exclusivity raises the challenge rate to 15.38%. Moreover, it is recommended to tailor exclusivity lengths to specific therapeutic classes.

Tax Exemption for Feminine Sanitary Products: Evidence from the U.S Market

WORK IN PROGRESS

Consumer Demand with Unobserved Stockpiling and Intertemporal Price Discrimination

with Pierre Dubois and Thierry Magnac

Prescribing Behavior in Medical Deserts

with Philippe Choné, Pierre Dubois and Lionel Wilner

PRESENTATIONS

2025 TSE Empirical Micro Workshop, IO Lunch Seminar at Northwestern University, Brown Bag Seminar at Kellogg School of Management

2024 TSE IO Workshop, EEE Luchon workshop

2023 TSE IO Workshop

2017 CES Annual Conference, China

OTHER ACTIVITIES

Service: Mentor, Women in Economics Mentorship Program, TSE (2022–2023);
Co-organizer, TSE IO Workshop (2023–2024) and IO Reading Group (2024–2025)

OTHER INFORMATION

Software: Matlab, Stata, R, Python, SAS

Languages: English (fluent), French (basic, B1), Mandarin (native)

Citizenship: China