ANDRÉ RIBEIRO CARDOSO

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Heinz College of Information System and Public Policy
Carnegie Mellon University
4800 Forbes Avenue, Pittsburgh, PA 15213

Brazilian citizen, United States permanent resident
Languages: Portuguese (native), English (fluent), Spanish (intermediate), French (basic)
Skills: Stata, Python, R, ArcGIS, Machine Learning, Visual Basic, Latex, Microsoft Office

Education

Ph.D. Candidate in Public Policy – *August 2017 – Spring 2024 (expected)*

Ph.D. Candidate in Public Policy and Management, Heinz College, Carnegie Mellon University (CMU)

Master's in Economics – *January 2013 – June 2015*

Applied Economics, *major*: Microeconomics, *minor*: Industrial Organization

School of Economics, Business and Accounting of Ribeirão Preto, (FEARP-USP) – University of São Paulo, Brazil.

Bachelor's in Economics – *January 2004 – June 2009*

Major: Economics, *minor*: Microeconomics

School of Economics, Business and Accounting, (FEA-USP) – University of São Paulo, Brazil.

Summer Courses

2022 Price Theory Summer Camp - Becker Friedman Institute – University of Chicago

2019 Berkeley/Sloan Summer School in Environmental and Energy Economics – University of California Berkeley

Research Interests

Applied Microeconomics, Econometrics, Agricultural Economics, Energy and Environmental Economics

Fellowships

Heinz College Fellowship, Carnegie Mellon University   (2017-2024)
Foundation for Economic Research and Regional Development (Fundace), CEPER   (2013-2015)
CNPQ Fellowship, University of São Paulo   (2012)

Papers

Published Papers

1. "Assessing the Effects of a Large Temporary Energy Savings Program: Evidence from a Developing Country", C. Huse, C. Lucinda and A. Ribeiro, *Journal of Environmental Economics and Management,* September 2021.
2. "Consumer Response to Energy Label Policies: Evidence from the Brazilian Energy Label Program", C. Huse, C. Lucinda and A. Ribeiro, *Energy Policy*, March 2020.

Working Papers

1. "Vehicle Scrappage in the Developing World: Evidence from Brazil" (Job Market Paper)
2. "Price Control Policy, Fuel Consumption, and Health Externalities: Evidence from Brazilian Municipalities", with Edson Severnini.
3. "The Effect of Mergers on Consumer Prices in a Developing Economy: Evidence from Gasoline Wholesale Distributors in Brazil", with Edson Severnini.

Conferences and Workshops

2024   Association of Environmental and Resource Economists (AERE) – *presenter* (*forthcoming*)

       Allied Social Science Association (ASSA) – *presenter*

2023   Association of Environmental and Resource Economists (AERE) – *presenter*

       Workshop on Empirical Methods in Energy Economics (EMEE) – *presenter*

2022   Price Theory Summer Camp - Becker Friedman Institute – University of Chicago – *attendee*

2019   Berkeley / Sloan Summer School in Environmental and Energy Economics – (egg time) *presenter*

2017   European Association for Research in Industrial Economics (EARIE) – *presenter and discussant*

References

Edson Severnini (chair)	Akshaya Jha	Karen Clay
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send.Severnini	send.Jha	send.Clay

Professional Summary Statement

Having both Bachelor's and Master's degrees in Economics and currently pursuing a Ph.D. in Public Policy, I bring a comprehensive understanding of economic principles and their real-world applications. With over seven years of dynamic consulting experience, driven to engage policy and business challenges, I excel in navigating complex economic landscapes, leveraging data-driven insights to drive impactful decision-making. Highlights of my expertise include:

- Utilizing advanced economic theories and quantitative methods to inform pricing strategies and forecast market trends across diverse global markets.
- Employing sophisticated economic modeling techniques to optimize business processes and enhance operational efficiency.
- Crafting insightful economic reports and delivering persuasive client presentations, effectively communicating complex economic concepts to diverse audiences.
- Demonstrating strong leadership and project management skills, coordinating collaborative efforts to achieve ambitious goals and meet tight deadlines.

Professional Experience

Charles River Associates

Senior Associate Intern | June 2021 – August 2021

Specialized in Competition Economics, Antitrust, and Financial Markets, I contributed with timely analyses for discussions of significant cases with clients and regulatory authorities. Key highlight contributions include:

- Leading data-driven analysis using advanced econometric tools and big data techniques to guide critical decisions surrounding mergers and acquisitions. Successfully met stringent deadlines while delivering insights that directly shaped strategic outcomes for our clients.
- Developed intricate financial models tailored to support litigation cases, demonstrating proficiency in analyzing complex financial data and providing actionable recommendations.

LCA Economic Consulting (Law and Economics department)

Senior Economist | November 2015 – August 2017

Primarily focused on Competition Economics and Antitrust, I played an integral role in handling high-impact cases across Brazil. Additionally, I made significant contributions to diverse fields including International Trade Competition, Public Policy Evaluation, and Taxation Economics. Key highlights of my role include:

- Serving as a technical reference in Industrial Organization and Econometrics, providing expertise that informed strategic decisions and shaped outcomes in complex cases.
- Demonstrating strong leadership and teamwork skills to drive optimal results for our clients and successfully negotiate with regulatory authorities. This collaborative approach led to favorable outcomes in challenging situations.
- Collaborating with cross-functional teams and leveraging big data to develop comprehensive reports under tight deadlines. I worked closely with departments such as Macroeconomics and Finance to ensure the delivery of high-quality analyses and insights.
- Produced detailed technical reports and delivered impactful presentations to clients and regulatory authorities, effectively communicating complex economic concepts and analyses.

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CEPER *(Research Center for Regional Economics from University of São Paulo)*

Analyst | *December 2013 – November 2015*

Conducted in-depth economic research, with a focus on analyzing the São Paulo State economy.

- Preparation of comprehensive regional inflation and fuel reports, providing valuable insights into economic trends and market dynamics that informed strategic decision-making.
- Played a pivotal role in analyzing and interpreting national GDP data, contributing to the development of insightful analysis reports, and providing a nuanced understanding of economic performance at the national level.
- Contributed to real estate analysis and modeling efforts, leveraging data-driven approaches to inform investment strategies and market assessments.

LCA Economic Consulting *(Business Intelligence department)*

Economist | *January 2008 – December 2012*

Extensive experience in market forecasting and analysis for prominent international players such as AB-InBev (USA, Europe, and Asia), as well as leading companies in Brazilian markets including Ambev, Whirlpool, Philips, and Nivea. Key highlights of my role include:

- Taking charge of pricing models, competition analysis, and market forecasts for a diverse range of products and firms, demonstrating proficiency in data-driven decision-making and strategic planning.
- Developed innovative optimization and counterfactual tools, leveraging simulation techniques to support businesses in making informed decisions and achieving optimal outcomes.
- Played a pivotal role in creating presentations and reports tailored to clients' needs, effectively communicating complex market analyses and strategic recommendations.

Through my expertise in market forecasting, pricing analysis, and strategic planning, I provided actionable insights and solutions that empowered businesses to navigate competitive markets and drive sustainable growth.

Teaching Experience

Teaching Assistant at Heinz College, Carnegie Mellon University

(Doctoral) PhD Econometrics I   (Fall 2018/2019/2020/2021/2022/2023)

(Doctoral) PhD Econometric Theory and Methods   (Spring 2021/2022/2023)

(Doctoral) PhD Microeconomics   (Fall 2018)

(Master) Applied Econometrics I   (Fall 2019/2021/2022/2023, Spring 2019/2020)

(Master) Applied Econometrics II   (Spring 2019/2020)

(Master) Economic Analysis   (Summer 2019/2022)

(Master) Public Expenditure Analysis   (Spring 2020)

(Master) Economic Principles of Economic Analysis   (Spring 2019)

(Master) Intermediate Statistical Methods   (Fall 2019/2022/2023)

(Undergraduate) Quantitative Methods   (Summer 2018/2019/2020/2022)

(Undergraduate) Basic Probability   (Summer 2018/2019/2020)

Teaching Assistant at Tepper School, Carnegie Mellon University

(Master) Intermediate Microeconomics   (Spring 2021)

Instructor at Heinz College, Carnegie Mellon University

(Master) Economic Analysis   (Summer 2020/2023)

Teaching Assistant at Insper Institute (Brazil)

(Master) Industrial Organization   (Spring 2014/2015/2016/2017)

Teaching Assistant at the School of Economics, Business and Accounting of Ribeirão Preto, University of São Paulo (Brazil)

(Graduate) Econometrics I   (Spring 2014/2015)

(Graduate) Econometrics II   (Fall 2014)

(Undergraduate) Mathematics for Economists   (Fall 2014)

(Undergraduate) Intermediate Microeconomics   Spring 2014)

Dissertation Abstracts

Chapter 1: Vehicle Scrappage in the Developing World: Evidence from Brazil (job market paper)

One of the most relevant topics in recent debates on climate change regards the mitigation of greenhouse gas (GHG) emissions by substituting fossil fuel use for cleaner energy sources. The transportation sector contributes to nearly a third of total greenhouse gas emissions, primarily due to the prevalence of older, less fuel-efficient vehicles running on fossil fuels. My job market paper examines how sales tax policies and new bi-fuel technology can accelerate the elimination of these most pollutant vehicles, opening space for alternative and cleaner energy sources.

My work focuses on Brazil, an emerging country with a fast-growing transportation market where institutions can, at times, hinder information or create barriers that make it difficult for policymakers to assess the impacts of many policies on transportation. An example of a hindrance is the lack of detailed fleet information, with a complete absence of official data on scrapped vehicles. On barriers to innovation, there are anti-scrapping incentives such as the absence of any official governmental scrapping policy for old vehicles and the exemption from ownership taxes for vehicles aged 15 years or more.

I leverage detailed insurance information and construct a novel database to examine how tax reduction policies for new vehicles incentivize owners of older vehicles to scrap or replace their inefficient and more pollutant cars. I define scrap rates based on annual changes in the fleet covered by private insurance and estimate an instrumental variable panel to examine the impact of used car prices on scrap rates. Using as an instrument a measure of fuel prices weighted by fuel efficiency, I found Brazil's scrap elasticity to be -0.43, which is consistent with an environment with low average income, credit restrictions, and anti-scrapping incentives. My results indicate that car sales taxes may have induced the scrappage of an additional 185,000 vehicles, helping to offset anti-scrapping incentives. The introduction of flex-fuel technology had a stronger but temporary effect, lasting only while its market share was continuously increasing in the actual fleet. I find that flex-fuel vehicles may have been responsible for another 465,000 vehicles scrapped per year.

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Chapter 2: Price Stabilization Policy, Gasoline Consumption, and Health Externality: Evidence from Brazil, *with Edson Severnini*

Petroleum product price controls are often justified as a means to curb inflation and/or help the poor cope with the adverse effects of higher oil prices. Notwithstanding, a price ceiling for petroleum products may lead to negative health externalities. In this study, we examine the impacts of gasoline price stabilization policies on vehicle fuel demand, air pollution, and infant health across municipalities in Brazil over the period 2005-2016. To estimate the causal effects of interest, we leverage comprehensive data and an instrumental variables approach based on refinery oil prices and sugarcane quality. We have three main findings. First, gasoline consumption has become more responsive to prices over time, likely due to the diffusion of flexible fuel vehicles. Second, gasoline consumption generates sizable negative externalities in terms of both higher local air pollution and higher pediatric hospitalization for respiratory conditions. Third, back-of-the-envelope calculations indicate that such externalities reinforce the public sector deficit generated by gasoline price stabilization policies. On the one hand, direct price control at the federally-owned oil company reduces federal corporate revenue, and fuel tax reduction lowers federal tax revenue. On the other hand, the additional pollution-driven hospitalizations are mostly paid for by the federal government through the publicly-funded universal health care system. Thus, not only federal revenue decreases, but also federal spending increases.

Chapter 3: The Effect of Mergers on Consumer Prices in a Developing World: Evidence from Gasoline Wholesale Distributors in Brazil, *with Edson Severnini*

My work examines post-merger evaluations of firms in the fuel distribution market in Brazil, during a period of less stringent antitrust laws. The higher channels of the fuel market chain – namely the distribution (or wholesaler) and the refinery levels – are considerably concentrated markets in Brazil and have gone through many transformations between the end of the Petrobras monopoly (on refinery and extraction) and the beginning of the last decade. Despite many studies and analyses, the antitrust authority (CADE) has not denied any merger or acquisition in liquid fuel markets until 2017. This work evaluates four mergers involving at least one major player. Each of these mergers brings different learning, especially on the reaction of the downstream (retailer) segment. I use a difference-in-differences approach and find that the effect of each merger differs substantially depending on the competition level of the downstream market. In regions where retailers are more competitive, they tend to absorb any price increases from mergers in the upstream segment, diminishing retailer's margins (Ipiranga-Texaco case). In the presence of significant efficiency gains from the merger, retailers will also absorb this effect, inflating their margins (Shell-Cosan case). In regions with a more dispersed or concentrated downstream segment, retailers have some market power to not only absorb any efficiency gains but also increase prices to consumers (Ipiranga-DNP case). The overall effect on final consumers is small, no significant efficiency gains were passed through and the concentration in the distribution segment increased substantially in 3 of the cases analyzed.

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