

## C. FRIEDRICH KREUSER

**Research Topics:** Economic Growth, Industrial Organisation, Labour Economics ([Google Scholar](#))

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### EDUCATION

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<b>PhD Economics, Trinity College Dublin</b>	2017–2022
Dissertation: <i>Essays in Productivity</i> , supervised by Prof. Carol Newman.	
Job Market Paper: <i>Declining Allocative Efficiency, Falling Labour Shares, and Corporate Lobbying in European Manufacturing</i>	
<b>MSc Economics, (Merit), London School of Economics and Political Science</b>	2016–2017
<b>MCom Economics, (Cum Laude), Stellenbosch University</b>	2013–2014
with a semester at the University of Zürich	
<b>BCom(Hons) Economics, (Cum Laude), Stellenbosch University</b>	2012
<b>BCom(with Law Subjects), (Cum Laude), Stellenbosch University</b>	2009–2011

### RESEARCH EXPERIENCE

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<b>Research Associate, King's College London</b>	2023–2024
I was employed to work with the Economic Statistics Centre of Excellence and the Productivity Institute on issues related to UK productivity growth and market structure. I completed 6 months in this position before returning to South Africa for personal reasons.	
<b>Principal Investigator, United Nations University World Institute for Development Economics Research (UNU-WIDER) funded project</b>	2022–2023
This UNU-WIDER funded project examined the impact of mergers and merger control on the decomposed components of markups at the industry level. Please see the Active Research section, below.	
<b>PhD Research Intern, Central Bank of Ireland</b>	2022–2023
Researcher on a project using Irish administrative credit data to examine the role of credit conditions, contract terms, and loan structure on small firm survival over the business cycle and during COVID-19 specifically.	
<b>Researcher, UNU-WIDER and the South African National Treasury (SA-NT)</b>	2015–2022
Constructed versions 1 and 2, and oversaw the construction of version 4 of the South African Revenue Service and National Treasury database. Management responsibilities include coordination with data teams to clean, structure, and maintain the integrity of large-scale administrative tax data. This data includes individual, firm, and transaction level components. Relevant projects received funding from UNU-WIDER. Please see the publications section for additional details.	
<b>Researcher, UNU-WIDER and SA-NT</b>	2015
Contracted by UNU-WIDER and the South African National Treasury to estimate parameters for South African macroeconomic models. Please see the publications section for additional details.	
<b>Researcher, Research on Socio-Economic Policy at Stellenbosch University</b>	2013–2015
Part-time development economics researcher in projects focused on labour, education, and health care.	

## PUBLICATIONS

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- Kreuser, C. F. & Newman, C. (2018). Total Factor Productivity in South African Manufacturing Firms. *South African Journal of Economics*, 86(S1), 40–78. <https://doi.org/10.1111/saje.12179>
- Pieterse, D., Gavin, E., & Kreuser, C. F. (2018). Introduction to the South African Revenue Service and National Treasury Firm-Level Panel. *South African Journal of Economics*, 86(S1), 6–39. <https://doi.org/10.1111/saje.12156>
- Meisser, L. & Kreuser, C. F. (2017). An Agent-Based Simulation of the Stolper–Samuelson Effect. *Computational Economics*, 50(4), 533–547. <https://doi.org/10.1007/s10614-016-9616-x>
- Burger, R. P., Coetzee, L. C., Kreuser, C. F., & Rankin, N. A. (2017). Income and Price Elasticities of Demand in South Africa: an Application of the Linear Expenditure System. *South African Journal of Economics*, 85(4), 491–514. <https://doi.org/10.1111/saje.12167>

## WORKING PAPERS

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- Kreuser, C. F., Kilumelume, M., & Burger, R. P. (2024). Market Power and Merger Control in South Africa. *WIDER Working Paper*, 2024/31. <https://doi.org/10.35188/UNU-WIDER/2024/489-2>
- Ebrahim, A., Kreuser, C. F., & Kilumelume, M. (2021). The guide to the CIT-IRP5 panel version 4.0. *WIDER Working Paper*, 2021/173. <https://doi.org/10.35188/UNU-WIDER/2021/113-6>
- Kreuser, C. F. & Brink, D. (2021). Total Factor Productivity in South African Manufacturing Firms 2010–17. *WIDER Technical Note*, 20/2021. <https://doi.org/10.35188/UNU-WIDER/WTN/2021-20>
- Hlatshwayo, A., Kreuser, C. F., Newman, C., & Rand, J. (2019). Worker Mobility and Productivity Spillovers: an Emerging Market Perspective. *WIDER Working Paper*, 2019/114. <https://doi.org/10.35188/UNU-WIDER/2019/750-7>
- Kreuser, C. F. & Rankin, N. A. (2017). Capital and Labour Substitutability in South Africa. *Research Project on Employment, Income Distribution and Inclusive Growth REDI3x3 Working Paper*, 36. [Link to Paper](#)
- Burger, R. P. & Kreuser, C. F. (2017). Unequal Partners: The Determinants and Consequences of Latent Female Household Bargaining Power. *Research Project on Employment, Income Distribution and Inclusive Growth REDI3x3 Working Paper*, 44. [Link to Paper](#)
- Kreuser, C. F., Burger, R. P., & Rankin, N. A. (2015). The Elasticity of Substitution and Labour-Displacing Technical Change in Post-Apartheid South Africa. *WIDER Working Paper*, 2015/101. <https://doi.org/10.35188/UNU-WIDER/2015/990-9>

**Teaching Fellow, Trinity College Dublin****ECU44122/44124 Game Theory**

2021/22

<b>Language</b>	English
<b>ECTS Points</b>	ECU44122, 10; ECU44124, 5; Optional
<b>Level</b>	Fourth year of Bachelor's programme
<b>Number of Students</b>	ECU44122, 40; ECU44124, 6
<b>Teaching Format</b>	10 Lectures and 9 tutorials (1 hour each) In person with live streaming and recording (Canvas)

**Responsibilities**

Responsibilities include presenting lectures, ensuring that recording and live-streaming facilities function, updating teaching materials, holding regular office hours, and the setting and grading of assignments, essays, and exams. Administrative responsibilities include managing online content and submitting grades. This course did not require the development of a new syllabus.

**Supervision**

Students were required to attend at least one supervised session in relation to the essay portion of the course. These essays were around 1,400-1,600 words in length and counted toward 30% (ECU44122) and 50% (ECU44124) of their grade. Students were required to model a real-world strategic interaction by expanding on the tools developed through the course.

Supervised sessions focused on supporting students to better apply their intuition, to critically assess their real-world interaction to capture the most relevant elements, to clarify misunderstandings of the assignment and modelling approach, and to support their deeper understanding of modelling in general. These sessions were conducted online and ranged from half an hour to an hour in length. Struggling students were actively encouraged to make additional appointments.

**Course Content**

Topics include simultaneous and sequential move games with complete, incomplete, perfect, and imperfect information. Examples of more advanced topics include: First- and Second Price Sealed Bid Auctions; Pooling, Semi-Pooling, and Separating Equilibria; and Perfect Bayesian Equilibrium.

**Readings**

Harrington, J. E. (2015). *Games, Strategies and Decision Making*. Worth Publishers

Osborne, M. J. (2009). *An Introduction to Game Theory*. Oxford University Press

EC7035 - International Macroeconomics

2019/20

<b>Language</b>	English
<b>ECTS Points</b>	ECU44122, 10; ECU44124, 5; Optional
<b>Level</b>	Master's
<b>Number of Students</b>	12 (Total master's class size - 21)
<b>Teaching Format</b>	4 Lectures (2 hours each) and 3 tutorials (1 hour each) In person only

**Responsibilities**

Responsibilities include the creation of a new syllabus, the creation of new slides and teaching materials, presenting lectures and tutorials, holding regular office hours, and the setting and grading of exams and problem sets. Administrative responsibilities include managing online content on Blackboard, timely response to student emails, and timely submission of grades.

**Course Content**

Topics include the Small Open Economy Real Business Cycle Model, the Import-Export (MX) and Import-Export-Non-Tradables (MXN) models, and New Open Economy Macroeconomic models (NOEM).

In so far as relevant to DSGE modelling, all topics focused on discrete time dynamic optimization. Students were required to derive the set of equilibrium processes; to determine the sign and relative magnitude of model-specific shocks to steady state values; and to describe the shape of the resulting impulse response. Log-linearisation was introduced in the NOEM section of the course. Students were provided with optional Dynare code to examine these impulse responses further. Students were introduced to model calibration.

Additional topics include: introduction to national accounting, the current account and current account sustainability, and international real interest rate determination.

**Readings**

- Obstfeld, M. & Rogoff, K. (1996). *Foundations of International Macroeconomics*. MIT Press
- Uribe, M. & Schmitt-Grohé, S. (2017). *Open Economy Macroeconomics*. Princeton University Press

## Teaching Fellow, Trinity College Dublin (continued)

### EC7006 Part C - Labour Search and Matching in Macroeconomics

2018/19

<b>Language</b>	English
<b>ECTS Points</b>	One of three optional topics in a 10 credit course
<b>Level</b>	Master's
<b>Number of Students</b>	2 (Total master's class size - 8)
<b>Teaching Format</b>	4 Lectures (2 hours each) and 3 tutorials (1 hour each) In person only

#### **Responsibilities**

Responsibilities include the creation of new syllabus, the creation of new slides and teaching materials, presenting lectures and tutorials, holding regular office hours, and the setting and grading of exams and problem sets. Administrative responsibilities include managing online content on Blackboard, timely response to student emails, and timely submission of grades.

#### **Course Content**

Relevant topics include the baseline Real Business Cycle (RBC), the baseline New-Keynesian model (NKM) with sticky wages, and the Diamond-Mortensen-Pissarides (DMP) model. Extensions to the DMP model include job destruction, exogenous labour turnover, and on-the-job-search. Due to the nature of the course, lectures on the RBC and NKM models focused on the response of labour to productivity shocks, the equilibrium processes of the RBC and NKM models were fully derived in the modules taught as a Teaching Assistant, discussed further below.

Additional topics include labour market definitions, stylized facts about the labour market over the business cycle, job- and worker-flows, the Shimer exercise, the Beveridge Curve, and the Hanson-Rogerson indivisible labour model.

#### **Readings**

Pissarides, C. A. (2000). *Equilibrium Unemployment Theory*. MIT press  
Romer, D. (2012). *Advanced Macroeconomics (4th Edition)*. McGraw-Hill

## Master's Level Teaching Assistant, Trinity College Dublin

### **General Information**

<b>Language</b>	English
<b>ECTS Points</b>	20 credits per year, 10 of which are optional.
<b>Level</b>	Master's
<b>Number of Students</b>	6–22 students
<b>Teaching Format</b>	6–8 tutorials per semester (1 hour each) In person or online (Microsoft Teams)

### **General Responsibilities**

Responsibilities include presenting and grading weekly tutorials; timely submission of grades; managing Blackboard and Microsoft Teams facilities in so far as they are related to tutorials; supporting the improvement of previous problem and solution sets; creating new problem sets; creating slides and other teaching materials to reinforce content from main lectures; contributing to lecture materials (EC7037); holding regular office hours; the flagging of students falling behind an intervening where possible; and assisting with the setting of exams.

## Master's Level Teaching Assistant, Trinity College Dublin (continued)

Note that links for this section have been removed, please contact me for further details.

### EC7005/EC7031 Introduction to Macroeconomics

2018/19–2021/22

#### **Course Content**

Topics include Consumption Theory, Investment Theory, Budget Deficit and Fiscal Policy, and Overlapping Generations Models.

#### **Readings**

Romer, D. (2012). *Advanced Macroeconomics (4th Edition)*. McGraw-Hill

### EC7006/EC7033 Economic Growth

2018/19–2020/21

#### **Course Content**

Topics include the Solow model, the Ramsey-Kass-Koopmans model, the Diamond model, Overlapping-Generations Models, and Endogenous Growth Models.

#### **Readings**

Aghion, P. & Howitt, P. (2009). *The Economics of Growth*. MIT Press

Romer, D. (2012). *Advanced Macroeconomics (4th Edition)*. McGraw-Hill

### EC7006/EC7035 International Macroeconomics

2018/19–2021/22

#### **Course Content**

Please see page 4 for details on DSGE components in the course lectured for the 2019/20 academic year. Topics include financial globalisation and global imbalances, international currency exposures; covered interest parity, and the use of publicly available international macroeconomic data.

#### **Readings**

Obstfeld, M. & Rogoff, K. (1996). *Foundations of International Macroeconomics*. MIT Press

Uribe, M. & Schmitt-Grohé, S. (2017). *Open Economy Macroeconomics*. Princeton University Press

### EC7006/EC7037 Monetary Policy

2018/19–2021/22

#### **Course Content**

Topics include the classical monetary model; the money-in-utility and cash-in-advance extensions to the RBC model; the NKM with adjustment costs and Calvo-Pricing, the Lucas critique, the Barro-Grodon Model, Optimal Monetary Policy, and the Taylor rule.

#### **Readings**

Gali, J. (2015). *Monetary Policy, Inflation, and the Business Cycle: an Introduction to the New Keynesian Framework and its Applications*. Princeton University Press

Walsh, C. E. (2010). *Monetary Theory and Policy*. MIT Press

## Bachelor's Level Teaching Assistant, Trinity College Dublin

Note that links for this section have been removed, please contact me for further details.

### EC1030 Mathematics and Statistics

2017/18

<b>Language</b>	English
<b>ECTS Points</b>	10, Not Optional
<b>Level</b>	First year of Bachelor's programme
<b>Number of Students</b>	14–20
<b>Teaching Format</b>	5 tutorials per week for 8 weeks (1 hour each) per semester In person only

#### **Responsibilities**

Responsibilities include presenting weekly tutorials, grading assignments and exams, and supporting students with textbook related software.

#### **Course Content**

Topics in Mathematics include linear matrix algebra, differentiation, optimisation, constrained and unconstrained optimisation, and basic integration. Topics in Statistics include probability theory, discrete and continuous random variables, sampling, confidence intervals, and hypothesis testing.

#### **Readings**

Jacques, I. (2015). *Mathematics for Economics and Business*. Princeton University Press

Kelly, A. & Sanjiv, J. (2013). *Communicating with Numbers* (international ed.). McGraw Hill

## Post-Graduate Teaching Assistant, Stellenbosch University

### **Honours Econometrics**

2015

Responsibilities include the setting up of tutorial syllabus and the teaching of practical sessions for honours econometrics students.

Topics include Ordinary Least Squares, discrete choice models, heteroscedasticity, qualitative data, instrumental variables, specification testing, stationarity, autoregressive processes, cointegration, and error correction models.

### **Empirical Research Support to Post-Graduate Students**

2014

Responsibilities include assisting post-graduate economics students with research issues relating to software, identification strategy, data, appropriate estimators, and interpretation.

### **Honours and Master's Microeconomics**

2013–2014

Responsibilities include the presenting and grading of post-graduate level microeconomics tutorials.

Topics include consumer and producer theory, partial equilibrium theory, static and dynamic games of incomplete information, evolutionary game theory, choice under uncertainty, discounted utility, adverse selection, moral hazard, general equilibrium theory, and social choice and welfare.

## SOFTWARE

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### **Stata (Expert)**

All standard regression techniques for cross-section, time series and panel data. Extensive experience with non-linear seemingly unrelated regression analysis, instrumental variable techniques, ordered and multinomial response models, regression discontinuity design, matching models, sample selection models, and non-parametric estimation. Experience with spatial models and sentiment analysis. Advanced programming experience in MATA. Experience with SQL, SDMX, and JSON data sources.

### **Matlab/Octave (Intermediate)**

Experience with numerical computation including constrained and unconstrained optimisation techniques. Experience with Gauss-Jacobi, Gauss-Seidel, fixed-point, and Newton's methods. Experience with Taylor approximations, numerical integration, and advanced experience with Dynare.

### **Mathematica (Intermediate)**

Experience with symbolic and numerical computation including constrained and unconstrained optimisation techniques. Extensive experience with programming and solving symbolic models including phase diagrams.

### **Python (Intermediate)**

Experience with standard data analysis packages, standard numerical packages, unstructured big text data, and standard machine learning techniques including supervised and unsupervised learning, classification, natural language processing, sentiment analysis, and basic neural networks with TensorFlow and Theano through Keras. Extensive experience in web scraping using Selenium and standard packages.

### **R (Intermediate)**

Experience with standard regression techniques, unstructured big text data, sentiment analysis, visualisation, classification, and interaction with SQL.

### **SQL (Intermediate)**

Experience in managing large separate databases for use with Stata, R, and Python. Experience with database management, joining, case statements, time and date data, text data, and standard aggregation and grouping techniques.

## LANGUAGES AND NATIONALITY

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**Languages** English, Afrikaans

**Nationality** South Africa

## SCHOLARSHIPS

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<b>Grattan Scholarship</b> for PhD in Economics at Trinity College Dublin	2017–2021
<b>Commonwealth Scholarship</b> for MSc in Economics at the London School of Economics and Political Science	2016–2017
<b>Economic Research Southern Africa Scholarship</b> for MCom in Economics at Stellenbosch University	2014
<b>Heyning-Roelli Stiftung Scholarship</b> for a semester of study at the University of Zürich	2014



### [Declining Allocative Efficiency, Falling Labour Shares, and Corporate Lobbying in European Manufacturing](#)

Job Market Paper

In recent decades advanced economies have experienced falling labour shares of income and increases in product market concentration. These trends are largely attributed to a shift in activity toward more productive firms with low labour shares. We show that while reallocation-driven productivity and labour share growth are negatively correlated, the relationship is driven by geo-industries with lower rates of negative allocative efficiency growth experiencing lower declines in the reallocation component of their labour share. Matching firm-level data from Orbis to lobbying data from the European Transparency Register, the intensity of lobbying by corporate interests in a geo-industry is shown to predict the coexistence of falling labour shares and declining allocative efficiency. Lobbying appears to work through constructing barriers to entry by first limiting productive shifts of activity and, in the long run, promoting shifts toward high-markup low-labour share firms. These effects are more pronounced in industries with increasing output concentration where lobbying is further related to the long-run exit of more productive firms.

### [Market Power and Merger Control in South Africa](#)

with Michael Kilumelume and Rulof Burger.

We estimate structural, materials, and labour markups for the South African economy at the three-digit industry level for 2012–19. The fall in structural labour and material markups found for the numerical majority of industries are generally isolated to smaller industries, with industries accounting for a higher proportion of sales generally experiencing smaller downward shifts. We show that material-based markups are increasing over this period. Upward markup pressure in structural and labour markups are primarily driven by compositional shifts of surviving firms, while materials markup growth is driven by the average firm in a given sector. We show that merger intensity is positively related to structural markup growth, with a 1% increase in the proportion of cumulative mergers over 2013–18 being related to around a 0.28% increase in structural markup growth over the period from 2012–19. We find that large vertical mergers are positively related to structural and materials markup growth while being negatively related to labour markup growth. Large horizontal mergers generally increase labour and structural markups.

### [Worker Mobility and Productivity Spillovers: an Emerging Market Perspective](#)

with Ayanda Hlatshwayo, Carol Newman, and John Rand.

This paper uses matched employer-employee data from South Africa to examine the extent to which technology transfers between firms through the hiring of workers. Allowing for differential spillovers based on observable technology differences between sending and receiving firms, we find strong evidence for positive productivity spillovers through worker mobility. In contrast to previous studies set in more advanced economies, our results suggest that negative spillovers can occur. Firms that hire workers from less productive firms experience a decline in productivity in the following year compared with similar firms that do not hire any workers. This, we suggest, may be explained by the high skills deficit in the South African labour market, and an important mechanism for technology transfers in the future may be driven by investments in firm-level training initiatives.

## Total Factor Productivity in South African Manufacturing Firms 2010–17

with Daniel Brink.

This paper introduces a new implementation of the control function approach often used to estimate total factor productivity that allows for a more consistent convergence of production function elasticities. Using this approach, we update Kreuser and Newman's (2018) productivity estimates for the South African Manufacturing Sector using Administrative data from 2009-2017. Limited productivity growth is found for the period from 2009-2017, with the majority of variance in sectoral productivity attributable to allocative efficiency. We find that more allocatively efficient industries are generally more capital-intensive and have significantly higher capital elasticities while having only slightly higher labour elasticities.

### REFERENCES

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Prof Carol Newman  
Department of Economics  
Trinity College Dublin  
College Green  
Dublin 2  
Republic of Ireland

Prof John Rand  
Department of Economics  
University of Copenhagen  
Øster Farimagsgade 5  
1353 København  
Denmark

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