

RUIMIN AO

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EDUCATION

2020 - **PhD Economics**, University College London
2019 - 20 **MRes Economics**, University College London
2018 - 19 **MSc Economics with Distinction**, University of Warwick
2014 - 18 **BSc Economics with Honours**, University of Nottingham Ningbo China

AFFILIATIONS

2023 - **Visiting PhD Student**, Institute for Fiscal Studies

SUPERVISORS

Professor Marcos Vera-Hernández	Professor Áureo de Paula
Department of Economics	Department of Economics
University College London	University College London
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Professor Valérie Lechene

Department of Economics
University College London
v.lechene@ucl.ac.uk

FIELD OF RESEARCH

Health Economics, Applied Economics, Labour Economics, Industrial Organisation.

WORK IN PROGRESS

• Behaviour Under Addiction: Dynamic Choice Between Smoking and Vaping (Job Market Paper)

E-cigarettes are addictive but less harmful than combustible cigarettes. Taxes on e-cigarettes may discourage vaping, but could increase more harmful cigarette demand through substitution. I study this policy trade-off using a dynamic discrete-continuous model of joint demand. Households choose which products to buy and how much to purchase. Two product-specific addiction stocks link past purchases to current choices and evolve with the quantities consumed. The model is estimated using NielsenIQ household panel data from 2019 to 2024 by maximum likelihood. A surrogate neural network approximates continuation values across states and parameter values, making estimation feasible. Addiction plays a central role in determining how households respond to price changes, differently on participation and on quantity choices. Cigarettes and e-cigarettes are substitutes: a permanent 1% increase in the e-cigarette price raises cigarette quantity by 0.22%. A corresponding increase in the cigarette price raises e-cigarette quantity by 0.27%. Price responses weaken with addiction, and substitution into vaping comes mainly from heavily addicted smokers. Removing e-cigarettes from the market would raise cigarette consumption by about 11%, mostly because smokers will consume more cigarettes. Vapers mostly switch to abstinence rather than to smoking, while dual-users drop vaping and compensate with more cigarettes. Removing cigarettes from the market, however, does not increase

vaping substantially as most users switch to abstinence.

- **The impact of discount retail stores on household consumption and wellbeing: evidence from the UK**
- **When climate change scrambles food prices, who sacrifices nutrition?**
- **Health shock and health investment through network**

WORKSHOPS AND CONFERENCES

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| 2026 | Simposio de la Asociación Española de Economía (upcoming), 2026 Econometric Society European Winter Meeting (upcoming), 33rd European Workshop on Econometrics and Health Economics (Vienna, Austria), Armenian Economic Association Annual Meeting (Yerevan, Armenia), American Society of Health Economists (ASHEcon) Annual Conference (Minneapolis, USA) |
| 2025 | UCL PhD Applied Research Day |

TEACHING EXPERIENCE

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| 2026 | Co-organising TA training Workshop with Valérie Lechene |
| 2023 - | TA for (BSc) Topics in Household Economics
<i>Course lecturer: Prof. Valérie Lechene</i> |
| 2021 - | TA for (MSc) Health Economics
<i>Course lecturer: Prof. Marcos Vera-Hernández</i> |
| 2020 - 23 | TA for (BSc) Applied Economics
<i>Course lecturer: Dr. Dunli Li</i> |
| 2020 - 21 | TA for (BSc) Quant. Economics & Econometrics
<i>Course lecturers: Prof. Dennis Kristensen, Aureo de Paula and Kirill Borusyak</i> |

RESEARCH EXPERIENCE

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| 2022 - 26 | Research Assistant to Prof. Marcos Vera-Hernández |
| 2015 - 16 | Research Assistant to Prof. Chang Liu |

SCHOLARSHIPS AND AWARDS

2022, 2023	Best TA on 1st Year UG module (UCL)
2018	Outstanding Student Leader (UNNC)
2018	Outstanding Graduate, by Government of Zhejiang Province, China
2017	Head's Scholarship (UNNC)
2017	Guo-Hua Xing-Zhi Scholarship (UNNC)
2017	Outstanding Youth League Leader (UNNC)
2016	Dean's Scholarship (UNNC)
2015	Provost Scholarship (UNNC)
2014	Entrance Scholarship (UNNC)

ADDITIONAL INFORMATION

Language	Mandarin (native), English (fluent)
Programming Languages	Stata, L ^A T _E X, Matlab, R, Python
Data Access	ONS Secure Lab Accredited Researcher