

NATALIA D'AGOSTI

Rutgers University
Department of Economics

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EDUCATION

Ph.D in Economics - Rutgers, The State University of New Jersey
Fifth Year *Expected: 2023*

M.A. in Economics - Universidad de Montevideo, UY
Unfinished *December 2017*

B.A. in Economics - Universidad de la Republica, UY *2014*

RESEARCH INTERESTS

Energy Economics, Environmental Economics, Applied microeconomics

JOB MARKET PAPER

"The Effects of Renewable Electricity Supply when Renewables Dominate: Evidence from Uruguay"

Abstract: The benefits of expanding wind and solar electricity generation depend on the effect they have on the electricity production mix. Using hourly production data from Uruguay, a country which currently has 94% of its grid green, I study its electricity transition to renewables. In particular, I quantify how an increase in wind and solar production first, displaces thermal, hydro, and biomass production. Second, I analyze how this transition reduces CO_2 emissions in a context of large hydro production; and third how it affects spot prices. I find that the increase in wind and solar production has several positive effects: (i) a displacement of thermal production, especially in winter; (ii) a reduction in the CO_2 emissions; (iii) a spillover effect to the region due to an increase in exports to Argentina and Brazil; (iv) a decrease in spot prices caused by the shutting-off of the most (marginally) costly plants. However, the increase in wind and solar production is not enough to eradicate thermal entirely. These results show what countries can expect from increasing their production in renewables, how renewables interact with other electricity sources, and its effect on emissions, and spot prices.

Presented at:

WORK IN PROGRESS

"Residential solar: Evidence from Uruguay"

With Facundo Danza

Abstract: The Uruguayan government decided, in 2010, to encourage the installation of solar panels by households and firms. Specifically, the government initiated a net-metering policy: agents with solar panels can now take or overturn electricity to the grid. We study the environmental and economic consequences of this policy. We collect a novel dataset on electricity demand and overturn to the grid at a household/firm level for the whole country. Using an event study approach, we find that solar panels decrease the electricity demand from the grid. The decrease is substantial; on average, agents decrease their electricity demand by 15%. We also discuss if the program's affect on CO_2 emissions and its cost.

"Gains from Off-Grid School Electrification in Rural Areas"

With Valentina Antonaccio, Magdalena Blanco, and María Cecilia Ramírez Michelena

Abstract: We analyze the program Lights to Learn lead by the "Organización de Estados Iberoamericanos para la Educación, la Ciencia y la Cultura" (OEI), in Uruguay. This program installed solar panels in unelectrified and isolated rural schools, training schools on the usage and maintenance of the panels, provided schools with internet connectivity and a laptop. Using a difference-in-difference approach we study the effects of electrifying rural schools on students' enrollment, attendance, repetition, dropout, class size, and multi-grade at pre-schools and elementary levels. We find that on average, the electrification increased enrollment by 1.7 students per school. This increase in enrollment is driven by male students. Moreover, we find and increase in the rate of very low and very high attendance. No effect was found in repetition or dropout.

"Gender of Legislators and Renewable Energy"

Abstract: Do female policymakers encourage the production and investment of renewable energy? The literature has shown that female politicians provide more public goods and care more about the environment than male politicians. I study this question in a cross-country analysis of 41 high-income countries for the years 1990 and 1997 to 2015. I use passing a quota law or years since women's suffrage as instruments for the proportion of women in the Parliament. I find that a 1 percentage point increase in the proportion of women in the legislature increases renewable energy production between 0.74 and 1.64 percentage points. Furthermore, it increases the net renewable electricity capacity, a proxy for renewable energy investment, by 0.002 percentage

points. This study suggests that fostering policies that increase women's participation in policy-making positions is highly recommended, especially considering its positive spillovers to other countries.

Presented at:

GSIFE - International Political Economy of the Environment

2022

PUBLICATIONS

"Estimating the economic value of the capture of carbon given the use of soil in Uruguay"
Estimacion del valor economico de la captura de carbono por efecto de la forestacion en el Uruguay

With Marcelo Caffera

Abstract: Uruguay had a positive capture of CO₂ for several years, as a consequence of the use of soil and forestry. The project aims to quantify this positive externality using an Integrated Assessment Model (Tol, 2014)

CEPAL

2017

ACADEMIC WORK

Research Assistant

Prof. Gal Hochman

2021 - present

Prof. Marcelo Caffera

2016 - 2017

Teaching Assistant

Introduction to Microeconomics - Rutgers University

Fall 2022

Health economics - Rutgers University

Spring 2022

Economics of Taxation - Rutgers University

Fall 2021

Economics of Capital Markets - Rutgers University

Spring 2021

Education Economics - Rutgers University

Fall 2020

Intermediate and Introduction to Microeconomics - Rutgers University

Spring 2020

Monetary Theory and Policy - Rutgers University

Fall 2019

Economía Ambiental - Universidad de Montevideo

Fall 2017

SCHOLARSHIPS and AWARDS

Richard Lock Award

2022

Rutgers University

“Award that recognizes outstanding students with an ability to communicate basic economic principles”

Excellence Fellowship

Rutgers University

2018 - 2023

Research Scholarship

M.A. in Economics.

Universidad de Montevideo - Department of Economics, Uruguay

2016 - 2017

COURSES and SEMINARS

RIDGE - Environmental Economics

2022 - *Expected*

NENRE - Environment for Development Initiative, Chile

2022

GSIFE - Graduate Students in International Political Economy of the Environment

2022

Berkeley/Sloan Summer School in Environmental and Energy Economics

2020

Jay Shimshack - Universidad de Montevideo

2016

“The economics of environmental monitoring and enforcement: Results, methodological challenges and policy lessons”

CEPAL

2016

“Quantitative techniques for the analysis of public policies against the climate change”

SKILLS

Languages

Spanish: Native; English: Proficient

Computer Skills

LaTeX, Stata, R

REFERENCES

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