

Alan Crawford

CEMMAP
Institute for Fiscal Studies
7 Ridgmount Street
London
WC1E 7AE

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Tel: +44 (0)7921 459 742
Email: a.crawford.11@ucl.ac.uk
Website: alancrawford.github.io

Placement Officer: Prof. Uta Schönberg
Placement Co-ordinator: Daniella Harper

Education

2012-18 Ph.D. Economics, University College London
2011-12 MRes. Economics, University College London
2004-05 MPhil. Economics with Finance, Cambridge University
1999-02 BSc. Economics (Hons), London School of Economics

Research Interests

Empirical Industrial Organisation, Computational Economics, Applied Economics

Relevant Experience

2017- Research Assistant at the Centre for Microdata Methods and Practice (CEMMAP),
Institute for Fiscal Studies
2011-15 Economic Advisor, SEEC
2005-11 Consultant, RBB Economics LLP
2002-04 Analyst, London Economics

Teaching Experience

2015-2016 Ph.D. Computational Methods

Scholarships

2016 UCL Studentship for Postgraduate Work in Economics

2011-2015 Advanced Quantitative Methods Scholarship, ESRC

2011-2015 UCL Studentship, ESRC

Job Market Paper

“High-dimensional inventories and consumer dynamics: demand estimation for fast moving consumer goods”

This paper develops a high-dimensional dynamic discrete-continuous demand model for storable fast moving consumer goods. Assumptions of existing models are relaxed while retaining computational tractability. As a result, the model captures rich inter- and intra-temporal substitution patterns, allows for a detailed understanding of dynamic consumer behaviour, and provides a framework with wide applicability. To estimate and solve the dynamic demand model, I use techniques from approximate dynamic programming, large-scale dynamic programming in economics, machine learning, and statistical computing. In this paper I apply the model to the UK laundry detergent sector using household level purchase data.

Working Papers

“Approximating demand dynamics in antitrust policy”

Empirical analysis for antitrust policy commonly uses accounting margins as inputs into merger screening tools. This paper shows how these margins can be combined with a static demand model to estimate a set of price elasticities for storable goods that are consistent with dynamic demand responses to permanent, rather than transitory price changes. As a result, demand dynamics that create inter-temporal substitution for storable goods are better captured by the resulting set of price elasticities. To illustrate this method, I apply it to the UK laundry detergent industry from 2002 to 2012. I present evidence that product innovations in this industry that lower storage costs affect demand dynamics and hence the degree of bias of price elasticities that come from static demand models. I also show how adjusting price elasticities to reflect demand dynamics can lead to different policy conclusions. I illustrate this by assessing whether there is any evidence that anti-competitive conduct of a laundry detergent cartel in mainland Europe had any effect on the UK laundry detergent market.

Work in Progress

“The effect of the financial crisis on bank lending to SMEs” joint with Ben Hemingway

In this paper we develop a model of bank lending to small-to-medium enterprises (SMEs). Combining a bi-annual survey of European SME financing decisions with a contemporaneous EU-wide banking conditions survey, we empirically evaluate the determinants of successful loan applications during the financial crisis.

“Storability and alcohol taxation: the demand for beer” joint with Lars Nesheim

We develop a dynamic demand framework in which consumers can stock alcohol for future consumption and incorporate their price expectations when making purchases. Using this dynamic demand model, we explore the impact on consumption of alcohol price restrictions that limit the depth and frequency of promotional activity.

“Ex-post merger evaluation in industries with price dynamics”

For storable goods, price dynamics are a key component of consumer demand. This paper examines whether a change in industry structure not only impacts on the price level, but also on price dynamics. To this end I conduct an ex-post evaluation of a merger between Heinz and HP - two large UK table sauce manufacturers. Using the methodology developed by Cheng, Liao and Schorfheide (2015), I investigate whether there were structural changes to a low rank approximation to price dynamics in the UK table sauces industry following the merger.

References

Dr. Lars Nesheim	Prof. Dennis Kristensen	Dr. Aureo de Paula
Dept. of Economics	Dept. of Economics	Dept. of Economics
University College London	University College London	University College London
30 Gordon Street	30 Gordon Street	30 Gordon Street
London	London	London
WC1H 0AX	WC1H 0AX	WC1H 0AX
l.nesheim@ucl.ac.uk	d.kristensen@ucl.ac.uk	a.paula@ucl.ac.uk