The Faculty of Medicine of Harvard University Curriculum Vitae

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Name: Luca Maini

Office Address: 180 Longwood Avenue, Boston, MA 02115

Work Email: maini@hcp.med.harvard.edu

Education:

05/2018	PhD	Economics	Harvard University
03/2015	MA	Economics	Harvard University
06/2011	BA/BS	Economics/Mathematics	University of Chicago

Faculty Academic Appointments:

2022-	Assistant Professor	Health Care Policy	Harvard Medical School
2018-2022	Assistant Professor	Economics	University of North Carolina at Chapel Hill

Other Professional Positions:

2018-2023	Research Fellow	Cecil G. Sheps Center for Health Services Research
2013-2015	Research Assistant	Harvard University
2011-2012	Research Assistant	National Bureau of Economic Research
2010-2011	Research Assistant	University of Chicago

Committee Service:

National

2022	American Society of Health Economists	Program Chair for Prescription Drug Area,
		Annual Conference

Professional Societies:

2019-	American Society of Health Economists
2019-	American Economic Association

Grant Review Activities:

2023	Ad-hoc reviewer	NSF
2021	Ad-hoc reviewer	UNC Chapel Hill, Idea Grant

Editorial Activities:

Referee

AEJ: Economic Policy

American Economic Review

American Economic Review: Insights
American Journal of Health Economics

Econometrica

Economic Journal

European Journal of Health Economics

Health Affairs

Health Policy Open

Health Economics

International Review of Law & Economics

Journal of Economics and Management Strategy

Journal of European Economic Association

Journal of Health Economics

Journal of Industrial Economics

Journal of Law and Economics

Journal of Political Economy

JPE: Microeconomics

Journal of Public Economics

Journal of the Royal Statistical Society

Quantitative Marketing and Economics

Quarterly Journal of Economics

RAND Journal of Economics

Review of Economics and Statistics

Review of Industrial Organization

Southern Economic Journal

Honors and Prizes:

2015 Certificate of Harvard University

Distinction in Teaching

Report of Funded and Unfunded Projects

Current

2023-2025 What Does a List Price Do? The Impact of Posted Drug Prices on Spending and Access

Arnold Ventures

Role: PI \$222,511

This project aims to study how list prices of prescription drugs affect net prices and out-

of-pocket costs of patients.

2022-2023 Consolidation in Prescription Drug Markets: Impact on Prices and Access

Center for Equitable Growth

Role: PI \$75,000

This project aims to assemble a comprehensive dataset that combines several novel data sources to provide an exhaustive analysis of how consolidation affects market outcomes of on-patent branded drugs involved in the deal—either as acquired products or products owned by the acquiring or target company.

Past

2020 Market Structure and Innovation: a Structural Approach University of North Carolina at Chapel Hill Idea Grant

Role: Co-PI (with Andrés Hincapié)

\$15,700

Governments regulate markets where innovation plays a big role through a host of policies meant to foster and protect both competition and innovation (e.g. antitrust regulation and patent law). How these policies interact with the structure of the market, however, remains ambiguous in the economic literature, suggesting incomplete understanding of their effect. This project aims to explore how competition affects the R&D portfolio choices of pharmaceutical companies in terms of magnitude (how different from previous drugs a new treatment should be) and direction (what therapeutic area it should focus on).

The Impact of Consolidation on Prescription Drug Pricing and Access

NIHCM Foundation Research Grant

Role: Co-PI (with Josh Feng)

\$60,000

Over the past two decades, both the pharmaceutical and pharmacy benefit management industries have seen significant consolidation. This project will study how this M&A activity affects two key drivers of patient welfare: drug prices and drug access.

2016 Reference Pricing and Access to Pharmaceuticals: A Structural Approach

Health Economics Dissertation Fellowship, Becker Friedman Institute

Role: PI \$25,000

To study the impact of reference pricing on strategic launch delays of novel pharmaceutical products across member countries of the European Union

How does market size affect innovation in the pharmaceutical market? Quality upgrading

vs. horizontal differentiation

Pre-Doctoral Fellowship on the Value of Medical Research, NBER-IFS

Role: Co-PI (with Josh Feng)

\$10,000

This project aims to estimate the value of medical research by assessing the quality of its final output: new molecular entities (NMEs). We plan to collect and organize information on drug safety and efficacy contained on FDA labels and use it to understand how changes in market size driven by the expansion of insurance have affected not only the amount, but also the quality of innovation.

Report of Local Teaching and Training

Teaching of Students in Courses:

Fall 2018 Industrial Organization Spring 2020

University of North Carolina at Chapel Hill

Fall 2021		
AY 2020-	Industrial Organization Workshop	University of North Carolina at Chapel Hill
2021		
Spring 2021	The Economics of Health Care Markets and	University of North Carolina at Chapel Hill
Spring 2022	Policy	
Spring 2021	Health Economics: Markets and Supply-	University of North Carolina at Chapel Hill
Spring 2022	Side Actors	

Mentored Trainees and Faculty:

2019-2022	Yunjuan Liu, UNC Chapel Hill PhD Program in Economics, Dissertation Committee cochair (Analysis Group)
2019-2022	Jacob Klimek, UNC Chapel Hill PhD Program in Economics, Dissertation Committee Member (Analysis Group)
2020-2022	Andrew DeJong, UNC Chapel Hill PhD Program in Economics, Dissertation Committee co-chair (Deloitte)
2020-	Karishma D'Souza, UNC Gillings School of Public Health PhD Program in Health Policy and Management, Dissertation Committee Member
2021-	Ishan Phadke, UNC Chapel Hill PhD Program in Economics, Dissertation Committee co- chair
2023-	Michael Nguyen-Mason, Harvard University Health Policy Program, Economics Track, Dissertation Committee Member

Report of Regional, National and International Invited Teaching and Presentations

No presentations below were sponsored by 3rd parties/outside entities

Local Invited Presentations:

2023	"Mergers that Matter: The Impact of M&A Activity in Prescription Drug Markets"
	RAND Corporation, Boston
2023	"Stocking Under the Influence: Spillovers from Commercial Drug Coverage to Medicare
	Utilization"
	Boston Conference on Markets and Competition (Harvard Business School)
2021	"Consolidation in Prescription Drug Markets: Impact on Pricing and Access"
	UNC Gillings School of Public Health, The Health Economics Workshop
2020	"Biosimilar Entry & the Pricing of Biologic Drugs: 10 Years of the BPCI Act"
	UNC School of Medicine, UNC Cancer Outcomes Breakfast
2019	"Regulation and Firm Strategy in the Pharmaceutical Market"
	Kenan-Flagler, Business of Healthcare Research Convocation
2019	"The ACA Medicaid Rebate Rule Change: Impact on Pricing and Innovation"
	UNC Gillings School of Public Health, The Health Economics Workshop
2018	"Reference Pricing as a Deterrent to Entry: Evidence from the European Pharmaceutical
	Market"
	Strategy Unity, Harvard Business School

Regional

2023 "Mergers that Matter: The Impact of M&A Activity in Prescription Drug Markets" University of Massachusetts, Amherst

2021	"Consolidation in Prescription Drug Markets: Impact on Pricing and Access" Southeastern Health Economics Study Group (hosted virtually by Johns Hopkins
2021	University) "Profiting from Most-Favored Customer Procurement Rules: Evidence from Medicaid" Triangle Applied Microeconomics Conference, Duke University
2018	"Reference Pricing as a Deterrent to Entry: Evidence from the European Pharmaceutical Market" Wake Forest University, North Carolina Health Economics Colloquium
National	
2023	"Stocking Under the Influence: Spillovers from Commercial Drug Coverage to Medicare
	Utilization"
2023	Weill Cornell Medicine "Demand Inertia and the Hidden Impact of Pharmacy Benefit Managers"
2023	NYU Stern IO Day
2023	"Profiting from Most-Favored Customer Procurement Rules: Evidence from Medicaid"
	American Society of Health Economists Annual Conference
2023	"Demand Inertia and the Hidden Impact of Pharmacy Benefit Managers"
	American Society of Health Economists Annual Conference
2023	"Mergers That Matter: the Impact of M&A Activity in Prescription Drug Markets"
2023	Bates White Life Sciences Symposium "Demond In article and the Hidden Impact of Pharmacay Parafit Manageme"
2023	"Demand Inertia and the Hidden Impact of Pharmacy Benefit Managers" Institute for Mathematical and Statistical Innovation Workshop on Technological
	Innovation in Health Care Delivery
2023	"Mergers That Matter: the Impact of M&A Activity in Prescription Drug Markets"
	International Industrial Organization Annual Conference
2022	"Mergers That Matter: the Impact of M&A Activity in Prescription Drug Markets"
	Stanford University
2022	"Mergers That Matter: the Impact of M&A Activity in Prescription Drug Markets"
2022	Georgetown McDonough, Strategy Unit
2022	"Mergers That Matter: the Impact of M&A Activity in Prescription Drug Markets" FDA Economic Brownbag
2022	"Consolidation in Prescription Drug Markets: Impact on Pricing and Access"
2022	Allied Social Science Associations Annual Meeting (American Society of Health
	Economists sponsored session)
2022	"Biosimilar Entry and the Pricing of Biologic Drugs"
	ISMS Marketing Science Conference
2021	"Consolidation in Prescription Drug Markets: Impact on Pricing and Access"
2021	Southern Economic Association Meetings
2021	"Consolidation in Drug Markets: Impact on Pricing and Access" American Society of Health Economists Annual Conference
2021	"Profiting from Most-Favored Customer Procurement Rules: Evidence from Medicaid"
2021	International Industrial Organization Annual Conference
2020	"Consolidation in Drug Markets: Impact on Pricing and Access"
	Southern Economic Association Meetings
2020	"Drug spending and actuarial risk in oncology APMs"
	5 th Advisory Council Meeting on Oncology Alternative Payment Models (Tapestry
2020	Networks)
2020	"The ACA Medicaid Rebate Rule Change: Impact on Pricing and Innovation"

	Allied Social Science Associations Annual Meeting (Health Economics Research
2019	Network sponsored session) "Reference Pricing as a Deterrent to Entry: Evidence from the European Pharmaceutical
	Market"
2010	American Society of Health Economists Annual Conference
2019	"The ACA Medicaid Rebate Rule Change: Impact on Pricing and Innovation" Southern Economic Association Meetings
2019	"Reference Pricing as a Deterrent to Entry: Evidence from the European Pharmaceutical
2017	Market"
	Seminar on Pharmaceutical Economics and Policy, UCLA School of Public Health
2019	"Reference Pricing as a Deterrent to Entry: Evidence from the European Pharmaceutical Market"
	Schaeffer Center, University of Southern California
2019	"Reference Pricing as a Deterrent to Entry: Evidence from the European Pharmaceutical
2019	Market"
	International Industrial Organization Annual Conference
2019	"Reference Pricing as a Deterrent to Entry: Evidence from the European Pharmaceutical
	Market"
2019	Business of Healthcare Conference, Kellogg School of Management
2019	"Reference Pricing as a Deterrent to Entry: Evidence from the European Pharmaceutical Market"
	Department of Economics, Cornell University
2019	"Reference Pricing as a Deterrent to Entry: Evidence from the European Pharmaceutical
	Market"
	Allied Social Science Associations Annual Meeting (International Health Economics Association sponsored session)
2018	"Reference Pricing as a Deterrent to Entry: Evidence from the European Pharmaceutical
2010	Market"
	Department of Economics, University of North Carolina at Chapel Hill
2018	"Reference Pricing as a Deterrent to Entry: Evidence from the European Pharmaceutical
	Market"
2018	Department of Economics, University of Arizona "Reference Pricing as a Deterrent to Entry: Evidence from the European Pharmaceutical
2010	Market"
	Business, Economic and Public Policy Unit, Wharton
2018	"Reference Pricing as a Deterrent to Entry: Evidence from the European Pharmaceutical
	Market"
2010	Department of Economics, Yale University
2018	"Reference Pricing as a Deterrent to Entry: Evidence from the European Pharmaceutical Market"
	Department of Economics, George Washington University
2017	"Reference Pricing as a Deterrent to Entry: Evidence from the European Pharmaceutical
	Market"
	Marketing Unit, Haas School of Business
2017	"Reference Pricing as a Deterrent to Entry: Evidence from the European Pharmaceutical
	Market" Rates White Life Sciences Symposium
2017	Bates-White Life Sciences Symposium "Reference Pricing as a Deterrent to Entry: Evidence from the European Pharmaceutical
2011	Market"
	Applications of Economics Workshop, University of Chicago

International	
2023	"Mergers That Matter: the Impact of M&A Activity in Prescription Drug Markets"
	University of Bologna
2023	"Mergers That Matter: the Impact of M&A Activity in Prescription Drug Markets"
	CEPR Conference in Health Economics (Toulouse, France)
2022	"Reference Pricing in Europe and Beyond"
	TSE Workshop on Innovation, Regulation, and Organization in Healthcare (Paris, France)
2021	"Consolidation in Prescription Drug Markets: Impact on Pricing and Access"
	Department of Economics, Singapore Management University
2020	"Reference Pricing as a Deterrent to Entry: Evidence from the European Pharmaceutical
	Market"
	Department of Economics, McGill University
2020	"Reference Pricing as a Deterrent to Entry: Evidence from the European Pharmaceutical
	Market"
	Econometric Society's World Congress
2018	"Reference Pricing as a Deterrent to Entry: Evidence from the European Pharmaceutical
	Market"
	Department of Economics, Einaudi Institute for Economics and Finance (Rome, Italy)
2017	"Reference Pricing as a Deterrent to Entry: Evidence from the European Pharmaceutical
	Market"
	EIEF Doctoral Workshop on Applied Microeconomics, Einaudi Institute for Economics

Report of Scholarship

Peer-Reviewed Scholarship in print or other media:

and Finance (Rome, Italy)

- 1. Murray A, Berndt ER, Cutler D, Kleinrock M, **Maini L.** Has the Era of Slow Growth for Prescription Drug Spending Ended? Health Affairs. 2016; 1595-1603.
- 2. Hwang TJ, Dusetzina S, Feng J, **Maini L,** Kesselheim A. Price Increases of Protected-Class Drugs in Medicare Part D, Relative to Inflation. 2012-2017. Journal of the American Medical Association. 2019; 332(3):267-269.
- 3. Hwang TJ, Feng J, **Maini L**, Kesselheim A. Medicaid Expenditures and Estimated Rebates on Line Extension Drugs, 2018-2018. Journal of General Internal Medicine. 2022; https://doi.org/10.1007/s11606-022-07435-2.
- 4. Feng J, Hwang TJ, **Maini L**. Profiting from Most-Favored-Customer Procurement Rules: Evidence from Medicaid. American Economic Journal: Microeconomics, 2023, 15(2): 345–383
- 5. Pammolli F, **Maini L**. Reference Pricing as a deterrent to Entry: Evidence from the European Pharmaceutical Market. American Economic Journal: Economic Policy 2023, 15(2): 166–197
- 6. **Maini L**, Klimek JP, Johnson DC, Holmes GM, DeWalt DA. Impact of including drug spending in oncology alternative payment models. The American journal of managed care. 2023, 29(11): 579-84.
- 7. Feng J, **Maini L**. Demand Inertia and the Hidden Impact of Pharmacy Benefit Managers. Accepted, Management Science, 2023.

Proceedings of meetings or other non-peer reviewed scholarship

- 8. Feng J, **Maini L.** Where is the Good Stuff? Drug Quality Measures and Economic Research. 2016. NBER. [White Paper].
- 9. **Maini L**, Feng J, Hwang T, Klimek J. Biosimilar Entry and the Pricing of Biologic Drugs. 2022. [Working Paper] https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3760213

- Dean EB, Feng J, Maini L. Stocking Under the Influence: Spillover Effects of Commercial Coverage on Medicare Utilization. 2023 [Working Paper] https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4578352
- 11. Feng J, Hwang TH, Liu Y, Maini L. Mergers That Matter: the Impact of M&A Activity in Prescription Drug Markets. 2023 [Working Paper] https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4523015
- 12. Bertuzzi L, **Maini L**. Benefit Design and Biosimilar Coverage in Medicare Part D: Early Evidence from the BBA and Implications for the IRA. 2023 [Working Paper]

Thesis:

Maini L. Price Regulation in the Pharmaceutical Market. Harvard University. Department of Economics. 2018.

Narrative Report

My research focuses on regulation and competition in pharmaceutical markets. Prescription drug prices are a constantly debated topic in the policy arena. To design policies that maximize investment in new life-saving technologies without compromising patient access, we must understand how drug manufacturers compete with one another and how regulation affects their behavior.

In one line of research, I study the empirical implications of regulation that references drug prices across markets. In one study, I show that drug manufacturers exploit the best-price clause imposed by the Medicaid Drug Rebate Program—which grants Medicaid the largest discount given to any commercial payer—to set higher prices for private payers. In another study, I show how similar policies lead to widespread access disparities across European countries, as drug manufacturers voluntarily delay launching in lower-income countries to avoid costly references that could lower their margins in higher-income countries.

In a second line of research, I study how market structure affects US drug prices. My work in this area includes a study on the role of intermediaries called Pharmacy Benefit Managers (PBMs) and one on the impact of M&A activity that involves patent-protected branded drugs.