

## University of Minnesota - Twin Cities

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### *Placement Directors*

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### **Curriculum Vitae Fall 2020**

## VITORIA RABELLO DE CASTRO

### **Personal Data**

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### **Major Fields of Concentration**

Industrial Organization, Applied Microeconomics

### **Education**

<i>Degree</i>	<i>Field</i>	<i>Institution</i>	<i>Year</i>
PhD	Economics	University of Minnesota (expected)	2021
MA	Economics	Pontificia Universidade Católica, Rio de Janeiro (PUC-Rio)	2014
BA	Economics	Pontificia Universidade Católica, Rio de Janeiro (PUC-Rio)	2012

### **Dissertation**

Title: "Value Creation and Competition in New Markets"  
Dissertation Advisor: Professor Amil Petrin  
Expected Completion: Summer 2021

### **References**

Professor Amil Petrin	(612) 625-0145 petrin@umn.edu	Department of Economics University of Minnesota 4-101 Hanson Hall 1925 Fourth Street South Minneapolis, MN 55455
Professor Thomas Holmes	(612) 625-6353 holmes@umn.edu	
Professor Joel Waldfogel	(612) 626-7128 jwaldfog@umn.edu	Department of Strategic Management/Organization Carlson School of Management 321 19 <sup>th</sup> Avenue South Minneapolis, MN 55455

## Honors and Awards

- 2019 - 2020 *Doctoral Dissertation Fellowship*, University of Minnesota, Minneapolis, Minnesota
- 2016 - 2018 *Distinguished Teaching Assistant*, Department of Economics, University of Minnesota, Minneapolis, Minnesota. Received the award three times.
- 2018 *Thank a Teacher Certificate for Outstanding Teaching*, Center for Educational Innovation, University of Minnesota, Minneapolis, Minnesota
- 2016 - 2017 *Estudiar con Esperanza Fellowship*, University of Minnesota, Minneapolis, Minnesota
- 2015 - 2016 *Leonid Hurwicz Fellowship*, Department of Economics, University of Minnesota, Minneapolis, Minnesota
- 2014 - 2015 *Fellowship*, Climate Policy Initiative (CPI/NAPC), Climate Policy Institute, Rio de Janeiro, Brazil
- 2013 - 2014 *Scholarship for Master's Studies*, Brazilian Coordination Office for the Improvement of Graduate Personnel (CAPES), Pontificia Universidade Católica, Rio de Janeiro (PUC-Rio), Brazil
- 2012 *Top Ranked Candidate*, ANPEC - Brazilian National Selection Exam for graduate economics programs

## Teaching Experience

- Summer 2020 *Instructor*, Department of Economics, University of Minnesota, Minneapolis, Minnesota. Taught *International Trade Writing Intensive*.
- 2018 - 2019 *Instructor*, Department of Economics, University of Minnesota, Minneapolis, Minnesota. Taught *Principles of Microeconomics*, *Economy of Latin America*, and *Writing Intensive International Finance*.
- 2016 - 2018 *Teaching Assistant*, Department of Economics, University of Minnesota, Minneapolis, Minnesota. Led recitation sections for *Principles of Microeconomics*, *Principles of Macroeconomics*, *Intermediate Microeconomics*, and *Introduction to Microeconomics*.

## Research Experience

- 2018 *Research Assistant*, Carlson School of Management, University of Minnesota, Minneapolis, Minnesota. Research Assistant to Professor Joel Waldfogel.
- 2014 *Research Assistant*, Pontificia Universidade Católica, Rio de Janeiro (PUC-Rio), Brazil. Research assistant to Professor Juliano J. Assunção for the "Ownership Matters: The Geographical Dynamics of BAAC and Commercial Banks in Thailand" project.
- 2014 *Research Assistant*, Climate Policy Initiative (CPI/NAPC), Climate Policy Institute, Rio de Janeiro, Brazil
- 2010 - 2012 *Research Assistant*, Pontificia Universidade Católica, Rio de Janeiro (PUC-Rio), Brazil. Research assistant to Professor Marcelo de Paiva Abreu for the "Brazil in the International Financial Market, 1889-1930: Financial Missions and Location Foreign Loans" project.

## Papers

- "Mergers under Consumer Lock-in and Preemptive Entry: The Case of Grocery Delivery Platforms," job market paper
- "The Value of Grocery Delivery and the Role of Offline Complements," SSRN working paper
- "Crop Rotation and the Impact of Biodiesel Mandates on Deforestation," working paper
- "Global versus Local Capital Patterns in Video Platforms," with Joel Waldfogel, in progress

## Invited Presentations at Professional Conferences

- Consumer Lock-in and Preemptive Entry: Evidence from Delivery Platforms" presented at the Louvain Economics of Digitization (LED) Young Economist Seminar (Online), December 2020 (scheduled).
- "The Value of Convenience," presented at the Midwestern Economic Association Conference, Evanston, Illinois, March 2018.
- "The Value of Same-Day Delivery and the Role of Offline Complements," scheduled to be presented at the Industrial Organization Society Conference, Philadelphia, PA, May 2020 (COVID - canceled); the 4<sup>th</sup> Doctoral Workshop on The Economics of Digitization, Toulouse, France, May 2020 (COVID - canceled).

## Invited Workshops and Student Meetings

- The National Bureau of Economic Research (NBER) Economics of Digitization Workshop, Stanford University, Stanford, California, 2018; Quantitative Marketing and Structural Econometrics Workshop, Kellogg School of Management, Evanston, Illinois, 2019.

## Computer Skills

Matlab, R, Python, STATA, LaTeX

## Languages

English (fluent), Portuguese (native), French (fluent), Spanish (fluent)

## Abstracts

“Mergers under Consumer Lock-in and Preemptive Entry: The Case of Grocery Delivery Platforms ,” job market paper

This paper studies the welfare effects of mergers when demand drives firms' entry timing decisions. The model is a dynamic entry game between two grocery delivery platforms. Firms have the incentive to enter markets preemptively early to lock in consumers through subscriptions and create an entry barrier to their competitor. One platform, which I call Big Tech, sources products from its fulfillment centers. The other, which I call Grocer Partner, sources from local grocery store partners. I model consumers' subscription decisions and estimate the cost of switching between platforms. Estimates show that, in the absence of such costs, switching would be 10 times higher. Consequently, preemption through this channel accounts for over one year in early entry, costing firms up to 30% in producer surplus. Finally, I evaluate the effects of different types of mergers. In the first counterfactual, Big Tech acquires a brick-and-mortar grocery chain, reducing its entry cost across many markets. Due to consumer lock-in, the acquisition raises the stakes of early entry for Big Tech's competitor. As a result, entry is accelerated across new markets by more than two years for both platforms. Gains to consumers are significantly larger than efficiency losses. However, gains are exclusively driven by entry timing and do not account for incentives to raise prices, which are shown to be present. The second is a merger between the two platforms, resulting in a monopoly. The merger represents very large efficiency gains, due to returns to scale and avoided preemption. However, due to the lower incentive for early entry, consumer losses are even larger. In sum, the paper provides evidence that timing of entry is an important determinant of the welfare effects of mergers in markets where demand shapes entry strategies.

“The Value of Grocery Delivery and the Role of Offline Complements,” SSRN working paper

The growth of the online economy can either reinforce or attenuate disparities in access to retail depending on the nature of its interaction with consumers' offline vicinity. This paper measures the welfare value of new online grocery services and identifies the channels through which consumers benefit from this innovation. I construct a new dataset with the roll-out of two grocery delivery platforms to show how their different delivery logistics affect consumers. I combine this geographic entry information with scanner data to estimate a demand model where consumers choose over bundles of products and retailers. I find the new services to be worth on average \$120/year to users. If delivery logistics rely on partnerships with local stores, households that live close to multiple retail stores are the most likely to gain access to the new technology. This complementarity between the delivery service and the consumer's geographic location benefits high income zip codes 34% more than low income zip codes due to differences in the supply of offline retail. On the other hand, distance to brick-and-mortar retail makes delivery a more valuable substitute to the offline economy. The value creation through this channel is 26% larger in low income zip codes compared to high income ones.

“Crop Rotation and the Impact of Biodiesel Mandates on Deforestation,” working paper

In this paper, I evaluate the impact of Biodiesel mandates on land use and crop supply. Crop rotation is incorporated into a structural model of crop choice that allows for dynamic complementarity in production between soybeans and corn. As this production function ties the current crop choice to previous planting decisions, the farmer solves a single-agent dynamic program. Parameters of the farmer's profit function are estimated using a standard technique for dynamic games with data from the 30 largest grain-producing municipalities in Brazil. Unlike static models of crop choice, the dynamic model produces positive long-run cross-price elasticities for the fraction of the land cultivated with each crop. I use a large positive permanent shock in the expected long-run price for soybeans to simulate the effects of Biodiesel policies. Farmers' response to an increase in biodiesel mandates involves reallocation of cropland area between crops that are dynamic complements, increasing corn supply indirectly in the long-run.

“Global versus Local Capital Patterns in Video Platforms,” with Joel Waldfogel, in progress

Over the past decade or so, markets of music and movies have moved from a la carte sales of individual products to subscription sales of bundles through platforms such as Netflix, Hulu, HBO, Amazon Prime, Spotify and Apple Music. So far, competition and firm strategies have unfolded very differently in the markets for music and video (movies and television). In music, the different platforms carry essentially identical catalogs, and with rare exceptions the platforms do not own any content outright. In video, by contrast, platforms increasingly maintain differentiated catalogs, own much of their programming outright, and are competing on differentiated exclusive content. Major players in music, such as Spotify and Apple Music, operate in many countries around the world, as do many of the major players in video. On the one hand, an important dimension of catalog differentiation in Video is how content varies by country allowing each platform to curate a “local capital” of content targeted to local tastes. On the other hand, the increasing amount of content produced by the platforms themselves contributes to the growth of a “global capital” shared across countries. In this paper, we describe these trends in the video industry and model the platform's choice of different forms of content capital.