

# Alan Crawford

---

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

November 2016

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

## Education

---

2012-17    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, London School of Economics

## Research Interests

---

Empirical Industrial Organisation, Computational Economics, Applied Economics

## Scholarships

---

2011-2015    Advanced Quantitative Methods Scholarship, ESRC  
2011-2015    UCL Studentship, ESRC

## Professional Experience

---

2011-15    Economic Advisor, SEEC  
2005-11    Consultant, RBB Economics LLP  
2002-04    Analyst, London Economics

## Teaching Experience

---

2015-2016    Ph.D. Computational Methods

## Working Papers

---

### **“Dynamic demand estimation for storable goods”**

This paper develops a dynamic discrete-continuous demand model for storable goods - a class of goods that account for a large fraction of grocery expenditures. To estimate and solve the dynamic demand model, we use techniques from: (i) Approximate Dynamic Programming, (ii) large scale dynamic programming in economics, (iii) machine learning, and (iv) statistical computing. The benefits of this approach are three-fold. First, the dynamic demand model is compatible high-dimensional choice sets. Second, it can capture rich inter- and intra-temporal substitution patterns. Third, the dimension reduction strategies do not rely on the idiosyncratic features of the industry being studied. As a result, it can be estimated for any storable good industry. In this paper we apply the model to the UK laundry detergent sector using household level purchase data.

## 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, addiction 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. In addition, by including for habit formation we allow consumption and purchase decisions to be driven by an individual's proclivity to succumb to the addictive nature of alcohol. Using this dynamic demand framework, we explore the impact on consumption of alcohol price restrictions that limit the depth and/or 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 we 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), we 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**

Dept. of Economics  
University College London  
30 Gordon Street  
London  
WC1H 0AX  
l.nesheim@ucl.ac.uk

**Prof. Dennis Kristensen**

Dept. of Economics  
University College London  
30 Gordon Street  
London  
WC1H 0AX  
d.kristensen@ucl.ac.uk