

Impact case study (REF3)

Institution: Ulster University		
Unit of Assessment: Architecture, Built Environment and Planning (13)		
Title of case study: Better Property Value for Better Public Policy: PROPTAX		
Period when the underpinning research was undertaken: January 2000 to December 2020		
Details of staff conducting the underpinning research from the submitting unit:		
Name(s):	Role(s) (e.g. job title):	Period(s) employed by submitting HEI:
Dr Peadar Davis	Senior Lecturer of Property Appraisal	2000 – present
Dr Jasmine Lim	Senior Lecturer in Real Estate	2000 – present
Dr Michael McCord	Reader of Property Market Research	2010 – present
Mr Sean MacIntyre	Senior Lecturer in Environmental Health	2008 – present
Professor Martin Haran	Professor of Real Estate and Urban Studies	2006 – present
Professor WJ McCluskey	Reader in Real Estate and Valuation	1985 – 2014
Period when the claimed impact occurred: August 2013 to December 2020		
Is this case study continued from a case study submitted in 2014? N		
<p>1. Summary of the impact</p> <p>The impact case study revolves around a body of work which has had a significant impact on public and private sector policy and practice in the property valuation and taxation sphere. From this, the research has impacted society and the economy on five continents. The impact centres on providing innovative, fit for purpose approaches to the valuation of real estate assets to support fair and equitable public finance. Specifically, the research has resulted in the following impacts:</p> <p>I1: Informing taxation policy in Northern Ireland (NI) supporting a fit for purpose Rating system. I2: Informing taxation policy in Scotland supporting Council Tax Reform. I3: Informing taxation policy and Government valuation processes in Uganda. I4: Driving the internationalisation and research agendas of a major professional body in property taxation, the International Association of Assessing Officers (IAAO). I5: Helping rural communities in India to determine the value of the land they use and communicate this to Government, ultimately leading to improved legal, economic and ecological security. I6: Informing international policy and practice in property taxation and valuation in developed and developing world jurisdictions.</p>		
<p>2. Underpinning research</p> <p>The underpinning research is concerned with modelling the impact of policy options concerning property valuation, tax and local government finance. The research addressed Northern Ireland (NI), the wider UK context and also developing and transitional jurisdictions, due to its focus on simplified and efficient approaches which can be tailored to local circumstances. The underpinning research in property tax, a largely under-researched area, commenced in the late 1990s through peer review journal outputs by McCluskey. This research strongly advocated the case for reform of Council Tax in Great Britain (GB) and domestic rating in NI. The research demonstrated the need for a revaluation in GB and identified the inherent inequity in the NI rating system, advocating the case for reform and revaluation. This research informed the NI Assembly call for reform of the domestic rating system as part of the Programme for Government 2001 (R1).</p> <p>The early research was instrumental in McCluskey, joined by Davis and Lim, being commissioned to undertake research for the Department of Finance and Personnel Northern Ireland (DFPNI) to evaluate options and recommend the optimal reform policy. The research analysed large data sets including property sales, deprivation indices and other census derived variables to model a variety of policy options, in order to allow analysis of the incidence of the tax against benchmarks for local taxation, such as fairness, equity and efficiency. This culminated in a comprehensive spatial analysis of the likely impact of major property tax policy options against a range of policy criteria, notably</p>		

Targeting Social Need. The research was heavily utilised in policy formulation as evidenced by extensive referencing in the policy document 'A fairer share' (2004). The University's underpinning research reports were subjected to full expert review and public consultation and validation by the Northern Ireland Statistical Research Agency (NISRA). DFPNI used the research as the basis for pre-implementation analysis which corroborated the research findings, giving the Department confidence for roll out of property tax reform and revaluation. The innovative examination of simplified valuation approaches, notably the use of banding and its application to jurisdictions where other valuation approaches would be difficult, is a significant element which underpins the impact of the research in the developing world. The research findings were published in prestigious peer review journals (R2-R4).

With McCord, McIntyre and Haran, the research expanded into spatial econometric research which has identified the potential of such approaches to better understand the locational effects on value and, as a consequence, on the equity, uniformity and fairness of taxation systems. This research has been recognised by IAAO with a prestigious research award and has been published in peer review journals. This research underpins both the adoption of advanced methods in the developed world for accuracy and efficiency, but also activity in the developing world where there is much to gain from 'leapfrogging' to cutting edge technical approaches. This has been particularly evidenced by exploratory research in Malawi presented at the World Bank Conference on Land and Poverty in 2017 to key policy makers, advisors and government officials from the developing world (R5-R6).

Building on the combined research knowledge of simplified and advanced approaches, Davis undertook applied research in 2017 to assess land used by rural communities in India. This innovative research bridged natural capital accounting and valuation. In partnership with Indufor NA and Foundation for Ecological Security (FES) and funded by the Omidyar Network, the research interacted with rural communities to gain a deeper understanding of their use of unregistered lands not in their legal ownership. Key insights included identifying that such land is crucial to their social and economic success, and that the lack of tenure security commonly experienced adversely affects the management of the land leading to over-exploitation and environmental degradation. The research outputs included a robust valuation methodology, a free mobile assessment app and an explanatory manual that communities can use to value these assets and advocate for recognition of their interests. The research was reviewed by and presented at a leading think tank in Washington DC and reported in the Land Lines Publication of the Royal Institution of Chartered Surveyors.

A unifying dimension of property tax research at Ulster is the focus on pragmatic outcomes which are deliverable and sustainable given the realities of the jurisdictional setting (R3, R5).

3. References to the research Outputs can be provided by Ulster University on request.

The following outputs have been subject to blind peer review by international editorial boards.

- R1:** Plimmer, F, McCluskey, WJ and Connellan, O (2002) Valuation banding - an international property tax solution? *Journal of Property Investment & Finance*, 20 (1), pp. 68-83. [10.1108/14635780210416273](https://doi.org/10.1108/14635780210416273).
- R2:** McCluskey, WJ, Lim, LC and Davis, PT (2007) Domestic rate reform in Northern Ireland: a critical review of policy options. *Environment and Planning C: Government and Policy*, 25 (1), pp. 131-149. [10.1068/c0563](https://doi.org/10.1068/c0563).
- R3:** Davis, P, McCluskey, WJ, Grissom, TV and McCord, M (2012) An empirical analysis of simplified valuation approaches for residential property tax purposes. *Property Management*, 30 (3), pp. 232-254. [10.1108/02637471211233774](https://doi.org/10.1108/02637471211233774).
- R4:** McCluskey, WJ, McCord, M, Davis, PT, Haran, M and McIlhatton, D (2013) Prediction accuracy in mass appraisal: a comparison of modern approaches. *Journal of Property Research*, 30 (4), pp. 239-265. [10.1080/09599916.2013.781204](https://doi.org/10.1080/09599916.2013.781204).
- R5:** Bidanset, P, McCluskey WJ, Davis, P and McCord, M (2017) Improving Land Valuation Models in Sparse Markets: A Comparison of Spatial Interpolation Techniques in Mass Appraisal. Annual World Bank Conference on Land & Poverty. World Bank Washington DC 20-25 March 2017.
- R6:** Bidanset, P, McCord, M, Lombard, JA, Davis, P and McCluskey, WJ (2018) Accounting for Locational, Temporal, and Physical Similarity of Residential Sales in Mass Appraisal Modelling:

Introducing the Development and Application of Geographically, Temporally, and Characteristically Weighted Regression (GTCWR). *Journal of Property Tax Assessment and Appraisal*, 14 (2), pp. 5-13.

4. Details of the impact

The impact case study revolves around a body of work, including both commissioned research and more 'blue sky' research, which has had a significant impact on public and private sector policy and practice and from this has impacted society and the economy at large in NI and further afield. The key role has been to provide an evidence base and guidance in developing and maintaining modern, fit for purpose, fair, equitable and efficient property-based taxation systems. Techniques developed have been used to inform wider debates about the effective appraisal of land in developing jurisdictions. The impact of the underpinning research is considerable.

The research has influenced the policy community in the UK, USA, Uganda and India, directed the policy agenda of a major professional body in the field (IAAO), improved the operational efficiency of government departments (Assessing offices in the USA, Office of the Chief Government Valuer, Government of Uganda) and enabled an Indian non-profit organisation (FES) to help rural communities secure their future. Policy informed by the research has had a significant impact on the efficiency, fairness and equity of the tax base of at least two jurisdictions, in so doing materially impacting on the public finances of government bodies (local and regional government in NI, local government in Scotland) and the finances of every household in those jurisdictions via fairer and more equitable taxation. This has led to several specific impacts:

I1: The research was fundamental to the delivery of a modern and fairer domestic property tax system which has continuing economic impact. This benefits every NI household, for each financial year in the REF2021 period, via a more equitable and fairer property tax – the fairer redistribution of approximately GBP400,000,000 in annual revenue. The research has been significant in a regional context and has validated a policy direction decision which moved away from that adopted in the rest of the UK (**C1, C2**). It is notable that in each of the other UK jurisdictions, modernisation of the domestic property tax continues to be a matter of considerable concern and political debate (**C1**). Aspects of the research informed policy to introduce vacant rating of domestic property (active throughout the REF2021 census period), not to introduce a tax on brownfield development land and to alter the taxation of vacant commercial property (**C1**).

I2: The NI research led to advocacy at the Scottish Government Commission on Local Taxation in 2015 (**C2**). The research and impact contribution was cited in the work of the commission in 2015 & 2016 (**C2, C3**). The significance is noted in **C2**: “*As one of our closest neighbours, the evidence provided to us on Northern Ireland by Dr Davis was extremely valuable and helped to inform the Commission’s thinking on the best design for recurring property taxes*”. The Commission findings contributed to the Council Tax reform policy of the Scottish Government in 2016, which advocates amending the banding ratio in the upper bands to reduce regressivity, as recommended by our research (**C4**).

I3: The research has informed policy on an international basis, particularly in the context of transitional and developing world jurisdictions, and in so doing has helped to deliver sustainable, fair and equitable taxation systems and better-managed built environments. The underpinning research and demonstrated expertise directly led to work in Uganda on behalf of the Ministry of Housing, Lands and Urban Development (MHLUD) in 2015/16. This builds upon the work of Davis in 2005 in authoring the Ugandan Local Government (Rating) Regulations 2006. These Regulations are currently being used to operationalise the Ugandan Rating system, notably in Kampala Capital City Authority (KCCA), where a major revaluation was ongoing during the REF Impact period.

The research has directly informed and played an enabling role in harnessing essential municipal revenue. The research insights into country specific practical solutions, along with the adoption of modern technological modernisation “*informed and guided*” (**C5**) the design of an online Valuation Module for installation in the recently developed Land Information System. This “*was invaluable in informing Departmental policy and practice*” (**C5**) and will be the basis for all future work operations of the Chief Government Valuer’s Office.

This work is directly related to Ulster expertise in valuation and tax policy for developing jurisdictions outlined in **Section 2**. This application in Uganda demonstrates the international *reach* of the research, and its ability to *reach* into the operationalization of policy to inform the day-to-day work of government departments. From 2017, all government valuations, for Stamp Duty, Compulsory Purchase Compensation, Land Charges, Land Reform and Government Estate Asset Management will be undertaken by approaches informed by our research. All Property Rating valuation (amounting to the valuation of most urban and all commercial property, the major source of finance for Ugandan Local Government) is undertaken in accordance with rating regulations that the team authored and which were informed by the underpinning research. Beneficiaries include the professional valuer community in Uganda, individuals and firms involved in transactions and more broadly all the citizens of Uganda via the existence of more accurate and robust public services and improved municipal finance capacity (**C5**).

I4: The research has been instrumental in helping the IAAO fulfil its aim to truly be an 'International' organisation, and to further its aim of being a research informed organisation. This is a significant impact on a professional organisation with a key role in standard setting in property tax assessment, with over 8,000 members in over 30 countries. To date the research has been accessed by a number of Assessment Authorities in the USA and is being used (in 2020) to inform assessment reform by the Assessor's Office of Mountrail County, North Dakota, Bernalillo County, New Mexico (including Albuquerque) and San Joaquin County, California, improving the annual assessment and thus fairness and equity of USD130,300,000,000(12-2020) of assets producing USD1,170,000,000 (12-2020) per annum income stream. Beneficiaries include the professional staff of the municipalities who have gained professional development and improved access to powerful modern approaches, and their taxpayers who benefit from more accurate, more efficient and fairer methods of raising public finance (**C7**).

I5: Our research is helping rural communities in India to determine the value of the land they use and communicate this to Government, ultimately leading to improved legal, economic and ecological security of the affected communities. Our research findings have provided tools and guidance to rural Indian communities, empowering them to take control of their economic futures. '*Knowledge of the true value and potential of one's land can encourage productive investments, improve management practices and strengthen rural property rights*' (**C8**). The research has also facilitated a key supporting organisation, FES, in their work to stabilise rural resource consumption to facilitate sustainable use of land resources.

The research specifically transformed the ability of six rural villages in Rajasthan to understand and assess the value of their natural and social capital, to demonstrate this to government authorities and defend it against challenges and threats. This has helped to provide food and environmental security to hundreds of India's rural poor, while facilitating similar outcomes for millions more by providing proven tools and approaches that have become part of the toolset of FES across India (**C8**).

I6: The combination of simplified and modern spatial approaches has gained significant policy traction with major organisations, including Global Land Tool Network (GLTN) (**C6**), the Millennium Challenge Corporation, who are using the Malawi Research in their support of municipal finance support for Malawi, and ESRI (a world leading spatial analysis company), who have used the research to support to a number of developing countries in Latin America, the Caribbean and Africa, including Rwanda, Argentina and Turks and Caicos (**C7**, **C9**). The research into mass appraisal approaches has influenced and been cited by PBL Netherlands Environmental Assessment Agency (the Netherlands national institute for strategic policy analysis in the fields of the environment, nature and spatial planning), in its policy document Fiscal Instruments for Sustainable Development: The Case of Land Taxes, demonstrating the *reach* and *significance* of the work (**C10**).

In conclusion, the underpinning research has had a strong applied context within the policy areas of property valuation, taxation and local government finance, which has impacted upon society and economy on five continents and specifically in the UK, USA, Uganda, India, the Netherlands, South America, the Caribbean and Sub-Saharan Africa in the REF2021 census period.

5. Sources to corroborate the impact

C1: Testimonial from Department of Finance Northern Ireland.

C2: Testimonial from The Commission on Local Tax Reform, Scotland.

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- C3:** Literature Review informing the Commission on Local Tax Reform, Scotland.
- C4:** Policy analysis document demonstrating link between Local Tax Commission work and Scottish Council Tax Reform.
- C5:** Testimonial from the Ministry of Lands, Housing and Urban Development – Uganda.
- C6:** GLTN Valuation of Unregistered Land Report citing the Banding Research.
- C7:** Testimonial from the International Association of Assessing Officers.
- C8:** Evidence for Impact in India: RICS Land Journal Article documenting the work.
- C9:** Testimonial from ESRI.
- C10:** Fiscal Instrument for Sustainable Development: The Case of Land Taxes Report.