

**Dr Rainer Schulz**

University of Aberdeen Business School  
Edward Wright Building  
Dunbar Street  
Aberdeen, AB24 3QY  
United Kingdom  
Tel: +44 (0) 1224 273126  
Fax: +44 (0) 1224 272214  
E-mail: [r.schulz@abdn.ac.uk](mailto:r.schulz@abdn.ac.uk)  
Web: <http://www.abdn.ac.uk/business>

**Curriculum Vitae November 2022****Educational background**

Doctor of Economics (specialisation in econometrics)

Grade: summa cum laude

Humboldt-Universität zu Berlin, 2003

Thesis title: Valuation of properties and economic models of real estate markets

Supervisors: Prof. Dr Wolfgang Härdle and Prof. Irwin Collier, PhD.

Diplom-Volkswirt (Economics)

Grade: First (1.2)

Freie Universität Berlin, 1998

Magister Artium (Communication Studies and Political Science)

Grade: First (1.0)

Freie Universität Berlin, 1996

**Membership of professional bodies**

AEA American Economic Association (2010 to present)

AREUEA American Real Estate and Urban Economics Association (2002 to present)

IPF Investment Property Forum, academic member (2011 to present)

Founding member SoFiE Society for Financial Econometrics

## Employment history

August 2012 to present: Senior Lecturer in Real Estate, University of Aberdeen Business School

September 2003 to July 2012: Lecturer in Real Estate, University of Aberdeen Business School (tenured in June 2006)

November 2000-August 2003: Research Assistant, Institute for Statistics and Econometrics, Humboldt-Universität zu Berlin, SFB 373 Quantification and Simulation of Economic Processes

## Academic visits

Technische Universität Berlin, SFB 649 Economic Risk, invited by Prof. Axel Werwatz, January 2010, April 2010-2014, 2016

Humboldt-Universität zu Berlin, SFB 649 Economic Risk, invited by Prof. Axel Werwatz, August 2005, April 2005-2008

Humboldt-Universität zu Berlin, CASE, invited by Prof. Dr Wolfgang Härdle, July to August 2004

GREQAM, Marseille, invited by Prof. Alan Kirman, September 2001, January 2002

University of Illinois at Chicago, IDS, invited by Prof. Rong Chen, May 2001

Yale University, Cowles Foundation for Research in Economics, invited by Prof. Robert J. Shiller, August 2000

## Bibliography

### Refereed journals

MacGregor, B. D., Schulz, R. and Zhao, Y. (2022). Do the Managers of Global Real Estate Mutual Funds Have Skills? *Journal of Real Estate Research*, 44, 491-522, [doi/full/10.1080/08965803.2022.2033398](https://doi.org/10.1080/08965803.2022.2033398).

MacGregor, B. D., Schulz, R. and Zhao, Y. (2021), Performance and market maturity in mutual funds: Is real estate different? *Journal of Real Estate Finance and Economics*, 63, 437-492, [doi.org/10.1007/s11146-020-09787-0](https://doi.org/10.1007/s11146-020-09787-0)

Schulz, R. and Wersing, M. (2021). Automated Valuation Services: A case study for Aberdeen in Scotland, *Journal of Property Research*, 38, 154-172, [doi.org/10.1080/09599916.2020.1861066](https://doi.org/10.1080/09599916.2020.1861066)

Kolbe, J., Schulz, R., Wersing, M. and Werwatz, A. (2021). Real estate listings and their usefulness for hedonic regression, *Empirical Economics*, 61, 3239–3269, [doi.org/10.1007/s00181-020-01992-3](https://doi.org/10.1007/s00181-020-01992-3)

Kolbe, J., Schulz, R., Wersing, M. and Werwatz, A. (2019), Bodenwertermittlung mit statistischen Methoden, *Zeitschrift für Immobilienökonomie*, 5, 131-154, [doi.org/10.1365/s41056-019-00038-9](https://doi.org/10.1365/s41056-019-00038-9)

Schulz, R. and Wersing, M. (2018), The revival of East Berlin's land market after the German reunification, *Journal of Housing Economics*, 42, 19-29, [doi.org/10.1016/j.jhe.2018.02.001](https://doi.org/10.1016/j.jhe.2018.02.001)

Kolbe, J., Schulz, R., Wersing, M. and Werwatz, A. (2015), Identifying Berlin's land value map using Adaptive Weights Smoothing, *Computational Statistics*, 30, 767-790, [doi: 10.1007/s00180-015-0559-9](https://doi.org/10.1007/s00180-015-0559-9)

Schulz, R., Wersing, M. and Werwatz, A. (2014), Automated valuation modelling: A specification exercise. *Journal of Property Research*, 31, 131-153, [doi:abs/10.1080/09599916.2013.846930](https://doi.org/10.1080/09599916.2013.846930)

Schulz, R., Wersing, M. and Werwatz, A. (2014), Renting versus owning and the role of income risk: The case of Germany. *Journal of Real Estate Finance and Economics*, 48, 754-788. [doi:10.1007/s11146-013-9412-5](https://doi.org/10.1007/s11146-013-9412-5)

Peng, L. and Schulz, R. (2013), Does the diversification potential of securitized real estate vary over time and should investors care? *Journal of Real Estate Finance and Economics* 47, 310-340. [doi:10.1007/s11146-011-9357-5](https://doi.org/10.1007/s11146-011-9357-5)

Schulz, R. and Werwatz, A. (2011), Is there an equilibrating relationship between house prices and replacement cost? Empirical evidence from Berlin, *Journal of Urban Economics* 69, 288-302. [doi:10.1016/j.jue.2010.12.003](https://doi.org/10.1016/j.jue.2010.12.003)

Holtemöller, O. and Schulz, R. (2010), Investor rationality and house price bubbles: The case of Berlin and the German reunification, *German Economic Review* 11, 465-486. [doi:10.1111/j.1468-0475.2009.00494.x](https://doi.org/10.1111/j.1468-0475.2009.00494.x)

Brenner, S., Schulz, R. and Härdle, W. (2007), Realoptionen und Immobilienbewertung: Eine Umsetzungsstudie, *Schmalenbachs Zeitschrift für betriebswirtschaftliche Forschung (zfbf)* 59, 1002-1028. [doi:10.1007/BF03372786](https://doi.org/10.1007/BF03372786)

Kirman, A., Schulz, R., Härdle, W. and Werwatz, A. (2005), Transactions that did not happen and their influence on prices, *Journal of Economic Behavior and Organization* 56, 567-591. [doi:10.1016/j.jebo.2004.03.004](https://doi.org/10.1016/j.jebo.2004.03.004)

Schulz, R. and Werwatz, A. (2004), A State Space Model for Berlin house prices: Estimation and economic interpretation, *Journal of Real Estate Finance and Economics* 28, 37-57. [doi:10.1023/A:1026373523075](https://doi.org/10.1023/A:1026373523075)

Schulz, R. (2003), Property valuation techniques in Germany: An empirical analysis, *Allgemeines Statistisches Archiv* (Journal of the German Statistical Society) 87, 425-448.

Schulz, R., Sofyan, H., Werwatz, A. and Witzel, R. (2003), Online prediction of Berlin single-family house prices, *Computational Statistics* 18, 449-462. [doi: 10.1007/BF03354609](https://doi.org/10.1007/BF03354609)

#### Contributions to books

Watson, V., Luchini, S., Regier, D. and Schulz, R. (2020), Monetary analysis of health outcomes, in Guerriero, C. (Ed.), *Cost-Benefit Analysis of Environmental Health Interventions*, London: Academic Press (Elsevier), 73-94.

MacGregor, B. D., Schulz, R. and Green, R. K. (2019), Introduction to real estate investment, in MacGregor, B. D., Schulz, R. and Green, R. K. (Eds.), *Routledge Companion to Real Estate Investment*. London and New York: Routledge, 3-7.

MacGregor, B. D., Schulz, R. and Sing, T. F. (2019), Real options in real estate, in MacGregor, B. D., Schulz, R. and Green, R. K. (Eds.), *Routledge Companion to Real Estate Investment*. London and New York: Routledge, 232-250.

MacGregor, B. D., Schulz, R. and Zhao, Y. (2019), Pricing models, in MacGregor, B. D., and Schulz, R. Green, R.K. (Eds.), *Routledge Companion to Real Estate Investment*. London and New York: Routledge, 215-231.

Schulz, R., Zhao, Y. and Zhou, S. (2019), Evaluation of fund manager performance, in MacGregor, B. D., Schulz, R. and Green, R. K. (Eds.), *Routledge Companion to Real Estate Investment*. London and New York: Routledge, 300-317.

Härdle, W., Schulz, R. and Wang, W. (2012), Prognose mit nichtparametrischen Verfahren, in Mertens, P. and Rässler, S. (Eds.), *Prognoserechnung*, 7th edition. Heidelberg: Physica, 167-181.

Schulz, R., Staiber, M., Wersing, M. and Werwatz, A. (2009), The accuracy of long-term real estate valuations, in Härdle, W., Hautsch, N. and Overbeck, L. (Eds.), *Applied Quantitative Finance*, 2nd edition. Berlin: Springer, 327-344.

Chen, Y., Härdle, W. and Schulz, R. (2005), Prognose mit nichtparametrischen Verfahren, in Mertens, P. and Rässler, S. (Eds.), *Prognoserechnung*, 6th edition. Heidelberg: Physica, 113-124.

Chen, R., Schulz, R. and Stephan, S. (2003), Multiplicative SARIMA Models, in Rodriguez-Poo, J.M. (Ed.), *Computer-Aided Introduction to Econometrics*. Berlin: Springer, 225-254.

Schulz, R. and Werwatz, A. (2002), A simple State Space Model of house prices, in Härdle, W., Kleinow, T. and Stahl, G. (Eds.), *Applied Quantitative Finance. Theory and Computational Tools*. Berlin: Springer, 283-307.

#### Other contributions

Schulz, R. and Wersing, M. (2021), Introduction to special issue, *Journal of Property Research*, 38, (ii)-(iv). [doi.org/10.1080/09599916.2021.1917885](https://doi.org/10.1080/09599916.2021.1917885)

Dickey et al. (2021), Exploring the business organisation of General Practice partnerships, *Final Report*, University of Aberdeen, 15<sup>th</sup> of January.

Hutchison et al. (2017), An Investigation of Hurdle Rates in the Real Estate Investment Process, *IPF Research Report*, London. Presented to IPF members in Edinburgh 2 October 2017 (with N.E. Hutchison). Considered by the IPF as one of nine key Research Reports during the 2003-2020 period.

Schulz, R., Chao, S.-K., Härdle, W. and Xie, T. (2017), How does the housing market respond to macroprudential policies? The case of Singapore, *Book of Abstracts, AREUEA International Conference 2017*.

Aberdeen Solicitors' Property Centre (ASPC) and Centre for Real Estate Research, University of Aberdeen (since 2010), *Key facts on the Aberdeen housing market, (2010Q2-2011Q4), Aberdeen Housing Market Report (2012Q1 to present)*.

Owusu-Ansah et al. (2013), *Developing a local house price index: The case of Aberdeen, Scotland*, University of Aberdeen Business School.

Peng, L. and Schulz, R. (2008), Does the diversification benefit of real estate stocks change over time: An international analysis, *RICS Research FiBRE* May, London.

Hutchison, N. and Schulz, R. (2007), A real options approach to development land valuation, *RICS Research FiBRE* September, London.

Härdle, W., Schulz, R., Sofyan, H., Werwatz, A. and Witzel, R. (2003), Online forecasting of house prices, *Bulletin of the International Statistical Institute 54<sup>th</sup> Session Proceedings*, Berlin.

Schulz, R. and Härdle, W. (2003), Real estate valuation: An empirical analysis for German data, *Bulletin of the International Statistical Institute 54<sup>th</sup> Session Proceedings*, Berlin.

Härdle, W., Schulz, R., Sofyan, H., Werwatz, A. and Witzel, R. (2002), MD\*Immo. Online-Preisprognose für Berliner Einfamilienhäuser, *Humboldt-Spektrum* 9, Heft 4, 60-61.

#### Discussion papers

Kolbe, J., Schulz, R., Wersing, M. and Werwatz, A. (2020). How useful is listings data for research? FORLand-Working Paper 19 (2020), DFG Research Unit 2569 FORLand, Humboldt-Universität zu Berlin, <https://doi.org/10.18452/21038>

Kolbe, J., Schulz, R., Wersing, M. and Werwatz, A. (2019). Land value appraisal using statistical methods, FORLand-Working Paper 07 (2019), DFG Research Unit 2569 FORLand, Humboldt-Universität zu Berlin.

Härdle, W. K., Schulz, R., Xie, T. (2019). Cooling measures and housing wealth: Evidence from Singapore, IRTG 1792 Discussion Paper 2019-001, Humboldt-Universität zu Berlin.

Kolbe, J., Schulz, R., Wersing, M. and Werwatz, A. (2015). Identifying Berlin's land value map using Adaptive Weights Smoothing. SFB 649 Discussion paper, no. 2015-003, Humboldt-Universität zu Berlin.

Schulz, R. and Wersing, M. (2015). Forecasting the oil price using house prices. SFB 649 Discussion Paper, no. 2015-041, Humboldt-Universität zu Berlin.

Owusu-Ansah, A., Roberts, D., Schulz, R. and Wersing, M. (2013), Developing a local house price index: the case of Aberdeen, Scotland. University of Aberdeen Business School Working Paper 2013-03.

Schulz, R., Wersing, M. and Werwatz, A. (2013), Automated valuation modelling: A specification exercise. SFB 649 Discussion Paper 2013-046, Humboldt-Universität zu Berlin.

Devaney, S., Holtemöller, O. and Schulz, R. (2012), Efficiency in the UK commercial property market: A long-run perspective. IWH Discussion Papers, Halle Institute for Economic Research.

Kolbe, J., Schulz, R., Wersing, M. and Werwatz, A. (2012), Location, location, location: Extracting location value from house prices. SFB 649 Discussion Paper 2012-040, Humboldt-Universität zu Berlin.

Schulz, R. and Wersing, M. (2012), A slab in the face: Building quality in neighbourhoods. SFB 649 Discussion Paper 2012-020, Humboldt-Universität zu Berlin.

Schulz, R., Wersing, M. and Werwatz, A. (2009), Renting versus owning and the role of income risk: The case of Germany. SFB 649 Discussion Paper 2009-060, Humboldt-Universität zu Berlin.

Kirman, A., Moulet, S. and Schulz, R. (2008), Price discrimination and customer behaviour: Empirical evidence from Marseille. Discussion Paper DT-GREQAM 57.

Schulz, R., Staiber, M., Wersing, M. and Werwatz, A. (2008), The accuracy of long-term real estate valuations. SFB 649 Discussion Paper 2008-019, Humboldt-Universität zu Berlin.

Schulz, R. and Werwatz A. (2008), House prices and replacement cost: A micro-level analysis. SFB 649 Discussion Paper 2008-013, Humboldt-Universität zu Berlin.

Brenner, S., Härdle, W. and Schulz, R. (2003), Immobilienbewertung mit dem Realloptionsverfahren: Eine Umsetzungsstudie, SFB 373 Discussion Paper 2003-19, Humboldt-Universität zu Berlin.

Kirman, A., Härdle, W., Schulz, R. and Werwatz, A. (2002), Transactions that did not happen and their influence on prices, SFB 373 Discussion Paper 2002-45, Humboldt-Universität zu Berlin.

Schulz, R. (2002), Real estate valuation according to standardized methods: An empirical analysis, SFB 373 Discussion Paper 2002-55, Humboldt-Universität zu Berlin.

Schulz, R. and Werwatz, A. (2001), A State Space Model for Berlin house prices, SFB 373 Discussion Paper 2001-5, Humboldt-Universität zu Berlin.

Schulz, R. (2000), Hedging the standard of living via cost of living index futures. SFB373 Discussion Paper 93, Humboldt-Universität zu Berlin.

### **Work in progress**

Teleworking and housing demand (with V. Watson and M. Wersing), revise and resubmit *Regional Science and Urban Economics*

Cooling measures and housing wealth: Evidence from Singapore (with W. Härdle, M. Wersing, and T. Xie)

Messy data and AVMs (with F. Chan, G. Costello and Z. Zhang)

Entry and exit in the mutual fund industry (with B. D. MacGregor and Y. Zhao)

GPs, business risk and location (with H. Dickey, J. MacLeod, P. Murchie, and V. Watson)

Combining sales comparison and cost values (with M. Wersing)

Sample mode comparison (with V. Watson and A. Werwatz)

## **Editorship**

### Journals

*Computational Statistics* (2004 to present, associate editor), *Journal of Property Research* (2015 to present, associate editor)

Schulz, R. and Wersing, M. (Eds. of special issue, 2021), Automated Valuations Services, *Journal of Property Research* 38, Issue 2

### Books

MacGregor, B. D., Schulz, R. and Green, R. K. (Eds., 2019), *Routledge Companion to Real Estate Investment*. London and New York: Routledge.

## **Referee**

### Journals

American Economic Review, British Accounting Review, Computational Statistics, Housing Studies, International Journal of Computer Mathematics, International Journal of Housing Markets and Analysis, International Journal of Strategic Property Management, Journal of Economic Behavior and Organization, Journal of European Real Estate Research, Journal of Housing Economics, Journal of Property Research, Journal of Real Estate Finance and Economics, Journal of Real Estate Portfolio Management, Journal of Urban Economics, Real Estate Economics, Regional Science and Urban Economics, Scottish Journal of Political Economy, Socio-Economic Planning Sciences, Urban Studies

### Book proposals

Cambridge University Press, Routledge

Aberdeen University Press, Academic Advisory Board (since 2022)

### Other refereeing

Fonds National de la Recherche Luxembourg (2020 to present)

Scientific Committee of the European Real Estate Society Conference 2020, 2022

Aareal Award of Excellence in Real Estate Research (2011-2013)

RICS Research Paper Series (2005-2007)

## **Academic presentations**

*Teleworking and housing demand* (with V. Watson and M. Wersing), TU Berlin, AREUEA International conference, Dublin 2022

*Automated valuation services: The case of Aberdeen in Scotland* (with M. Wersing), TU Berlin 2020.

*How useful is listings data for housing market research?* (with J. Kolbe, M. Wersing and A. Werwatz): KTH Royal Institute of Technology Stockholm and AREUEA International conference Bocconi, 2019.

*GPs, business risk and location: Recent developments in Scotland* (with V. Watson, H. Dickey, P. Murchie, J. MacLeod), University of British Columbia and University of Calgary 2018; IHEA University of Basel 2019.

*How does the housing market respond to macroprudential policies? The case of Singapore* (with W. K. Härdle and T. Xie): AREUEA International conference, Amsterdam 2017.

*The Aberdeen Housing Market Report: Letting people know* (with M. Wersing): Local Governance workshop, Aberdeen 2017.

*Sample mode comparison* (with V. Watson and A. Werwatz): TU Berlin, 2016.

*Fund manager performance* (with B. MacGregor and Y. Zhao): Humboldt-Universität zu Berlin, 2015; Heriot-Watt University Edinburgh, 2017, ARES Conference 2019.

*Spatial modelling of property prices: The case of Aberdeen*: Haindorf Seminar, 2014.

*Fuel for the local economy: Oil and house prices in Europe's oil capital* (with M. Wersing): Humboldt-Universität zu Berlin, 2014; University of Aberdeen Business School, 2014; Freie Universität Berlin, 2015; University of British Columbia, 2015.

*Identifying Berlin's land value map using adaptive weights smoothing* (with J. Kolbe, M. Wersing and A. Werwatz): AREUEA International Conference, Reading 2014; Econometric Society (EC)2 conference, Edinburgh 2015 (received first prize excellence award for poster).

*Automated valuation modelling: A specification exercise* (with M. Wersing and A. Werwatz): Henley Business School, University of Reading 2013; AREUEA International Conference, Jerusalem 2013.

*Combining appraisals* (with M. Wersing): Humboldt-Universität zu Berlin, 2013.

*Building quality in neighbourhoods* (with M. Wersing): Statistische Woche, Leipzig, 2011; AREUEA Annual Conference, Chicago, 2012; Verein für Socialpolitik, Göttingen, 2012; IWH Halle, 2012; Workshop Interaction between Housing and the Economy, Berlin 2015.

*Rationality in the London office market* (with S. Devaney, O. Holtemöller and T. Kleinow): Skye Real Estate Conference, 2010; 65th European Meeting of the Econometric Society, Oslo, 2011.

*The accuracy of long-term real estate valuations* (with M. Staiber, M. Wersing and A. Werwatz): SFB649 Jour Fixe, 2008.

*Renting versus owning and the role of income risk: The case of Germany* (with M. Wersing and A. Werwatz): SFB649 Jour Fixe, 2006; Herriot-Watt University, 2007; DIW, Berlin, 2007; Conference on Real Estate Economics and Finance, Regensburg, 2007; ERES Conference, Krakow, 2008; AREUEA Annual Conference, San Francisco, 2009.

*A real options approach to development land valuation* (with S. Brenner and W. Härdle): RWTH Aachen, 2006.

*Does the diversification benefit of real estate stocks change over time?* (with L. Peng): ARES/AREUEA International Conference, Vancouver, 2006 (received ARES Best Paper Prize); ERES Conference, London, 2007.

*A real options approach to development land valuation* (with N. Hutchison): ERES Conference, Dublin, 2005.

*Investor rationality and house price bubbles* (with O. Holtemöller): RWTH Aachen, 2004; Freie Universität, Berlin, 2004; Universität Duisburg-Essen, 2004; ERES Conference, Dublin, 2005; Verein für Socialpolitik Jahrestagung, Bonn, 2005; Universität Hamburg, 2005; Humboldt-Universität zu Berlin, 2005; AREUEA Annual Conference, Boston, 2006.

*House prices and replacement cost: A micro-level analysis* (with A. Werwatz): ISI 54<sup>th</sup> Session, Berlin, 2003; AREUEA Annual Conference, San Diego, 2004; ERES Conference, Milan, 2004; Verein für Socialpolitik Jahrestagung, Bonn, 2005; WIAS, Berlin, 2005; DIW, Berlin, 2005; Ludwig-Maximilians-Universität München, 2007.

*Online prediction of Berlin single-family house prices* (with H. Sofyan, A. Werwatz and R. Witzel): ISI 54<sup>th</sup> Session, Berlin, 2003.

*Smoothing Berlin: Using location nonparametrically to predict house prices* (with A. Werwatz): The Art of Semiparametrics, Berlin, 2003.

*Property valuation techniques in Germany*: Hugo Steinhaus Center, Wroclaw, 2002; Statistische Woche, Konstanz, 2002; Advanced Methods in Finance, Breslau, 2002; AREUEA International Conference, Krakow 2003.

*Transactions that did not happen and their influence on prices* (with A. Kirman, W. Härdle and A. Werwatz): 1<sup>st</sup> World Congress of the Game Theory Society, Bilbao, 2000; Humboldt-Universität zu Berlin, 2002.

*A State Space Model for Berlin house prices: Estimation and economic interpretation* (with A. Werwatz): Humboldt-Universität zu Berlin, 2000; WIAS, Berlin, 2001; WDS Symposium Probability and Mathematical Statistics, Econometrics and Operational Research, Charles University, Prague, 2001; Statistische Woche, Dortmund, 2001; SFB373 Conference, Berlin, 2001 (received best paper award).

### **Conference and workshop organisation**

Workshop on Local Governance in Scotland and Malaysia, 2017. Organised jointly with Universiti Teknologi MARA (UiTM), Ministry of Urban Wellbeing, Housing and Local Government, and the Local Government Valuer Society.

### **Grants**

Investment Property Forum: £70,560. Research grant for 'An investigation of hurdle rates in the real estate investment process', 2016. Col, joint with University of Cambridge, PIs: Colin Lizeri and Norman E. Hutchison.

SGS DTC (Economic and Social Research Council, ESRC) and Aberdeen Solicitors Property Centre (ASPC): £63,489. Three-year Ph.D. studentship funding for 'Understanding neighbourhood effects: An analysis of Aberdeen Housing Sub-Markets', 2012. PI, Col: D. Roberts.

Guggenheim Real Estate: \$30,000. Research grant for 'An Econometric Model for German Real Estate Markets: A Feasibility Study', 2006. PI.

RICS Education Trust, £6,500. Research grant for 'A real options approach to development land valuation', 2004. Col: N. Hutchinson.

RICS Education Trust, £2,250. Research grant for 'Time varying correlation between real estate and stock returns and their implications on portfolio management', 2004. PI, Col: L. Peng.

Wirtschaftswissenschaftliche Gesellschaft an der Humboldt-Universität zu Berlin e.V., 1,200DM. Travel expenses to visit Yale, 2000.

Deutsche Forschungsgemeinschaft, fully-funded studentship for Graduate Programme Applied Microeconomics, Humboldt-Universität zu Berlin and Freie Universität Berlin, October 1998-October 2000.

### **Prizes**

Poster award for Semiparametric Estimation of Land Values, 26th European Conferences of the Econometrics Society, Spatial Economics & Econometrics Centre (SEEC), Heriot-Watt University, Edinburgh, 2015

Aareal Award of Excellence in Real Estate Research, 4,000EUR. Prize for research paper 'Renting versus owning and the role of income risk: The case of Germany', 2012.

ARES Foundation: \$1,000. Award for 'Time varying correlation between real estate and stock returns and the implication on portfolio management', 2006.



Deutsche Immobilien Akademie (DIA), 2,500EUR. Research prize for doctoral thesis 'Valuation of properties and economic models of real estate markets', 2003.

### **Undergraduate teaching**

#### University of Aberdeen

*Housing Economics*, fourth year, course development, coordination and contribution to teaching (2013 to present); third year, course development, coordination and contribution to teaching (2007)

*Real Estate Portfolio Investment*, fourth year, course development, coordination and teaching (2005 to 2007, 2010 to 2014, 2016 to present)

*International Property Market Analysis*, third year, contribution to course development and teaching (2005)

*Understanding Statistics*, second year, contribution to teaching (2005 to 2007)

#### Humboldt-Universität zu Berlin

*Non- and Semiparametric Methods*, fourth year, course coordination and teaching (2001, 2003, in German)

*Applied Quantitative Methods*, fourth year, contribution to teaching (2001, 2003, in German)

*Statistics II*, second year, contribution to teaching (2001, 2002, in German)

### **Postgraduate teaching**

#### University of Aberdeen

*Real Estate Finance*, course development, coordination and teaching (2006 to 2007, 2010 to present)

*Real Estate Market Modelling*, course development, coordination and contribution to teaching (2012 to 2014)

*Portfolio Analysis and Management*, contribution to course development and teaching (2010 to present)

*Real Estate Research*, contribution to teaching (2003, 2012 to 2019)

*Property Investment*, course development, coordination and teaching (2004 to 2007)

#### Other

*Automated Valuation Models*, guest lecture for MSc Real Estate students, Department of Economic Geography, University of Groningen (February 2020)

### **Advisor of Studies**

MA Non-Honours students (2007 to 2008), MA Honours students (2013 to 2014)

### **Supervision of dissertations and case studies**

#### Undergraduate dissertations

Business School: Economics, Finance, and Real Estate (2005 to present). Dissertations of Ben Herson (2013) and Natasha Ross (2014) both won the RICS Scotland Commercial Professional Group Board Student Award

#### Fourth-year project

School of Natural and Computing Sciences: Computing Science. Filip Socko (2016): Multi-agent modelling of real estate markets (with Nir Oren)

#### Postgraduate dissertations

Business School: Real Estate and Finance (2004 to present). The following dissertations won the Investment Property Forum Educational Trust (IPFET) prize for the best MSc dissertation on real estate investment and finance: Olawumi Oni (2010), Britta Schlingmeier (2011), Andrew Marshall (2012), Markus Thamm (2016)

School of Natural and Computing Sciences: Financial Mathematics. Nikolay Miller (2017), Adam Garton (2018), Frank Mensah and Xinyi Wang (2019)

School of Medicine, Medical Science and Nutrition: Health Economics. Mélanie Antunes (2018)

#### Case studies

Business School: Real Estate (2004 to present)

#### **PhD student supervision**

Ogilvie, Pauline, Industrial organisation of GP practices, since February 2021 (with Verity Watson and Peter Murchie from the School of Medicine)

Qiu, Yang, The relationship of the private rental sector and the labour market in the UK, since September 2019 (with Martin Wersing)

Zhang, Thomas (Aberdeen Curtin Alliance studentship), The analysis of micro property data, since 2018 (with Felix Chan and Greg Costello, both Curtin University, Australia)

Mahamood, Medeena, Provision and financing of social housing, since 2016 (with Bryan MacGregor)

Shari, Wahidah, IPOs in Malaysia, 2015-2018 (with Bryan Macgregor)

Pichnor, Lech, Understanding neighbourhood effects: An analysis of Aberdeen housing sub-markets, 2013-2017 (with Deb Roberts)

Zhao, Yuan, Real estate mutual funds, 2010-2015 (with Bryan MacGregor)

Owusu-Ansah, Anthony, Measuring and understanding the house price dynamics of the Aberdeen housing market, 2009-2012 (with Deb Roberts)

Mohd, Lizam, Price discovery and co-integration: A case study of the Malaysia property market, 2006-2011 (with Norman Hutchison)

Campbell, Ross, Human capital, incentives and the earnings function, 2005-2008 (with Tim Barmby)

#### **Examiner of external MSc dissertations and of PhD theses**

#### External MSc examiner

Jakob Pohlisch, Combining house price appraisals for lending value forecasts using quantile regression, Masterstudiengang Statistik, Humboldt-Universität zu Berlin, 2015

#### Internal PhD examiner

Alirat Agboola, The commercial real estate investment market in Lagos, Nigeria: An institutional economics analysis, University of Aberdeen, 2015

David Wyman, A million dollar: A spatial hedonic model of the reserve at Lake Keowee, South Carolina, University of Aberdeen, 2011

#### External PhD examiner

Alan Gardner, Using transaction yields to build a database that produces effective risk and return measures for the UK office market. Heriot Watt University Edinburgh, 2020

Frank Ametefe, Portfolio structure, real estate investment and the performance of defined contribution pension funds. Henley Business School, University of Reading, 2018

#### **Programme examiner**

External examiner for UG Real Estate programmes at the University of Reading (2021 to present)

#### **Administration**

Research Director Real Estate (2012 to present)

Aberdeen representative in the ESRC-funded Scottish Graduate School of Social Science, Real Estate and Urban Planning pathway (2011 to 2018)

Director of UG Real Estate programme (2012 to 2018)

Examination officer of UG Real Estate programme (2009 to 2012)

Director of MSc Real Estate Finance programme (2006 to 2012)

Deputy Director and Examinations Officer of the Business School Graduate Programmes (2006)

#### Committee membership

Business School Research Committee (2003 to 2008, 2018 to present)

Business School Postgraduate Research Committee (2007 to present)

Business School Teaching and Learning Committee (2012 to 2018)

Business School Academic Integrity Committee (2012 to 2018)

College Business Continuity Planning Committee (2007 to 2008)

Business School Communications and IT Committee (2004 to 2009)

#### Professional training courses

Understanding Unconscious Bias 2022

Research Integrity 2022

REF Equality and Diversity 2020  
Diversity in the Workplace 2018  
Diversity in Teaching and Learning 2017  
Information Security Awareness 2017  
Recruitment and Selection 2013

## **Other Activities**

### Consultancy

Aberdeen Solicitors Property Centre: Statistical modelling of house prices, 2019 (with M. Wersing)

Supporting analysis for expert witness report on residential valuation in the Prime Central London market, 2015 (with B. MacGregor and Y. Zhao)

Surveyor Commission for Real Estate in Berlin and CASE, Humboldt-Universität zu Berlin, MD\*Immo online price predictions for single-family houses, since 2001 (with J. Kolbe, M. Wersing, A. Werwatz, and R. Witzel), [www.gutachterausschuss-berlin.de](http://www.gutachterausschuss-berlin.de)

Bankgesellschaft Berlin and CASE, Humboldt-Universität zu Berlin, 2002 (with T. Kleinow and A. Werwatz)

Case Shiller Weiss Inc., Boston, 2000 (with S. Stephan)

### Media coverage

*Print:* MD\*Immo, online prediction of Berlin house prices: Immobilienpreise von der Uni, Sciencz Kontrovers, Heft 1 11/2002; Keine Preis-Trends mehr für Berliner Eigenheime, Berliner Morgenpost, 24.02.2007; Richard Haimann: Internetrechner taxiert Hauspreise, Financial Times Deutschland 24.07.2008; Opinion on German and British housing markets: Lars Klaassen: Wachstum ohne Blase, Berliner Zeitung 24.07.2010; frequent coverage of Aberdeen Housing Market Report in local newspapers (Press & Journal, Evening Express); Oil tip-off as safe as houses. Economics: Academic reveals link between crude and property prices, Press & Journal, Saturday, May 30, 2015, p.30.

*Calls:* Adam Davidson (New Yorker) on Aberdeen Housing Market (Friday, September 12, 2018).

*Radio:* Interview on Aberdeen Housing Market Report, Radio Northsound, 1.08.2012.

*Television:* Background information for feature about the effects of the oil price downturn on the Aberdeen housing market, STV, 21.07.2015.