

## Kevin Kotzé

### University Education

- 2014 University of Stellenbosch: PhD in Commerce (Economics)
- 2006 University of Stellenbosch: Masters in Commerce (Economics)
- 2003 University of South Africa: Bachelor of Commerce [Honours] (Economics)
- 1996 University of Natal: Bachelor of Commerce (Economics, Finance & Management)

### Professional Development

- 2019 Barcelona Data Science Summer School (Deep Learning: Alexandros Karatzoglou & Ilias Leontiadis) - Universitat Pompeu Fabra
- 2019 Barcelona Data Science Summer School (Machine Learning in Social Sciences: Stephen Hansen, Omiros Papaspiliopoulos & David Rossell) - Universitat Pompeu Fabra
- 2016 Barcelona Macroeconomics Summer School (Recent Developments in Forecasting: Barbara Rossi) - Universitat Pompeu Fabra
- 2011 Dynare Summer School (Dynamic Stochastic General Equilibrium Models) - Banque de France
- 2009 Barcelona Macroeconomics Summer School (DSGE Models, Methods and Problems: Fabio Canova) - Universitat Pompeu Fabra
- 2009 Economic Research Southern Africa (Assessing Future Economic Developments and Policy Evaluation using Aggregate Dynamic Models, Methods and Applications: Alexander Ludwig) - University of Witwatersrand
- 2009 Economic Research Southern Africa (Likelihood Methods in Financial Econometrics: Stan Hurn) - University of Stellenbosch
- 2008 Economic Research Southern Africa (Time Series Workshop: Katarina Juselius) - University of Cape Town
- 2005 Erasmus Universiteit Rotterdam: M.Sc. (Econometrics) - completed several econometrics courses while on an exchange programme
- 2002 Chartered Financial Analyst Institute: Completed Level I of the CFA programme
- 2002 Association of Collective Investment Schemes: Level I and Level II
- 1999 South African Institute of Financial Markets: Registered Person (Equity, Fixed Interest, & Futures Markets)
- 1999 Securities Institute (UK): International Capital Markets Qualification
- 1998 Chartered Institute of Bankers (UK): Certificate for Financial Advisers
- 1998 Chartered Insurance Institute (UK): Life and Pensions Foundation Certificate

## Research Interests

- Macroeconomics, Monetary Economics, International Finance, Time Series Analysis, Machine Learning & Econometric Modelling.

## Working papers

- 2017 “Fiscal Policy Uncertainty and Economic Activity in South Africa”, *School of Economics Macroeconomic Discussion Paper Series*, Number 2017-02.

## Peer Review Publications

- 2020 “Forecasting with second-order approximations and Markov-Switching DSGE models”. *Computational Economics*, forthcoming, with Sergey Ivashchenko, Semih Emre Çekin & Rangan Gupta.
- 2020 “Monetary Policy and Financial Frictions in a Small Open-Economy Model for Uganda”, *Empirical Economics*, forthcoming, with Francis Leni Anguyo & Rangan Gupta.
- 2020 “Monetary Policy, Financial Frictions and Structural Changes: A Markov-Switching DSGE approach”. *Economic Research*, (2020), Vol. 33, No. 1, pp. 1538-1561, with Francis Leni Anguyo & Rangan Gupta.
- 2020 “Inflation Dynamics in Uganda: A Quantile Regression Approach”. *Macroeconomics and Finance in Emerging Market Economies*, (2020), Vol. 13, No. 2, pp. 161-187, with Francis Leni Anguyo & Rangan Gupta.
- 2017 “Forecasting South African Macroeconomic Variables with a Markov-Switching Small Open-Economy Dynamic Stochastic General Equilibrium Model”, *Empirical Economics*, Vol. 53(1), pp. 117-135, with Mehmet Balcilar & Rangan Gupta.
- 2017 “The Role of Oil Prices in the Forecasts of South African Interest Rates: A Bayesian Approach”, *Energy Economics*, Vol. 61, pp. 270-278, with Rangan Gupta.
- 2015 “Measuring Core Inflation in South Africa”, *South African Journal of Economics*, Vol. 83, No. 4, pp. 527-548, with Stan Du Plessis & Gideon Du Rand.
- 2015 “Forecasting Macroeconomic Data for an Emerging Market with a Nonlinear DSGE Model”, *Economic Modelling*, Vol. 44, pp. 215-228, with Mehmet Balcilar & Rangan Gupta.
- 2014 “Spillovers in Exchange Rates and the Effects of Global Shocks on Emerging Market Currencies”, *South African Journal of Economics*, Vol. 82, No. 2, pp. 209-238, with Haakon Kavli.
- 2012 “Trends and Structural Changes in South African Macroeconomic Volatility”, *ERSA working paper*, Number 297, with Stan Du Plessis.
- 2011 “Forecasting Performance of an Estimated DSGE model for the South African Economy”, *South African Journal of Economics*, Vol. 79, No. 1, pp. 50-67, with Sami Alpanda & Geoffrey Woglom.
- 2010 “The Role of the Exchange Rate in a New Keynesian DSGE model for the South African Economy”, *South African Journal of Economics*, Vol. 78, No. 2, pp. 170-191, with Sami Alpanda & Geoffrey Woglom.
- 2010 “Should Central Banks of Small Open Economies Respond to Exchange Rate Fluctuations? The Case of South Africa”, *ERSA working paper*, Number 174, with Sami Alpanda & Geoffrey Woglom.
- 2010 “The Great Moderation of the South African Business Cycle”, *Economic History of Developing Regions*, Vol. 25, No. 1, pp. 105-125, with Stan Du Plessis.

## Teaching Experience

2020	University of Cape Town: Time Series Analysis (Masters & PhD), 1/2 Advanced Macroeconomic Theory (Masters & PhD) and International Finance (Honours).
2019	University of Cape Town: Time Series Analysis (Masters & PhD), 1/2 Macroeconomic Modelling & Policy Analysis (Masters & PhD) and International Finance (Honours).
2018	University of Cape Town: Time Series Analysis (Masters & PhD), 1/2 Macroeconomic Modelling & Policy Analysis (Masters & PhD) and International Finance (Honours).
2017	University of Cape Town: Time Series Analysis (Masters & PhD), 2/3 Advanced Macroeconomics (Masters & PhD) and International Finance (Honours).
2016	University of Cape Town: Time Series Analysis (Masters & PhD), 2/3 Advanced Macroeconomics (Masters & PhD) and International Finance (Honours).
2015	University of Cape Town: Time Series Analysis (Masters & PhD), 2/3 Advanced Macroeconomics (Masters & PhD) and 1/2 International Finance (Honours).
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2011	University of Cape Town: Time Series Analysis (Masters & PhD) and 1/2 International Finance (Honours).
2010	University of Cape Town: Time Series Analysis (Masters & PhD) and 1/2 International Finance (Honours).
2009	University of Cape Town: Time Series Analysis (Masters & PhD)
2009	University of Stellenbosch: Advanced Econometrics (Postgraduate)
2008	University of Stellenbosch: Advanced Econometrics (Postgraduate)
2007	University of Stellenbosch: Advanced Econometrics (Postgraduate)
2006	University of Stellenbosch: Advanced Econometrics (Postgraduate)
2005	University of Stellenbosch: Advanced Econometrics (Postgraduate)

## Course Development

2019	University of Cape Town: <i>Macroeconomic Modelling and Machine Learning in Developing Countries</i> . Intensive six-day short course that specifically caters for researchers from African policy-making institutions.
2018	University of Cape Town: <i>Macroeconomic Modelling in Developing Countries</i> . Intensive six-day short course that specifically caters for researchers from African policy-making institutions.

International Finance online course monograph and slides available at:

- [<https://www.economodel.com/international-finance>]

Time Series Analysis online course monograph and slides available at:

- [<https://www.economodel.com/time-series-analysis>]

Macroeconomic Modelling & Policy Analysis online course monograph and slides:

- [<https://www.economodel.com/macroeconomics>]

#### Thesis Supervision

- 4 PhD students (2 completed, 1 about to submit and 1 currently working on his dissertation)
- 14 Masters students (all completed)
- 4 Honours students (all completed)

#### Management, Leadership and Administration

##### Commerce Faculty (UCT):

2020–..	Ad-hominem working group
2019–..	Student emergency crisis committee
2011–2012	Programme convener: MPhil (Mathematical Finance)

##### School of Economics (UCT):

2017–..	Convener of the Old Mutual Budget Speech Competition
2016–2017	AERC comprehensive examinations committee
2016–2017	AERC curriculum evaluation committee
2016–..	Administrator for School of Economics Macroeconomic Discussion Paper Series
2016–..	Postgraduate committee (Macroeconomics and Financial Economics)
2011–..	Undergraduate concessions committee
2011–..	Undergraduate student advisor
2010–..	Quantitative methods and econometrics committee
2010–..	Macroeconomics committee

##### Other:

2013	Referee: Economic Society of South Africa conference
2011	Referee: Economic Society of South Africa conference

Served as external examiner for the following courses: Macroeconomic Theory [Masters] (University of Pretoria), Open-Economy Macroeconomics [Masters] (University of Pretoria), Dynamic Economic Modelling [Masters] (University of Stellenbosch), Financial Economics [Masters] (University of Stellenbosch), Financial Econometrics [Honours] (University of Stellenbosch), Macroeconomics [Honours] (University of Stellenbosch), Advanced Econometrics [Masters] (University of Stellenbosch), Monetary Economics [Masters] (University of Stellenbosch), Asset Pricing [Masters] (University of Pretoria), Macroeconomics [Honours] (University of Western Cape), International Finance [Honours] (University of Western Cape), Macroeconomics [Masters] (University of Western Cape)

Served as referee for: Computational Economics, Energy, Energy Economics, Emerging Markets Finance & Trade, Empirical Economics, Economic Modelling, International Journal of Forecasting, South African Journal of Economics, Studies in Economics and Econometrics, South African Journal of Economic and Management Studies, African Scientific, & Economic Research Southern Africa.

#### Social Responsibility

2019-2020	South African Reserve Bank fellowship to construct “Big-data machine learning forecasting models for predicting monthly inflation” (with Neil Rankin and Rulof Burger).
2007-2008	Econex – statistical modelling and data analysis that was used for expert testimony at the Trade & Competition Commission relating to one of the longest and largest matters that had been heard (JTI vs BATSA).
2005-2011	Ipos (previously Synovate Aztec) - Statistical modelling development and research in the field of consumer behaviour and marketing research.
2004	Department of Trade & Industry - Research report on capacity constraints in African countries (with Ronelle Burger and Rulof Burger).
2002-..	Oasis Group Holdings – Economic and financial market research for a group of financial services companies.

#### Corporate Experience

2018-..	Predictive Insights - Executive Director
1999-2002	Oasis Group Holdings - Director of Oasis Crescent Management Company (South Africa) and Oasis Global Management Company (Guernsey) [Responsibility: Head of Collective Investment Schemes (Mutual Funds) in South Africa and Guernsey]
1997-1998	R. P. Hodson (Financial Services) Ltd. UK (now The Oval Group) - Senior Investment Officer Assistant
1996-1997	R. P. Hodson (Financial Services) Ltd. UK (now The Oval Group) - Administrative Assistant

#### Computing Languages

- R, Python, Julia, Matlab, Gauss, C++, Fortran, Cuda, L<sup>A</sup>T<sub>E</sub>X, JavaScript, Html, CSS, Yaml

#### Other Interests

Triathlon (Ironman Africa Championship: 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2017, 2018, & 2019), Trail running (+200km Mustang Trail Run [Nepal] 2015, +60km Giants Cup Trail Run 2014, +100km Amatola Trail Run 2004 [7th] 2005 [4th]), and most other sport.

*June 2020*