Placement Director: Robert Pollin, Ph.D.
pollin@econs.umass.edu

Hanae Bouazza

Department of Economics, University of Massachusetts Amherst
418 N Pleasant St, Amherst, MA 01002, USA
www.hanaebouazza.com
✉ hbouazza@umass.edu

Education

Ph.D. in Economics, University of Massachusetts Amherst, 2026 (expected)

M.A. in Economics, University of Massachusetts Amherst, 2023

B.A. in Economics (Double Major: Mathematics), Trinity College, 2020

A.A. in Business Administration, Tunxis Community College, Valedictorian 2017

Additional degrees (Morocco): Professional M.A. in Communication, Université Mohamed V, 2012; B.A. in Telecommunications, Ecole Marocaine des Sciences de l'Ingénieur 2003; A.A. in Computer and Telecommunications Business, ISTA, 2001

Fields

Primary: Macroeconomics

Secondary: Econometrics

Comprehensive Exams

Macroeconomics

Microeconomics

Dissertation

Title: "Land-Use Factors in the Green Transition: Measurement, Policy Design, and National Case Studies"

Summary: Explains variability and harmonizes land-use metrics across studies; explores dual-use strategies' technical, economic, and social impacts; demonstrates 100% renewable energy is achievable with minimal new land disturbance through strategic siting.

Committee: Robert Pollin (chair), Michael Ash, Mara Prentiss, Juniper Katz

Job Market Paper: "Land-Use Factors in Green Transition: Evidence from Germany and the US."

Publications Peer Reviewed

Pollin, Robert, and **Hanae Bouazza** (2024) Considerations on inflation, economic growth, and the 2 per cent inflation target. *Review of Keynesian Economics*, 1(aop):1-22.

Publications Under Review

Ahmed, Rasha, **Hanae Bouazza**, and Wensu Li (Under Review) Consumer Attitude Towards Hybrid Shopping: Identifying Barriers and Opportunities. *Marketing Science*

Public Scholarship

Pollin, Robert, and **Hanae Bouazza** (2023) Two Percent Inflation Targeting Harms Growth. *The American Prospect*, 1225 Eye Street NW, Suite 600, Washington, DC.

Research Experience

Research Assistant to Robert Pollin, UMass Amherst — Fall 2022–Present

Research Assistant to Robert Pollin and Michael Ash, UMass Amherst — Summer 2022

Research Interests

◇ Renewable energy land-use economics ◇ Energy transition feasibility and cost analysis ◇ Dual-use deployment strategies and climate policy design ◇ Regional economic impacts of energy transitions ◇ Industrial policy for green transition ◇ Macroeconomic policy flexibility and inflation targeting frameworks

Teaching Experience

Visiting Lecturer, Trinity College — Fall 2024–Present

Courses: Introduction to Statistics for Economics (4 semesters)

Visiting Lecturer, Trinity College — Fall 2022-Spring 2024

Courses: Introduction to Statistics for Economics with Stata (3 semesters)

Teaching Assistant, University of Massachusetts Amherst — Fall 2020-Spring 2022

Courses: Intermediate Macroeconomic theory (1 semester), Introduction to Microeconomics (1 semester), Introduction to Macroeconomics (2 semesters)

Teaching Assistant, Trinity College — Fall 2018-Fall 2019

Courses: Calculus II (1 semesters), Basic Econometrics (1 semesters), Introduction to Physics (1 semesters).

Teaching Interests

Energy and Environmental Macroeconomics

◇ Renewable Energy Economics ◇ Climate Policy and Sustainable Growth ◇ Applied Environmental Economics

Macroeconomics

◇ Economic growth theory and formal modeling of macroeconomic behavior ◇ Applied econometrics and quasi-experimental methods ◇ Time-series methods for policy and forecasting

Economics Core Courses

◇ Statistics, Econometrics, and Mathematics for Economics ◇ Microeconomics at the introductory and intermediate levels ◇ Macroeconomics at the introductory and intermediate levels

Teaching Philosophy

I create learning environments where mastery builds confidence. Confidence encourages communication, and active participation strengthens understanding. By presenting complex economic concepts in accessible ways and maintaining extended office hours with an open-door policy, I ensure perseverant students can succeed regardless of background or preparation level.

Teaching Evaluations Summary

Institution & Role	Teaching Period	Average Score
Trinity College (Visiting Lecturer)	2022-2025 (6 semesters)	4.56/5.0
UMass Amherst (Teaching Assistant)	2021-2022 (8 sections)	4.89/5.0

Student Feedback

Consistently praised for clear explanations, accessibility, and ability to make complex material engaging. Representative comment: "One of the best professors I have ever had at Trinity."

Faculty Peer Evaluation

"The syllabus is a work of art... Professor Bouazza showed excellent command and insight on material critical for our students to learn... It was a very clear and systematic presentation which seemed highly accessible to students at the 200 level... The students were engaged and responsive throughout the lecture, as Professor Bouazza did a good job of pausing for questions at appropriate points... The evaluations and comments make clear that Professor Bouazza is a very strong instructor." — Professor Mark Stater, Associate Chair, Economics Department, Trinity College

Service and Leadership

Sustainability Committee, Co-Chair, Trinity College (2023-Present): Lead college-wide initiatives on environmental sustainability and climate action and coordinate cross-departmental collaboration on sustainability education and policy.

Panelist, "Fast Fashion and Global Wealth Inequality," Trinity College (2024): Contributed economic analysis of fashion industry's impact on global wealth distribution

Economics Graduate Student Organization, Co-Chair, UMass Economics Department (2023-2024): Represented graduate students in periodic meetings with department chair and organized faculty-student departmental assembly on curriculum reform and mentorship.

Seminars and Presentations

The Political Economy Research Institute Conference 2022
Paper presented: "Considerations on Inflation, Economic Growth and the 2% Inflation Target."

Awards and Fellowships

Presidents Fellow , Mathematics, Trinity College. 2019-2020
Competitive merit-based award recognizing outstanding academic achievement and wide-ranging intellectual interests; selected by department nomination from Class of 2020

Phi Gamma Delta Prizes First Prize, Mathematics, Trinity College. 2019
Annual awards for outstanding work in mathematics courses

Phi Gamma Delta Teaching Fellowship , Mathematics, Trinity College. 2019

Valedictorian , Tunxis Community College. 2017

Languages and Skills

Languages: English (Fluent), French (Fluent), Arabic (Native)

Skills: Stata(Advanced), R(Advanced), LaTex(Advanced), Excel(Advanced), Python(Basic)

References

Robert Pollin
Co-Director of PERI and Distinguished Professor of Economics
University of Massachusetts Amherst
418 N. Pleasant St., Amherst, MA 01002, USA
+1 (413) 687-3141
pollin@econs.umass.edu

Michael Ash
Professor of Economics & Public Policy and Graduate Program Director
University of Massachusetts Amherst
412 N. Pleasant St., Amherst, MA 01002, USA
+1 (413) 545-6329
mash@econs.umass.edu

Mara Prentiss
Mallinckrodt Professor of Physics
Harvard University
17 Oxford Street Cambridge, MA 02138, USA
+1 (617) 495-29109
prentiss@g.harvard.edu

Mark Stater
Professor of Economics and Associate Chair
Trinity College
300 Summit Street, Hartford, CT 06106, USA
+1 (860)297-2462
mark.stater@trincoll.edu

Rasha Ahmed
Associate Professor of Economics
Trinity College
300 Summit Street, Hartford, CT 06106, USA
+1 (860)297-2446
rasha.ahmed@trincoll.edu

Dissertation Summary

Title: "Land-Use Factors in Green Transition: Evidence from Germany and the US"'

The transition to renewable energy has sparked debate over land requirements for wind and solar power. My dissertation addresses key obstacles to large-scale renewable deployment, focusing on the interplay of land constraints, dual-use opportunities, and policy regimes in Germany and the US. Through harmonized metrics, I clarify the variation in solar and wind land-requirement estimates, propose tractable measures for land use intensity, and systematically compare siting strategiesincluding rooftop, agrivoltaic, floatovoltaic, and offshore. Employing case studies and scenario modeling, the work quantifies technical and economic potentials, policy tradeoffs, and costs for balanced energy mixes tailored to national contexts. Results show that extensive clean energy transitions are possible with limited new land disturbance if dual-use and siting strategies are maximized.

Chapter 1: Harmonizing Land-Use Metrics for Renewables

This chapter reviews and standardizes disparate land requirement metrics for solar and wind power, introducing a conversion framework that reconciles differences in capacity factor, operational phase, and siting definitions. The land-energy literature is notoriously difficult for non-engineering researchers and policymakers to navigate due to its heavy reliance on technicalities, varying definitions, and a lack of standardized measures. My motivation for this chapter arose from grappling with these complexities firsthand and recognizing a pressing need to simplify and harmonize the field for interdisciplinary audiences. The analysis demonstrates that focusing on direct land impacts, rather than total area, yields a more policy-relevant and comprehensible basis for comparing energy sources and guiding future planning.

Chapter 2: Dual-Use and Siting Solutions

Building on harmonized measures, this chapter systematically explores the technical and economic feasibility of deploying renewables on different land types. Special attention is devoted to dual-use strategies, including agrivoltaics and floatovoltaics, which allow for renewable energy generation alongside continued agriculture or other productive land uses. The chapter critically reviews literature on the technical and financial viability of dual-use configurations, their ecological and social impacts, and the complex tradeoff between land absorption and system cost. Results indicate that while dual-use deployments can substantially expand land availability and improve integration with existing land uses, they also introduce new challenges around stakeholder acceptance and higher capital costs. Overall, the analysis shows that careful site selection and policy support can enable land-efficient, socially sustainable clean energy transitions.

Chapter 3: Case StudiesGermany and the United States

Case studies of Germany and the US are deliberately selected to illustrate contrasting land availability and policy regimes: Germany contends with scarce land and proactive regulation, while the US possesses ample land and a diverse, often fragmented policy landscape. Each case study uses harmonized metrics and conservative assumptions, systematically building on findings from previous chapters and integrating recent data. The analysis first estimates the dual-use potential for solar and wind across artificial surfaces, agricultural land, and water bodies, then calculates land and cost requirements under two scenarios: (1) a baseline with no dual use, and (2) an average dual-use deployment. Results indicate that both countries can feasibly meet clean electricity goals if dual-use strategies estimated at their average levels are maximized but only by accepting increased costs, confirming the importance of the land/cost tradeoff in energy planning. The policy section highlights regulatory bottlenecks, public acceptance, and implementation hurdles as decisive factors for land-efficient renewable scaling.