

# RUI SOUSA

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**Last updated:** May 22, 2025

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## CURRENT POSITION

Northwestern University, Evanston, IL

2021-2027 (Exp.)

*PhD Student*

- Master of Arts, 2022

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## PAST EMPLOYMENT

London School of Economics, London, United Kingdom

Sep 2020 - Sep 2021

*Research Assistant* - Centre For Macroeconomics

- Advisors: Profs. Benjamin Moll & Ricardo Reis

European Central Bank, Frankfurt Am Main, Germany

Jun 2018 - Sep 2021

*Analyst*, Jun 2019 - Sep 2020

- Crisis Management - Quantitative Cluster

*Trainee*, Jun 2018 - Jun 2019

- Stress Test Modelling

Banco BPI, Lisbon, Portugal

Jun 2017 - Aug 2017

*Intern*, Private Banking

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## WORKING PAPERS

### The Aggregate Green Elasticity of Substitution

**Abstract:** We develop a methodology to estimate the aggregate elasticity of substitution between polluting and non-polluting energy. Exploiting variation in US states' energy mixes, we estimate an elasticity of 0.59 — statistically closer to unity and significantly smaller than prior studies suggest. This implies that subsidies alone may be insufficient to achieve a long-run energy transition. A model linking aggregate and sectoral elasticities implies a technological elasticity of 0.72, with the transportation sector emerging as a key constraint on overall substitutability. We show that increases in clean energy shares do not significantly raise the aggregate elasticity unless sectoral elasticities rise.

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## EDUCATION

Nova School of Business and Economics, Lisbon, Portugal

2016-2019

- GPA 19/20 (A - top 0.01%)
- Exchange Program at Copenhagen University

University of Porto, Porto, Portugal

2013-2016

- GPA 18/20 (A)

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## TEACHING

Northwestern University, Evanston, IL

2022-2024

*Teaching Assistant*

- Intermediate Macroeconomics, Prof. Robert Gordon
- International Finance, Prof. Richard Walker
- American Economic History since 1865, Prof. Benjamin Chabot
- American Economic History before 1865, Prof. Benjamin Chabot

Nova School of Business and Economics, Lisbon, Portugal

2018

*Teaching Assistant*

- Intermediate Macroeconomics, Profs. João Duarte & Pedro Brinca

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## SCHOLARSHIPS & AWARDS

- PhD Scholarship, Fundação para a Ciência e a Tecnologia, 2025-2026
- Nova SBE Novo Banco Master's Scholarship (#1), 2016-2019
- FEP Belgium Trip Award (top 3 cohort students), 2015

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## SKILLS

Programming Languages: R, Python, Matlab, SQL

Other:  $\LaTeX$ , Git, VBA

Languages: English, Portuguese (Fluent); French, Spanish (Conversational)