

# Tidiane Ly

Research fields : Publics economics, Urban economics, Environmental economics, Public policy evaluation

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## POSITION

From Sept. 2019 Postdoctoral researcher and Lecturer, Institute of Economics (IdEP)  
**Università della Svizzera italiana (USI), Lugano, Switzerland**

2019 Qualification: *Maître de Conference (MCF)*/ Assistant Professor

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## EDUCATION

2018 PhD in economics at **University Lyon II - GATE, CNRS, France**

Thesis: *Tax competition within metropolitan areas*

Supervisors : Sonia Paty & Florence Goffette-Nagot

Jury: K. Schmidheiny (Professor, University of Basel, Switzerland)  
P.-P. Combes (Research Director, CNRS - University of Lyon, France)  
E. Lehmann (Professor, University Paris II Panthéon-Assas, France)  
E. Viladecans-Marsal (Professor, University of Barcelona, Spain)

2016 Research stay abroad, 6 months, **University of Laval, Canada**, CRREP

*Explo'ra Doc Grant*

Classes: Econometrics, Microeconometrics, Public policy evaluation

2014 Master II Research in Theoretical and Empirical economics

**Paris School of economics (PSE), University Paris I, ENS Cachan, France**

Dissertation, *with highest honors*

Supervisor: Stéphane Gauthier (Professor, Paris School of economics)

2013 Magistère d'économie, **University Paris I, Panthéon-Sorbonne, France**

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## AWARDS and GRANT

- First prize in **Graduate-Student-Author Paper competition**,  
*North American Regional Science Council, NARSC 2019*,  
for the paper "Taxes, commuting and spillovers in the metropolis"
- **PhD Thesis first prize** French Economic Association, AFSE 2019
- **Explo'ra Doc grant** for international mobility, 2015-2016

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## RESEARCH

### Job market paper:

- “The marginal value of public funds in a federation”  
D.R. Agrawal (Univ. Kentucky), W. H. Hoyt (Univ. Kentucky), T. Ly  
Presented at the 2022 **NBER Conference: Economic Impacts of Interjurisdictional Tax Competition**

The objective is to establish and provide a framework for quantifying the welfare effects of fiscal policies in an open economy, with an emphasis on state and local governments in a federalist system. To do this, we develop a model of fiscal policy with benefit-spillovers, firm mobility, and household mobility effects from changing taxes and expenditures among interacting local jurisdictions. We then derive how mobility and spillovers influence the marginal value of public funds (MVPF). Because a federal planner internalizes interjurisdictional externalities, the MVPF for a federal and local planner can diverge substantially, and we derive theoretical conditions for when the local MVPF will be the larger or the smaller. We provide guidance on the additional empirical components of the marginal value of public funds necessary to understand the welfare effects of policies in a federalist system. Finally, we illustrate the key differences of social and local MVPFs using empirical applications to decentralized wealth taxation, bidding-for-firm subsidy competition, and education spending.

### Published articles:

- “Local taxation and tax base mobility: Evidence from France”, 2020,  
T. Ly, S. Paty (Univ. Lyon II) **Regional Science and Urban Economics**

This paper investigates the impact of tax base mobility on local taxation. First, we develop a theoretical model in order to examine the connection between local business property taxation and tax base mobility within a metropolitan area. We find that, in the presence of a budget compensation, decreasing capital intensity in business property tax base, composed of capital and land, increases the business property tax rates and decreases the tax rates on residents. We test this result using a French reform which changed the composition of the main local business tax base in 2010. Difference-in-difference estimations show that in 2010, the reduction in tax base mobility indeed resulted in a 14% rise in business property tax rates and a reduction in housing tax rates of 1.3%, compared to pre-reform average levels.

- “Sub-metropolitan tax competition with mobile household and capital”, 2018,  
T. Ly, **International Tax and Public Finance**

This paper investigates the efficiency properties of tax competition between sub-metropolitan jurisdictions when capital, residents and workers are mobile, and both households and firms compete for local land markets. We analyze two decentralized equilibria: (1) With a local tax on residents and two separate local taxes on capital and land inputs, efficiency is achieved and the existence of a marginal fiscal cost due to residents' mobility is revealed; (2) Combination of the taxes on capital and land inputs into a single business property tax leads local authorities to charge inefficiently high taxation on capital. We show that capital mobility induces a reduction in the business land taxation and local public inputs are used to offset the distorting effects of the property tax, accounting for the distorting impact of workers' mobility.

### Working papers:

- “Housing prices, ownership incentives and rent control: Evidence from France”,  
S. Chareyron (Univ. Paris XII), T. Ly, Y. Trouvé-Sargison (CNAF),  
Revised and resubmitted to **Journal of Housing Economics**

Are ownership incentive policies inevitably accompanied with pernicious inflationary effects? To address this issue, we develop a theoretical model in which owners of new housing benefit from a homeownership subsidy or a rental investment incentive. We show that while both incentives increase the new housing prices, they reduce the second-hand housing prices and have ambiguous impacts on the average housing price. We empirically test these findings by exploiting a 2014 French reform in the metropolitan area of Lyon which intensified both

incentives. Difference-in-difference estimates confirm the theoretical predictions; the effect is different for new and second-hand housing markets: two years after the reform, the price of new housing has increased by 30% and the price of second-hand housing has decreased by 7%. Taking both markets together, the overall effect is non-significant.

- “Taxes, commuting and spillover in the metropolis”,  
**First prize NARSC Graduate-Student-Author Paper competition**

T. Ly,

This paper studies local governments’ public policies in a metropolitan area plagued by commuting-induced congestion, where both residents and workers consume local public goods. We develop a new spatial sub-metropolitan tax competition model which features a central city surrounded by suburban towns linked by mobile capital and mobile residents who commute to work. We show that Pareto-efficiency is achieved if towns can retain their workers using labor subsidies. Otherwise, traffic congestion in the city is inefficiently high and local governments respond by setting inefficient public policies: (i) the city over-taxes capital and under-taxes residents, which leads to too little capital and too many residents in the city; (ii) local public goods are under-provided in the city and over-provided in the towns.

- “Tax competition on the extensive and intensive margins”,  
D.R. Agrawal (Univ. Kentucky), T. Ly, R. Parchet (Univ. Lugano)

Tax administration is costly and may discourage some governments from utilizing certain taxes, thus becoming tax havens. This paper develops a tax competition model in which jurisdictions first decide whether or not to levy a tax rate and then decide what tax rate to set to compete for mobile shoppers. We address the following questions: (i) How is the equilibrium tax rate determined when taxing jurisdictions can decide to become tax havens? (ii) How do tax rate and number of tax havens differ when taxes are chosen competitively compared to when they are set by a social planner? We show that when the equilibrium number of tax havens is low [high], a positive fiscal externality dominates [is dominated by] a negative consumption externality, the equilibrium tax rate is lower [larger] and the number of tax havens is larger [lower] than in a social planner equilibrium. Using a dataset of US counties, the model is estimated structurally. We show that the tax rates are around 11% too low and the number of tax havens is up to 17% too high compared to the social optimum.

#### **Work in progress:**

- “Sorting, tax competition and the rise of local tax heavens”,  
T. Ly, R. Parchet (Univ. Lugano)

This paper develops an income tax competition model in which mobile households are heterogeneous in income. We address the following questions: (i) Which balancing forces provide competing local governments with incentives to host households with heterogeneous income in their jurisdictions; (ii) Does tax competition among local governments amplifies or dampens the income sorting effects of amenity chocs? We identify necessary conditions for the existence of a general equilibrium. Our simulations show that a positive amenity choc in a jurisdiction disproportionately attracts richer households. This spurs its local government to provide more public good and increase its tax rate, which further attracts richer households. Public good provision increases more than the tax rate.

- “Competition for greener regions: Environmental policy and agglomeration”,  
R. Gaté (Univ. Dauphine), S. Legras (INRAE), T. Ly

This paper studies the effects of environmental policy competition among regional governments on pollution emission levels. We build a theoretical model including two regions with different population size that implement an environmental policy fostering use of low-carbon transport mode. We show evidence of a key interplay between attractiveness, tax collection costs and aggregate pollution. A city benefiting from large region benefit from anti-pollution policy competition to reduce its pollution emissions. However, fiscal competition prevents the a too small region becoming greener.

- “Can private schools slow down the capitalization of public school quality into house values ? Evidence from Shanghai”,

T. Ly, T. Wang (Univ. Renim China), C. Zhang (Univ. Shanghai), Z. Zhao (Univ. Hong Kong)

This paper uses a geographic regression discontinuity design to estimate the effect of private schools on supply efficiency and equality of elementary education supply. The study finds that private schools improve the spatial supply efficiency of elementary education significantly and reduce education inequality. The results show that private schools can markedly slow down the capitalization of public school quality into house values by 2.4 percent. This study provides an important basis for evaluating the role of social capital in elementary education. It also provides a new clue to optimize spatial allocation of elementary education resources in order to curb an overheated housing prices in specific regions.

## TEACHING

2019-2022      University of Lugano (USI), Switzerland, 3 years – Course director  
23 hours/year      Graduate Program: Master of Science in Economics  
Public Finance: **Full development of the course**

2017-2019      University Lyon II, France, 2 years - Teaching fellow  
192 hours/year      Undergraduate Program: Economics and Business Administration  
Dynamic Macroeconomics  
Public Economics  
Microeconomics (Program: Licence Institutions et Society)  
Mathematics

2015-2017      University Lyon II, France, 2 years - Teaching fellow  
64 hours/year      Undergraduate Program: Economics and business administration  
Public Economics : **Full development of the exercise booklet**  
Mathematics

2012-2013      University Paris I Panthéon-Sorbonne, France - Tutoring - Undergraduate  
20 hours/year      Undergraduate Program: Applied Mathematics  
Mathematics  
Statistics

## CONFERENCES & PRESENTATIONS

### Conference and workshop

NBER Conference : Economic Impacts of Interjurisdictional Tax Competition, January 2022, online

Annual Congress of the International Institute of Public Finance, (IIPF) July 2021, online

20th Journées Louis-Andrée Gérard-Varet (LAGV), June 2021, Marseille, France

Swiss Society of Economics and Statistics (SSES) Annual Congress June 2021, online

Workshop on Local Public Finance and Regional Economic, 2020, Berne, Switzerland

Annual Meeting of the National Tax Association (NTA), 2019, Tampa, USA

Annual Meeting of the North American Science Council (NARSC) 2019, Pittsburgh, USA  
*Association Française de Science Économique (AFSE)*, 2019, Orléans, France  
Workshop on Economics of Taxation and Public Expenditures, 2019, Barcelona, Spain  
Workshop on Local Public Finance and Regional Economics, 2019, Lugano, Switzerland  
  
Public Economics at the Regional Level (PEARL), 2018, Zermatt, Switzerland  
European Public Choice Society conference, 2018, Rome, Italie  
  
Workshop on Public Policies, Cities and Regions, 2017, Lyon, France  
Workshop on Rhône Spatial Economics, 2017, Geneva, Switzerland  
  
Annual Meeting of the Urban Economics Association (UEA), 2016, Minneapolis, USA  
Public Economics at the Regional Level (PEARL), 2016, Santiago de Compostella, Spain  
*Association Française de Science Économique (AFSE)*, 2016, Nancy, France  
*Journées de Microéconomie Appliquée (JMA)*, 2016, Besançon, France  
Workshop on Political Economy and Local Public Finance, 2015, Lille, France

### Invited seminar

Secgo, *Economic Geography seminar*, Agro Sup, INRAE, april 2021, online  
Cesaer, INRAE, 2019, Dijon, France  
Università della Svizzera italiana, 2018, Lugano, Switzerland  
*Economics and Taxation seminar*, University Paris II Panthéon-Assas, 2017, Paris, France

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## REFERENCES

*Reference letters available from:*

**David R. Agrawal**

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## OTHERS

Languages	French (native), English (fluent), German (read)
Software	Mathematica, Matlab, Stata, R
Referee:	Economic Bulletin, International Tax and Public Finance, Public Finance Review, Regional Science and Urban Economics, Revue d'économie politique