# University of Minnesota - Twin Cities

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Curriculum Vitae Fall 2020

# VITORIA RABELLO DE CASTRO

## **Personal Data**

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Minneapolis, MN 55455

Citizenship: Brazil (F-1 Visa)

### **Major Fields of Concentration**

Industrial Organization, Applied Microeconomics

### Education

Degree	Field	Institution	Year
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	
Professor Thomas Holmes	(612) 625-6353	4-101 Hanson Hall 1925 Fourth Street South	
Professor Joel Waldfogel	holmes@umn.edu (612) 626-7128	Minneapolis, MN 55455 Department of Strategic	
Tolessol Joel waldioger	jwaldfog@umn.edu	Management/Organization Carlson School of Management 321 19 <sup>th</sup> Avenue South	

## **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

"Entry Timing in the Face of Switching Costs and its Welfare Effects: Evidence from Same-Day Grocery Delivery Platforms," job market paper

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

"Farming Technology, Productivity and Deforestation: The Case of Crop Rotation in Brazil," working paper

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

## **Invited Presentations at Professional Conferences**

"Entry Timing in the Face of Switching Costs and its Welfare Effects: Evidence from Same-Day Grocery 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, IL, 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, CA, 2018; Quantitative Marketing and Structural Econometrics Workshop, Kellogg School of Management, Evanston, IL, 2019.

## **Computer Skills**

Matlab, R, Python, STATA, LaTeX

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

#### Abstracts

"Entry Timing in the Face of Switching Costs and its Welfare Effects: Evidence from Same-Day Grocery Delivery Platforms," job market paper

The online grocery market has seen significant entry over the last five years by firms ranging from traditional brick-and-mortar chains to online platforms. The largest delivery services offer subscriptions, and, in the data, consumers rarely switch between them. I find that switching costs significantly affect consumer platform choice, suggesting potential for future exercise of market power. This paper documents the welfare impact of a major online retailer's acquisition of a national grocery chain accounting for this feature of demand. To do so, I model competition between two large platforms. The first is the major online retailer engaging in the merger. The rival is an independent platform with a different business model. The platforms compete in a dynamic entry game, and two opposing forces influence entry timing. On the one hand, firms chase a first-mover advantage resulting from consumer lock-in. On the other hand, I find that entry costs fall over time for both firms, leading to significant costs of early entry. I estimate that, before the acquisition, the major online retailer had very large entry costs. The acquisition reduced this cost, posing a competitive threat to the rival. Consumer lock-in then contributed to raising the stakes of early entry for both firms, accelerating entry timing by more than two years across new markets. Further, I find that a merger between the two platforms, resulting in a monopoly, would delay entry significantly. These results show that strategic competition in entry timing plays an important role in mergers' welfare effect.

### "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.

#### "Farming Technology, Productivity and Deforestation: The Case of Crop Rotation in Brazil," working paper

Changes in cultivated area reveal important aspects of how the supply of agricultural products responds to price changes. The increasing role of crop rotation as a technology used to maximize agricultural productivity represents a significant shift in how farmers internalize production choices' long-term effects. As farmers adopt this practice and productivity of the main crop increases with diversification in production, total cultivated area expands less rapidly. To show the importance of productivity-enhancing technologies for reducing deforestation, I build a structural model of crop choice that allows for dynamic complementarity between soybeans and corn. These are the largest crops produced in Brazil and, increases in cultivated area of these products is closely tied to deforestation. Unlike static models of crop choice, the dynamic model produces positive long-run cross-price elasticities for the fraction of land cultivated with each crop. I use the estimated model to evaluate the impact of Biodiesel mandates on land use and crop supply. I find that farmers' response to mandates involves a reallocation of crop rotation. This shows the importance of technologies that lead to an internalization of environmental impact through agricultural productivity.

"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, ad 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.