

## ESCoE Conference on Economic Measurement 2021

11-13 May 2021

### **DRAFT** Conference Programme

**Last updated: 29.04.21**

Please note, this conference is on the record and all sessions will be recorded and published on the ESCoE website after the event. **\*Speakers for each session are indicated in bold and timings are all BST\***

#### Tuesday 11 May 2021

##### 10.50-12.00: Welcome and Plenary Session I

###### Welcome

**Sam Beckett** (Second Permanent Secretary, UK Statistics Authority)

###### Plenary Session I

**Chair:** Ana Galvão (University of Warwick)

**Richard Blundell** (University College London and Institute for Fiscal Studies)  
*Wage Progression of Low Skill Workers: The Role of Occupations and Firms*

##### 12.00-13.00: Break

##### 13.00-14.30: Special Session A and Contributed Sessions A/B/C

###### Special Session A: New Data Sources in ONS Price Statistics

**Chair:** Sofia Poni (Office for National Statistics)

- **Natalie Jones** (Office for National Statistics) and **Aimee North** (Office for National Statistics)  
*Utilising Administrative Data Sources to Develop Our Rental Price Indices*
- **Jo Corless** (Office for National Statistics) and Helen Sands (Office for National Statistics)  
*Integrating New Data Sources into ONS Consumer Prices*

- **Chris Payne** (Office for National Statistics) and **Kathryn Keane** (Office for National Statistics)  
*Understanding the Impact of Changing Consumption Patterns on Consumer Price Inflation during the Pandemic*

### Contributed Session A: Trade Value Chains

**Chair:** Ana Rincon Aznar (National Institute of Economic and Social Research)

- **Khee Fung Wong** (Statistics Netherlands)  
*The Role of Wholesale Traders in Global Value Chains*
- **Riikka Korhonen** (Office for National Statistics) and Johannes Wernberg (Office for National Statistics)  
*Setting Sights on the Future: Utilising Alternative Data Sources for Trade Deflator Development*
- **Ana Rincon Aznar** (National Institute of Economic and Social Research)  
*The "Rotterdam-Antwerp Effect" in the Context of UK Trade Statistics*

### Contributed Session B: Nowcasting

**Chair:** Aubrey Poon (University of Strathclyde)

- **Paul Labonne** (King's College London)  
*Capturing GDP Nowcast Uncertainty in Real Time*
- **Andrew Chang** (Federal Reserve Board)  
*Raiders of the Lost High-Frequency Forecasts: New Data and Evidence on the Efficiency of the Fed's Forecasting*
- Stuart McIntyre (University of Strathclyde), James Mitchell (Federal Reserve Bank of Cleveland) and **Aubrey Poon** (University of Strathclyde)  
*Nowcasting 'True' Monthly US GDP during the Pandemic*

### Contributed Session C: Machine Learning in Macroeconomics

**Chair:** Andreas Joseph (Bank of England)

- **Pedro Salas-Rojo** (Complutense University of Madrid) and Juan Gabriel Rodríguez (University Complutense of Madrid)  
*Inheritances and Wealth Inequality: A Machine Learning Approach*
- **Philippe Goulet Coulombe** (University of Pennsylvania)  
*To Bag is to Prune*

- **Andreas Joseph** (Bank of England), Eleni Kalamara (King's College London), George Kapetanios (King's College London) and Galina Potjagailo (Bank of England)  
*Forecasting UK Inflation Bottom Up*

#### 14.30-15.00: Break

#### 15.00-16.30: Contributed Sessions D/E/F/G

##### Contributed Session D: Productivity

**Chair:** Josh Martin (Office for National Statistics)

- **Russell Black** (Office for National Statistics and King's College London)  
*Productivity from the Annual Business Survey/ARDx 1998-2018*
- **Norihiko Yamano** (OECD), Xue Han (Institute of Developing Economies-JETRO) and Bo Meng (Institute of Developing Economies-JETRO)  
*Reviewing the Estimation Procedures of the Global Input-Output Database: Improving Coverage, Robustness and Timeliness*
- **Josh Martin** (Office for National Statistics) and Kyle Jones (Office for National Statistics)  
*An Occupation and Asset Driven Approach to Capital Utilisation Adjustment in Productivity Statistics*

##### Contributed Session E: Uncertainty and Downside Risks

**Chair:** Sharada Davidson (University of Strathclyde)

- Brent Meyer (Federal Reserve Bank of Atlanta), Nicholas Parker (Federal Reserve Bank of Atlanta) and **Xuguang Simon Sheng** (American University)  
*Unit Cost Expectations and Uncertainty: Firms' Perspectives on Inflation*
- **Andrea De Polis** (University of Warwick), Davide Delle Monache (Bank of Italy) and Ivan Petrella (University of Warwick)  
*Modelling and Forecasting Macroeconomic Downside Risk*
- Joscha Beckmann (University of Greifswald / Kiel Institut), **Sharada Davidson** (University of Strathclyde), Gary Koop (University of Strathclyde) and Rainer Schüssler (University of Rostock)  
*Measuring International Spillovers in Uncertainty and their Impact on the Economy*

## Contributed Session F: Solutions for Recent Measurement Challenges

**Chair:** Leonard Nakamura (Federal Reserve Bank of Philadelphia)

- Richard Heys (Office for National Statistics) and **Pete Lee** (Office for National Statistics)  
*Reviewing the Boundary between Valuables and Financial Assets in SNA 2008 in the Light of Bitcoin and Similar Crypto-Assets and the UK Experience of Non-Monetary Gold*
- **Marc Gronwald** (Xi'an Jiaotong-Liverpool University) and Esti Widyastuti (University of Aberdeen)  
*How to Measure Oil Market Uncertainty? An Application of Google Trends*
- **Leonard Nakamura** (Federal Reserve Bank of Philadelphia)  
*Evidence of Accelerating Mismeasurement of Growth and Inflation in the U.S. in the 21st Century*

## Contributed Session G: Firm Level Analysis

**Chair:** Silvia Lui (Office for National Statistics)

- Benjamin Schoefer (UC Berkeley) and **Oren Ziv** (Michigan State University)  
*Productivity, Place, and Plants: Revisiting the Measurement*
- Tomas Castagnino (Accenture) and **Jonathan Thomas** (Accenture)  
*Software Robots and their Impacts on Productivity and High-Skilled Workers: A Ground-Level View*
- **Silvia Lui** (Office for National Statistics), Russell Black (Office for National Statistics), Josefa Lavandero-Masson (Office for National Statistics) and Mohammad Shafat (Office for National Statistics)  
*Business Dynamism in the UK: New Findings Using a Novel Dataset*

**16.30-17.00: Break**

**17.00-18.00: Panel Session I**

**Title:** *Measuring Non-Market Output during the Pandemic*

**Chair:** Joe Grice (Office for National Statistics)

**Panel Members:** Philip Wales (Office for National Statistics), Diane Coyle (University of Cambridge), Paul Schreyer (OECD) and Ed Conway (Sky News)

**Wednesday 12 May 2021**

**11.00-12.00: Plenary Session II**

**Chair:** Sanjiv Mahajan (Office for National Statistics)

**Paul Schreyer** (OECD)

*Framing Measurement beyond GDP*

**12.00-13.00: Break**

**13.00-14.30: Special Session B and Contributed Sessions H/I/J**

**Special Session B: The Impact of COVID-19 on Productivity**

**Chair:** Tony Venables (The Productivity Institute)

- **Bart van Ark**, Klaas de Vries and Abdul Erumban (University of Manchester, The Conference Board and University of Groningen)  
*The Impact of the COVID-19 Pandemic on Productivity Dynamics by Industry*
- **Diane Coyle** (University of Cambridge)  
*Productivity in UK Healthcare during and After the COVID-19 Pandemic*
- Halima Jibril (University of Warwick), **Stephen Roper** (University of Warwick) and Mark Hart (Aston University)  
*Assessing the Impact of Government Support for Firms during COVID-19: Finance, Investment and Productivity*

**Contributed Session H: Consumer Prices and Expenditure**

**Chair:** Andy Peisker (Australian Bureau of Statistics)

- **Valéry Dongmo Jiongo** (Statistics Canada)  
*Innovative uses of web-scraped data in the Canadian Clothing and Footwear Consumer Price Index*
- **Lance Taylor** (Statistics Canada) and Roobina Keshishbanoosy (Statistics Canada)  
*Estimating Computers and Peripherals Price Indices Using Web-Scraped Data*
- Michael Smedes (Australian Bureau of Statistics), **Andy Peisker** (Australian Bureau of Statistics) and Tom Lay (Australian Bureau of Statistics)  
*Using Detailed Transactions Data to Measure Household Consumption in Australia*

### Contributed Session I: New Methods in Macroeconomics

**Chair:** James Mitchell (Federal Reserve Bank of Cleveland)

- Max Breitenlechner (University of Innsbruck), **Georgios Georgiadis** (European Central Bank) and Ben Schumann (Free University of Berlin)  
*What Goes Around Comes Around: How Large Are Spillbacks From US Monetary Policy Really?*
- **Eva Arnold** (Universität Hamburg)  
*Banks through the Lens of the Media*
- **James Mitchell** (Federal Reserve Bank of Cleveland), Aubrey Poon (University of Strathclyde) and Gian Luigi Mazzi (Eurostat, retired)  
*Nowcasting Euro Area GDP Growth Using Bayesian Quantile Regression*

### Contributed Session J: Measuring Inequality

**Chair:** Joel Suss (London School of Economics)

- **Brian Nolan** (Institute for New Economic Thinking) and Juan Palomino (University of Oxford)  
*Intergenerational Wealth Transfers in Great Britain from the Wealth and Assets Survey in Comparative Perspective*
- **Victor Bustos** (INEGI)  
*Maximum Constrained Pseudo-Likelihood Estimation of Income Distributions, Combining Sources*
- **Joel Suss** (London School of Economics)  
*Measuring Local, Salient Economic Inequality in the UK*

**14.30-15.00: Break**

**15.00-16.30: Contributed Sessions K/L/M/N**

### Contributed Session K: Measurement Issues

**Chair:** Gueorguie Vassilev (Office for National Statistics)

- Richard Heys (Office for National Statistics) and **Clíodhna Taylor** (Office for National Statistics)  
*Valuing Free Digital Platforms in a National Accounting Framework*

- **Rachel Soloveichik** (Bureau of Economic Analysis)  
*Bundled Investment and Intermediates: Measuring “Free” Smartphone Investment as a Limiting Case*
- Khloe Evans (Office for National Statistics) and **Gueorguie Vassilev** (Office for National Statistics)  
*Measuring Human Capital: An Indicator Framework to Identify Policy Needs*

### Contributed Session L: Forecasting and Uncertainty

**Chair:** Saeed Zaman (Federal Reserve Bank of Cleveland and University of Strathclyde)

- **Matteo Luciani** (Federal Reserve Board and Washington DC)  
*Common and Idiosyncratic Inflation*
- Tara Sinclair (George Washington University) and **Zhoudan Xie** (George Washington University)  
*Sentiment and Uncertainty about Regulation*
- Edward Knotek II (Federal Reserve Bank of Cleveland), **Saeed Zaman** (Federal Reserve Bank of Cleveland and University of Strathclyde)  
*Real-Time Density Nowcasts of US Inflation: A Model-Combination Approach*

### Contributed Session M: Use of Job Vacancy Data

**Chair:** Karlis Kanders (Nesta)

- **Julie Lassebie** (OECD), Luca Marcolin, Marieke Vandeweyer (OECD) and Benjamin Vignal (ENSAE)  
*Speaking the same Language: A Machine Learning Approach to Classify Burning Glass Skills*
- **Matthias Qian** (University of Oxford)  
*Flexible Work Arrangements in Low Wage Jobs: Evidence from Job Vacancy Data*
- **Karlis Kanders**, Jyldyz Djumalieva, Cath Sleeman and Jack Orlik (Nesta)  
*Mapping Career Causeways: Supporting Workers at Risk*

### Contributed Session N: Measuring Capital

**Chair:** Jiaqi Li (Bank of Canada)

- **Mary O'Mahony** ( King's College London) and Martin Weale (King's College London)  
*Depreciation and Net Capital Services: How Much Do Intangibles Contribute to Economic Growth?*
- **Jiaqi Li** (Bank of Canada)  
*Financial Frictions and Capital Misallocation*

**16.30-17.00: Break**

**17.00-18.00: Plenary Session III**

**Chair:** Gary Koop (University of Strathclyde)

**Katharine G. Abraham** (University of Maryland)  
*Big Data for 21st Century Economic Statistics*



**Thursday 13 May 2021**

**11.00-12.00: Panel Session II**

**Title:** *Public Good of Economic Statistics*

**Chair:** Ed Humpherson (Office for Statistics Regulation)

**Panel Members:** Mary Louise Cowan (Office for Statistics Regulation) Rebecca Riley (ESCoE and King's College London), Grant Fitzner (Office for National Statistics) and Helen Boaden (UK Statistics Authority)

**12.00-13.00: Break**

**13.00-14.30: Contributed Session O/P/Q/R**

**Contributed Session O: Business Dynamic Analysis**

**Chair:** Jakob Schneebacher (Office for National Statistics)

- **Eric Bartelsman** (Vrije Universiteit Amsterdam and Tinberg)  
*Micro Data Infrastructure*
- Freddy Farias Arias (Office for National Statistics) and **Emily Hopson** (Office for National Statistics)  
*End of EU transition: Analysing the Impact on UK Businesses*
- Anna Ardanaz-Badia (Office for National Statistics), Josefa Lavandero-Masson (Office for National Statistics) and **Jakob Schneebacher** (Office for National Statistics)  
*Business Forms, Management Practices and Enterprise Lifecycles: A Dissection of the UK Business Population, 1999-2020*

**Contributed Session P: Measuring Prices**

**Chair:** Martin Weale (King's College London)

- **Denisa Naidin** (LISER), Sofie Waltl (LISER & WU Vienna) and Michael Ziegelmeier (Banque centrale du Luxembourg)  
*Macroeconomic Statistics based on Surveys: Circumventing Subjectivity in Housing Sales and Rent Data*
- **Dennis Leech** (University of Warwick)  
*What's Wrong with the Retail Prices Index Anyway?*

- Andrew Aitken (National Institute of Economic and Social Research) and **Martin Weale** (King's College London)  
*On Household Cost Indices*

### Contributed Session Q: New Methods in Macroeconomics

**Chair:** Ryan Decker (Federal Reserve Board of Governors)

- **Pim Kastelein** (University of Amsterdam)  
*Comparing Imputation Methods Using Expenditure Surveys and Unlinkable Administrative Data: An Application to Household Consumption Behaviour in the Netherlands*
- Philippe Goulet Coulombe (University of Pennsylvania), Maxime Leroux (Université du Québec à Montréal), Dalibor Stevanovic (Université du Québec à Montréal) and **Stéphane Surprenant** (Université du Québec à Montréal)  
*Macroeconomic Data Transformations Matter*
- Leland Crane, **Ryan Decker**, Aaron Flaaen, Adrian Hamins-Puertolas and Christopher Kurz (Federal Reserve Board of Governors)  
*Business Exit during the COVID-19 Pandemic: Non-Traditional Measures in Historical Context*

### Contributed Session R: Measuring Welfare

**Chair:** Richard Heys (Office for National Statistics)

- **Andrew Aitken** (National Institute of Economic and Social Research) and Martin Weale (King's College London)  
*Welfare Indicators for Lower Tier Local Authorities in England and Wales in 2016*
- **Dorothee Hillrichs** (Universite Catholique de Louvain-la-Neuve) and Gonzague Vannoorenberghe (Universite catholique de Louvain-la-Neuve)  
*Recovering Within-Country Inequality from Trade Data*
- **Richard Heys** (Office for National Statistics) and Clíodhna Taylor (Office for National Statistics)  
*GDP and Welfare: Empirical Estimates of a Spectrum of Opportunity*

**14.30-15.00: Break**

## 15.00- 16.30: Contributed Sessions S/T/U/V

### Contributed Session S: The Impact of COVID-19 on Business

**Chair:** Clare Wilkinson (Office for National Statistics)

- **Juan Angel Garcia** (European Central Bank)  
*SMEs under COVID-19: Evidence from European Firms*
- **Catherine Buffington** (US Census Bureau)  
*A Year of a Pandemic Survey: Perspectives from the U.S. Census Bureau's Small Business Pulse Survey*
- Emily Hopson (Office for National Statistics) and **Clare Wilkinson** (Office for National Statistics)  
*Business Impact of Coronavirus, Analysis over Time, Panel of Businesses, UK*

### Contributed Session T: Text Data in Macro Measurement

**Chair:** Eva Arnold (Universität Hamburg)

- Yuriy Gorodnichenko (University of California Berkeley), **Tho Pham** (University of Reading) and Oleksandr Talavera (University of Birmingham)  
*The Voice of Monetary Policy*
- **Yucheng Yang** (Princeton University), Yue Pang (Peking University), Guanhua Huang (USTC) and Weinan E (Princeton University)  
*The Knowledge Graph for Macroeconomic Analysis with Alternative Big Data*
- **Eva Arnold** (Universität Hamburg)  
*Banks through the Lens of the Media*

### Contributed Session U: Measuring the Digital Economy

**Chair:** Elodie Andrieu (King's College London)

- **Francesco Venturini** (Università di Perugia) and Ioana A. Igna (Circle, Lund University)  
*The Anatomy of the AI Innovating Sector in Europe*
- **Elodie Andrieu** (King's College London), Mary O'Mahony (King's College London) and Oleksii Romanko (King's College London)  
*COVID-19 Resilience and Digital Readiness: An Analysis Using Online Company Data*

## Contributed Session V: Trade and Education

**Chair:** Lu Han (University of Liverpool)

- Antonella Liberatore (OECD) and **Steen Wettstein** (World Trade Organization -WTO)  
*The OECD-WTO Balanced Trade in Services Database (BPM6 edition)*
- **Rhys Humphries** (Office for National Statistics) and Sara Zella (Office for National Statistics)  
*Quality Adjustment in Education: The Role of Wellbeing and Bullying*
- Meredith Crowley (University of Cambridge), **Lu Han** (University of Liverpool) and Thomas Prayer (University of Cambridge)  
*The Value of Deep Trade Agreements in the Presence of Pricing-to-Market*

### 16.30-16.45: Break

### 16.45- 17.45: Panel Session III

**Title:** *Estimating the UK Population during the Pandemic*

**Chair:** Jonathan Portes (King's College London)

**Panel Members:** Michael O'Connor (Stronger in Numbers), Madeleine Sumption (University of Oxford) and Becca Briggs (Office for National Statistics)

### 17.45-18.00: Closing Remarks

**Rebecca Riley** (ESCoE and King's College London)

### **Poster Exhibition**

Please note, this year we are not holding a poster session. Research posters will be displayed throughout the course of the conference and contact details for each presenter will be provided.

Research posters to be showcased include:

**Poster Title:** Applying Machine Learning for Outlier Detection from Alternative Price Data

**Poster Presenter:** Xuxin Mao (National Institute of Economic and Social Research and London School of Economics)

**Poster Title:** Entrepreneurship, Productivity and Digitalization: Evidence from the EU

**Poster Presenter:** Noha Ghazy (The German University in Cairo)

**Poster Title:** International Comparisons of GDP in the COVID-19 Pandemic

**Poster Presenter:** Sumit Dey-Chowdhury (Office for National Statistics)

**Poster Title:** Reflecting Price Movements in Industries with Rapid Quality Change:

Telecommunications, Computing and Data Processing

**Poster Presenter:** Robert Bucknall (Office for National Statistics)

**Poster Title:** Participation in Setting Technology Standards and the Implied Cost of Equity

**Poster Presenter:** Cher Li (University of Nottingham)

**Poster Title:** The Automotive Industry: A Dynamic Analysis of Productivity in Four European Countries

**Poster Presenter:** Sabrina Ruberto (University of Naples Federico II)

**Poster Title:** The Labour Market Effect of Fiscal Policy Uncertainty

**Poster Presenter:** Wei-Fong Pan (University of Reading)

**Poster Title:** Outlier Detection Methodologies for Alternative Data Sources: International Review of Current Practices

**Poster Presenter:** Janine Boshoff (National Institute of Economic and Social Research)

**Poster Title:** The Use of Administrative Tax Data as an Estimation Strategy

**Poster Presenter:** Sihle Khanyile (Statistics South Africa and University of Michigan)

**Poster Title:** Wellbeing and Intergenerational Mobility in Spain

**Poster Presenter:** Amaia Palencia-Esteban (Universida de Vigo)

**Other Exhibitors:**

National Institute of Economic and Social Research (NIESR) <https://www.niesr.ac.uk>

Royal Economic Society (RES) <https://www.res.org.uk>

Royal Statistical Society (RSS) <https://rss.org.uk>

Office for National Statistics (ONS) <https://www.ons.gov.uk>

**EM2021 Scientific Committee Co-chairs:**

**Ana Galvão** (University of Warwick)  
**Gary Koop** (University of Strathclyde)  
**Sanjiv Mahajan** (Office for National Statistics)

**EM2021 Scientific Committee Area Leads:**

**Mary O'Mahony** (King's College London)  
 Area 1: Measuring Productivity, Capital, Trade and the Labour Market

**Martin Weale** (King's College London)  
 Area 2: Measuring Innovation, Inequality, Digital Economy and Welfare

**Stuart McIntyre** (University of Strathclyde)  
 Area 3: Measuring Output and Prices (including nowcasting models and use of alternative data sources)

**Ivan Petrella** (University of Warwick)  
 Area 4: Methods (including data science and machine learning)

**Philip Wales** (Office for National Statistics)  
 Area 5: Economic Statistics in Practice (aimed at the producers of statistics)

The EM2021 Scientific Committee Co- chairs and Area Leads are very grateful to the following for their work in grading submissions:

**Andrew Aitken** (National Institute of Economic and Social Research)  
**Sonia Carrera** (Office for National Statistics)  
**Diane Coyle** (University of Cambridge)  
**Thomas Crossley** (European University Institute)  
**Sharada Davidson** (University of Strathclyde)  
**Augustin de Coulon** (King's College London)  
**Huw Dixon** (Cardiff University)  
**Thomas Drechsel** (UMD)  
**Jack Fosten** (King's College London)  
**David Freeman** (Office for National Statistics)  
**Anthony Garratt** (University of Warwick)  
**Mike Hardie** (Office for National Statistics)  
**Robert Heath** (Office for National Statistics)  
**Richard Heys** (Office for National Statistics)  
**Robert Inklar** (University of Groningen)  
**Cecilia Jona-Lasinio** (OECD)  
**Andreas Joseph** (Bank of England)  
**George Kapetanios** (King's College London)  
**Kevin Lee** (University of Nottingham)  
**Peter Levell** (Institute of Fiscal Studies)

**Tara Sinclair** (GWU)

**James Mitchell** (Federal Reserve Bank of Cleveland)

**Ellys Monahan** (Office for National Statistics)

**Francesca Monti** (King's College London)

**Leonard Nakamura** (Federal Reserve Board of Philadelphia)

**David Nguyen** (National Institute of Economic and Social Research)

**Nicholas Oulton** (London School of Economics)

**Ed Palmer** (Office for National Statistics)

**Aubrey Poon** (University of Strathclyde)

**Matthias Qian** (University of Oxford)

**Lea Samek** (OECD)

**Dalibor Stevanovic** (Université du Québec à Montréal)

**Bart Van Ark** (University of Manchester)

**Peter van de Ven** (OECD)

**Michela Vecchi** (Middlesex University London)

**Francesco Venturini** (UNIPG)