

Impact case study (REF3b)

Institution: University of Exeter
Unit of Assessment: Economics and Econometrics
Title of case study: Fiscal Inefficiencies in Federal Economies
<p>1. Summary of the impact (indicative maximum 100 words)</p> <p>Research carried out at the University of Exeter Business School (UoEBS) into the design of fiscally decentralized institutions has been instrumental in bringing ‘vertical fiscal externalities’ (an inherent feature of multi-level governments), and the resulting inefficiencies, to the attention of international organizations including the International Monetary Fund (IMF), the World Bank, the Organisation for Economic Co-operation and Development (OECD) and governments worldwide. This work has informed policy decisions and provided awareness of the intrinsic issues and interdependencies between tax decisions at different levels of government through the production of significant theoretical, empirical, and policy literature, and has directly influenced taxation policy directly through changes in fiscal legislation in Germany.</p>
<p>2. Underpinning research (indicative maximum 500 words)</p> <p>Federalism is a system of government that distributes power between central (‘federal’) and lower-level (‘state’) governments. This structure can give rise to decentralised policy decisions which deliver a socially sub-optimal result; particularly where federal and state governments share the same tax base. Even where distinct federal levels have formally different tax bases e.g., income and sales taxes, these may overlap in real terms. Such shared tax bases mean that tax decisions at each level of government elicit responses by the private sector that affect the shared tax base, thereby giving rise to ‘vertical’ externalities.</p> <p>These issues have been the focus of research undertaken by Professor Christos Kotsogiannis, Professor of Economics at UoEBS. Over a ten-year period starting in 2001, when he joined the UoEBS as a lecturer, he has collaborated with leading economists in and outside academia, including the Deputy Director of the Fiscal Affairs Department at the IMF (since 2001); Kai Konrad, Chairman of the Council of Scientific Advisors to the Ministry of Finance (Germany, since 2004); and Professors Sebastian Kessing, Siegen University (since 2004) and Robert Schwager, Goettingen University (since 2002).</p> <p>Through theoretical investigation, modelling and empirical study Professor Kotsogiannis has examined the design of fiscally decentralized institutions, which exist commonly in countries where fiscal responsibilities are allocated to different levels of government. His analysis of the role of decentralized governance suggests that intergovernmental fiscal relations need to appropriately respond to changes in the economic environment. Early findings were presented in a series of academic papers published in refereed international journals in 2002 (i), 2003 (ii), 2004 (iii), 2007 (iv), 2008 (v) and 2009 (vi).</p> <p>Kotsogiannis’ work identifies ‘vertical’ externalities as a source of inefficiency; extending the relevant existing literature that has instead focused on horizontal externalities arising from mobility of the tax base between lower-level governments. His findings elucidate the inter-relationship and balance between horizontal and vertical externalities in archetypal federal structures, and conclude that vertical externalities distort levels of taxation in opposite directions. Horizontal externalities tend to leave states’ taxes too low, as each lower-level government neglects the harm it does to others by cutting its tax rate in order to attract a mobile tax base; whereas vertical externalities are shown to leave lower-level taxes too high, as lower-level governments unduly discount the pressure on federal spending they create by raising their own tax rate.</p> <p>With horizontal and vertical externalities thus pointing in opposite directions, the research further identifies circumstances in which one dominates the other, which can be critical for tax coordination and important from a policy design perspective. Kotsogiannis has showed, for</p>

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instance, that vertical fiscal inefficiencies impede federally organized countries in successfully attracting foreign direct investment due to their limited ability to commit to a low overall tax burden.

3. References to the research (indicative maximum of six references)

The following **publications** describe the underpinning intellectual framework used in the impact case study.

- i. Keen, M. and Kotsogiannis, C. (2002). Does Federalism lead to excessively high taxes? *The American Economic Review*, 92(1), pp. 363-370.
- ii. Keen, M. and Kotsogiannis, C. (2003). Leviathan and Capital Tax Competition in Federations. *Journal Of Public Economic Theory*, 5(2), pp. 177-199.
- iii. Keen, M. and Kotsogiannis, C. (2004). Tax competition in federations and the welfare consequences of decentralization. *Journal Of Urban Economics*, 56(3), pp. 397-407.
- iv. Karkalakos, S. and Kotsogiannis, C. (2007). A spatial analysis of provincial corporate income tax responses: evidence from Canada. *The Canadian Journal Of Economics*, 40(3), pp. 782-811.
- v. Kotsogiannis, C. and Schwager, R. (2008). Accountability and fiscal equalization. *Journal of Public Economics*, 92(12), pp. 2336-2349.
- vi. Kessing, S., Konrad, K. and Kotsogiannis, C. (2009). Federalism, weak institutions and the competition for foreign direct investment. *International Tax And Public Finance*, 16(1), pp. 105-123.

Evidence of the quality of the research: All of the publications have been produced in peer reviewed journals.

4. Details of the impact (indicative maximum 750 words)

Prof Kotsogiannis' research has had clear practical impacts due to its direct relevance to the policy debate about fiscal inefficiencies. His findings have informed the debate on this issue both at key international institutions and in countries directly affected through their federal structure, including Germany, Italy, Switzerland, France, Australia, Canada, and the US. Decentralization ('federalism') and reforms of intergovernmental fiscal relations have been keenly debated in these highly decentralized countries, in some cases resulting in new legislation. These debates, and the relative merits of the reforms have informed further research using Kotsogiannis' research, which has influenced a similar discussion beginning in the UK, where Scottish independence could have wide-ranging fiscal implications.

In the German state of Mecklenburg-West Pomerania, the second part of a report on revenue sharing and fiscal equalization commissioned by the interior ministry was published in 2008 (1). The report, which cited Kotsogiannis' research on "accountability and fiscal equalization", was intensively discussed among members of the administration and state government, and presented to a committee of the state parliament. The initial report, published earlier in 2006, also cited Kotsogiannis' research, and with reference to the arguments put forward in both these documents the state government proposed a reform of the law of fiscal equalization of the state Mecklenburg West Pomerania (*Finanzausgleichsgesetz Mecklenburg-Vorpommern, FAG M-V*) in 2009. The reports were cited extensively in the reasons given for the legislative proposal, and the reform was duly enacted later in 2009.

Similarly, an Italian report published in 2008 (2), for the Prime Minister (*Presidenza del Consiglio dei Ministri*), made recommendations for federal reforms citing Kotsogiannis' work on the issues of tax base commonality in its supporting arguments. In 2012 some proposals made by this report were enacted by the government of Mario Monti as part of the spending review. These included the introduction of a new 'città metropolitana' (metropolitan municipality), to rationalise and contain

public administration costs.

In France, the French Agency for Development cited Kotsogiannis' research in a study on decentralization (2011) (3), highlighting his name as one of the researchers who have put the issue of overlapping taxation back on the policy agenda.

In addition to Kotsogiannis' research informing earlier key IMF Country Papers for Switzerland, he has presented his findings to the IMF (twice in April and May 2008), and the World Bank (twice in March and June 2011), with audiences in both cases being made up of staff members of these institutions responsible for providing advice, and funds, to countries worldwide. Kotsogiannis' findings also informed the OECD's declared goal of helping governments re-establish healthy public finances through a 2009 report (4) entitled 'Taxes and Grants: on the revenue mix of sub-central governments', which again cites Kotsogiannis' research.

Professor Bev Dahlby (University of Alberta), an influential economist in Canada, who holds advisory roles in both the Canadian National Statistics Council and the Fraser Institute, cited Kotsogiannis' research in a 2008 article on British Columbia's incentive-based tax cuts (5). The article was written for the Fraser Institute, an independent public policy research organization which has been ranked as Canada's top think tank, investigates the economic growth, investment, and revenue effects of personal and corporate income taxation, which provides policy advice to the Canadian government. Dahlby has also written a book, *The Marginal Cost of Public Funds: Theory and Applications*, published in 2008, which dedicates an entire chapter to Kotsogiannis' research.

In 2010, Dahlby gave a presentation on the Canadian experience of the impact of tax competition between sub-central governments to the OECD in Bern, Switzerland. In it he cited Kotsogiannis' research evidence from Canada in front of an audience made up of members of the OECD's fiscal federalism network (6).

In addition to the above, Kotsogiannis' work has been cited in numerous policy documents of international organizations, such as the IMF, the World Bank (7), (at which he acted as a consultant in 2011), the OECD, and the EU, as well as policy documents of countries which have undertaken public sector reforms, such as the aforementioned Germany and Italy. His work has also directly informed research at the IMF, as shown by an article published in 2008 (8) that explores the need for better understanding of the relationship between fiscal decentralization and efficiency and macroeconomic outcomes.

5. Sources to corroborate the impact (indicative maximum of 10 references)

1. Der Kommunale Finanzausgleich in Mecklenburg-Vorpommern: Langfristige Entwicklung und Reformperspektiven. Teil II: Der Horizontale Finanzausgleich. Gutachten im Auftrag des Innenministeriums des Landes Mecklenburg-Vorpommern. 09.07.2008. *Report on revenue sharing and fiscal equalization in the German state of Mecklenburg-West Pomerania, part II, 9th July 2008.*
2. Bordignon, M., Petretto, A. (2008). Elementi per il controllo e la razionalizzazione della spesa pubblica in Italia, in Formez (eds.) "Rapporto con raccomandazioni su Innovazione amministrativa e crescita", vol. II.1., Ricerca Giannini II fase, per la Presidenza del Consiglio dei Ministri, Ministero delle riforme e le innovazioni nella Pubblica Amministrazione, Dipartimento della Funzione Pubblica, Italia.
Available at:
[http://www.federalismi.it/AppOpenFilePDF.cfm?artid=20717&dpath=document&dfile=28082012171522.pdf&content=testo+del+d.l.+n.+95/2012+coordinato+con+le+modifiche+effettuate+dalla+elgge+di+conversione+n.+135/2012+\(spending+review\)+--stato+-+documentazione](http://www.federalismi.it/AppOpenFilePDF.cfm?artid=20717&dpath=document&dfile=28082012171522.pdf&content=testo+del+d.l.+n.+95/2012+coordinato+con+le+modifiche+effettuate+dalla+elgge+di+conversione+n.+135/2012+(spending+review)+--stato+-+documentazione). *Report proposing recommendations for the Italian Prime Minister (Presidenza del Consiglio dei Ministri), enacted by the government of Mario Monti in 2012.*
3. French Agency for Development. (2011). 'Decentralization: A few principles from the theory

- of fiscal federalism,' Notes and Documents No 42 (B. Dafflon and T. Madies). *Report informing factors influencing organisation of state action, citing Kotsogiannis' research.* <http://www.afd.fr/webdav/site/afd/shared/PUBLICATIONS/RECHERCHE/Archives/Notes-et-documents/42-notes-documents-VA.pdf>
4. Blöchlinger, H, and Petzold, O, Taxes and Grants: on the Revenue Mix of Sub-Central Governments. *OECD Report referencing Kotsogiannis' research.* <http://www.oecd.org/ctp/federalism/42783028.pdf>
 5. Dahlby, B. and Ferede, E. (2008). *Assessing British Columbia's Incentive-Based Tax Cuts.* Vancouver: The Fraser Institute. <http://www.fraserinstitute.org/WorkArea/DownloadAsset.aspx?id=2205>
 6. Dahlby, B., *The Impact of Tax Competition Between Sub-Central Governments: the Canadian Experience.* OECD presentation.
 7. Madies, T. and Dethier, J. (2010). *Fiscal competition in developing countries: a survey of the theoretical and empirical literature* [Online]. Policy Research Working Paper no. WPS 5311. Washington: World Bank. Available at: <http://go.worldbank.org/9KTRIIDPL0>.
 8. Lusinyan, L. (2008). *Fiscal Decentralization.* IMF Research Bulletin, 9(4) [online] Available at: <http://www.imf.org/external/pubs/ft/irb/2008/04/index.pdf>
 9. **Deputy Director, Fiscal Affairs Department, International Monetary Fund,** Washington DC, US. *Contact able to corroborate Kotsogiannis' work with the IMF and the impact of his research on their publications.*
 10. **Senior Economist, Environment and Energy Department, World Bank,** Washington, DC, US. *Contact able to corroborate Kotsogiannis' work with the World Bank, his consultancy role, and the impact of his research on their publications.*