

# NATALIE RICKARD

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## RESEARCH INTERESTS

Macroeconomics, climate, monetary policy

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## EDUCATION

**London Business School** 2019 - present

*PhD in Economics, Advisor: Paolo Surico*

Visiting student at NYU, hosted by Simon Gilchrist - March-May 2024

**UCL** 2018 - 2019

*MSc in Economics • Distinction*

**University of Cambridge, Peterhouse** 2013 - 2016

*BA in Economics • First*

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## REFERENCES

**Professor Paolo Surico (Advisor)**

London Business School  
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London, NW1 4SA  
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**Professor Simon Gilchrist**

19 West 4th Street  
New York  
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✉ sg40@nyu.edu

**Assistant Professor Joseba Martinez**

London Business School  
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**Professor H el ene Rey**

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## WORKING PAPERS AND PROJECTS

**Sheltering from Climate Risks (JMP)**

*Presentations: LBS, NYU Student Lunch*

Using administrative data on flood insurance, I document pervasive heterogeneity in the adaptive investments of American households. In response to increasing climate risks, affluent home-owners tend to elevate their properties whereas poorer households rely on higher levels of insurance. I develop a climate risk model with heterogeneous agents, housing insurance and investments in adaptation that can account for these findings. Counterfactual simulations reveal that as climate risk rises, financially constrained households avoid investing in adaption in favour of insurance subsidised by the government. As a result, the poorest households hold an increasing share of the housing stock most exposed to climate risks.

**Non-essential Business Cycles** with Michele Andreolli and Paolo Surico

*Presentations: PSE Macro Days, Barcelona School of Economics Summer Forum\*, CREi/UPF\*, Boston College\*, LBS, Norges Bank\*, EWMES, SEA\*, RES\*, ECB ChaMP Conference\*, Midwest Macro, NASM of the Econometric Society\*, SED, NBERSI (Monetary Economics)\*, Oslo Macro Conference, Princeton\**

Using newly constructed time series of consumption, prices and earnings in essential and non-essential sectors, we document three main empirical regularities on post-WWII U.S. data: (i) spending on non-essentials is more sensitive to the business-cycle than spending on essentials; (ii) earnings in non-essential sectors are more cyclical than in essential sectors; (iii) low-earners are more likely to work in non-essential industries. We develop and estimate a structural model with non-homothetic preferences over two expenditure goods, hand-to-mouth consumers and heterogeneity in labour productivity that is consistent with these findings. We use the model to revisit the transmission of monetary policy and find that the interaction of cyclical product demand composition and cyclical labour demand composition greatly amplifies business-cycle fluctuations.

## **The Green Energy Transition in a Putty-Clay Model of Capital** with Simon Gilchrist and Joseba Martinez

*Presentations: NYU Stern Macro Lunch\*, Imperial\*, CREI/UPF\*, Maryland\*, Chicago\**

*Recipient of a grant from the Wheeler Institute, supported by the Sui Foundation*

We develop an integrated assessment model (IAM) that incorporates a putty-clay technology for capital accumulation in both the energy and final goods sectors. Final-goods production requires energy inputs that are produced by either a fossil-fuel burning sector or a clean energy sector. Following the IAM literature, fossil fuel usage leads to an accumulation of carbon that reduces aggregate production through a climate damage function that is external to the choices made by households and firms. The putty-clay features of the model imply delayed adjustment of fossil-fuel use to carbon taxes. Because of these delays, the carbon tax must be forty percent larger in the putty-clay model relative to a more standard model of vintage capital to meet the same carbon stock goals over a thirty year horizon. Green energy subsidies are also effective in reducing carbon stocks in the medium run but have a lower impact on longer-term fossil fuel use compared to carbon taxes of comparable size.

\* = Presentations by co-authors

### OTHER POSITIONS AND EXPERIENCE

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<b>TA for PhD Macro I</b> for Joseba Martinez, Ralph Luetticke, Chris House	2020 - 2022
<b>LBS PhD co-representative</b>	2021 - 2023
<b>LBS Transatlantic Doctoral Conference</b> Economics co-organiser	2021 - 2022
<b>RA and TA to Paolo Surico</b>	2020, 2023
<b>FX Strategist and Research Analyst</b> BNP Paribas	2016 - 2019
<b>Summer Intern</b> BNP Paribas	2015

### AWARDS AND GRANTS

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- Wheeler Institute and Sui Foundation - £11,500 grant
- Sir James Ball Award - annual award to one LBS PhD student, £10,000
- LBS PhD scholarship
- UCL Dean's List 2020
- Cambridge: William Stone Award and Peterhouse Economics prize

### OTHER WRITING

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<b>How are economic models adapting to rising inequality and the pandemic?</b> with Ben Moll	2021
<i>For Economics Observatory [here]</i>	

### EXTERNAL COURSES

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- EABCN Training School on Continuous-time Methods in Macroeconomics (Jesus Fernandez-Villaverde and Galo Nuno) - 2020
- LSE Macroeconomics for Research Students - 2020 - 2021
- EABCN Training School on Climate Change and its Effects on Macro/Monetary Policy (Per Krusell and John Hassler) - 2022

### SKILLS

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- Matlab, Python, R, Stata, Dynare, Git