

JUSTINE KNEBELMANN

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CURRENT POSITION Massachusetts Institute of Technology (MIT) & J-PAL 2021-2024
Postdoctoral Associate
Digital Identification and Finance Initiative in Africa

REFERENCES

Professor Tavneet Suri
MIT Sloan School of Management
77 Massachusetts Avenue, E62-522
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Professor Jonas Hjort
University College London
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Professor Denis Cogneau
Paris School of Economics
48 bd Jourdan, R5-05
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Professor Marc Gurgand
Paris School of Economics
48 bd Jourdan, R3-11
75014 Paris
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DOCTORAL STUDIES Paris School of Economics
Completed in 2021
DISSERTATION: “*Fiscal Capacity and State Building in Sub-Saharan Africa*”
JURY : Denis Cogneau, Antoine Bozio, Élise Huillery, Pascaline Dupas,
François Gérard

PRIOR EDUCATION Columbia University, Economics 2016-2017
Visiting Scholar
Paris School of Economics 2014-2015
Analysis and Policy in Economics (APE) Masters
École Normale Supérieure de Lyon, Economics 2011-2017
Full government scholarship following national competitive exam.

CITIZENSHIP French **GENDER** Female

LANGUAGES English (fluent), French (native), German (intermediate), Spanish (intermediate).

FIELDS Development Economics & Public Economics.

TEACHING EXPERIENCE	<p>Summer School “Development Methodologies” J-PAL & FID <i>Coordinator of the academic track</i> <i>ENSEA, Abidjan.</i> 2022</p> <p>Applied Econometrics 2017-2021 <i>Instructor & creation of all course content and tutorials</i> <i>Economics department, École Normale Supérieure, Paris</i></p>
RELEVANT POSITIONS	<p>Field Research Assistant, Uganda 2015-2016 <i>Uganda Revenue Authority</i> <i>Professors Miguel Almunia, François Gérard, Jonas Hjort</i></p> <p>Research Intern, OECD 2014</p>
PROFESSIONAL ACTIVITIES	<p>Referee: <i>Journal of the European Economic Association, Journal of Public Economics, European Economic Review, Review of Economics of the Household, Journal of African Economies, Oxford Economic Papers, International Tax and Public Finance</i></p> <p>Conferences and Presentations:</p> <p><i>NEUDC (Harvard Kennedy School), Oxdev (Oxford University), Women in Empirical Micro (University of Chicago), MIT Public Finance Lunch, EEA Annual Congress (Pompeu Fabra, Barcelona), WEFIDEV workshop (Northwestern University, Evanston), GWU and World Bank workshop on urban governance (Washington DC), Dauphine DIAL seminar (Paris), MIT Organizational Economics Lunch, MIT Development Lunch</i> 2023</p> <p><i>Zurich Public Finance in Developing Countries conference, Novafrica Economic Development Conference (Lisbon), IIPF Annual Congress (Linz), World Bank Tax Conference (Washington DC), Global Development Network conference (Clermont-Ferrand), Laboratory for the Economics of Africa’s Past (virtual), MIT Development Lunch</i> 2022</p> <p><i>ICTD-ATAF Webinar on Property valuation with researchers and practitioners (virtual), African Tax Research Network Annual Congress (virtual)</i> 2021</p> <p><i>National Tax Association (virtual), World Bank Tax Conference (virtual)</i> 2020</p> <p><i>PSE Annual Conference on Global Issues: Digital Transformations, African Economic History Network Annual Meeting (Barcelona), ODI Roundtable on Systems Development and PFM Reforms (London), Oxford Economic History PhD</i> 2019</p>

*Seminar (Oxford), International Centre for Tax and Development
Annual Congress (Kigali)*

*Africa Property Tax Initiative Annual Congress (Dakar),
International Growth Centre Tax Event (Lusaka), World Economic
History Congress (MIT), Economic Development and Institutions
Conference (Berkeley)* 2018

Policy Reports:

“Strengthening Personal Income Taxation in Senegal” with Pierre
Bachas, Léo Czajka, Aïssatou Diallo, Anaëlle Touré. 2023

World Bank Equitable Growth, Finance and Institutions Report
“Recent advances in property taxation in developing countries.
The promises of digitization and remaining challenges” 2021
ODI-IFS TaxDev Report

“Domestic Resource Mobilization in Somalia” with Gaël
Raballand. *World Bank Report 151540* 2020

“Taxing Property Owners in Dakar” *International Growth Centre
Policy Brief 50415* 2019

Other:

Consultant on local public finance and digitalization for TaxDev
(Institute of Fiscal Studies and Overseas Development
Institute) 2021

Member of the Resource Allocation Group of the International
Centre for Tax and Development *since 2019*

World Bank, Short Term Consultant on public revenue
mobilization 2019

Organizer of an Interdisciplinary Conference on African Cities
at the *École Normale Supérieure*, Paris 2018

Founder of SOMESA, association for educative support to
refugee girls in Uganda *since 2016*

**RESEARCH
GRANTS**

J-PAL DigiFi Initiative (5,350 USD) 2023
*Proposal development grant with the Senegalese Social
Protection Ministry
with Albertine Kabou and Anaïs Toungui*

J-PAL DigiFi Initiative (6,700 USD) 2022
*Proposal development grant with the Kanifing Municipal
Council, the Gambia
with Kodjo Aflagah and Victor Pouliquen*

Fund for Innovation in Development (349,000 EUR) 2022
*Assessing the impact of a new digital tool for property taxation
in Dakar, Senegal
with Denis Cogneau, Marc Gurgand, Victor Pouliquen,
Bassirou Sarr*

J-PAL DigiFi Initiative (153,000 USD) 2020

Bringing property owners into the tax net: fiscal capacity and local governance

with Denis Cogneau, Marc Gurgand, Victor Pouliquen, Bassirou Sarr

International Centre for Tax and Development (14,000 GBP) 2019

International Growth Centre (19,000 GBP) 2019

with Victor Pouliquen

J-PAL Governance Initiative Travel Grant (6,000 USD) 2019

Economic Development and Institutions (415,000 GBP) 2017

Measuring the effect of technological improvements and compliance nudges on property taxes: evidence from a field experiment in Senegal

with Denis Cogneau, Marc Gurgand, Victor Pouliquen, Bassirou Sarr

PUBLICATIONS **“Strategic or Confused Firms? Evidence from “Missing” Transactions in Uganda”, *Review of Economics and Statistics*, Forthcoming.**
(with Miguel Almunia, Jonas Hjort, Lin Tian)

RESEARCH PAPERS **“Discretion versus Algorithms: Bureaucrats and Tax Equity in Senegal” (Job Market Paper)**
(with Victor Pouliquen and Bassirou Sarr)

The implementation of government programs requires a list or register of individuals who are eligible for the program. Building these registers accurately is a challenge in contexts with low administrative capacity, and is often the responsibility of bureaucrats. We study the impacts of giving such bureaucrats more (or less) discretion in building these registers in the context of the creation of the first digitized property tax register in Senegal. We randomly assign neighborhoods to valuation methods with different degrees of bureaucrat discretion and compare the registered property values against a benchmark of market values provided by licensed real estate assessors. Bureaucrats in full discretion areas undervalue properties, and more so for higher-value properties, resulting in a regressive tax profile. The median tax rate is 3.8% in the lowest quintile and 1.7% in the top quintile, instead of the expected 4.4% and 8.6% rates based on the tax code. In contrast, a rule-based system where bureaucrats record property characteristics (not values) that an algorithm then uses to compute values, significantly reduces this tax gap. A pure rule with no bureaucrat inputs yields the highest accuracy and equity. We show this is due to bureaucrats' lack of knowledge about high-end properties and their fairness concerns, and not due to collusion between bureaucrats and property owners.

“Leveraging Trading Networks to improve Tax Compliance: Experimental Evidence from Uganda” (CEPR Working Paper)

(with Miguel Almunia, David Henning, Dorothy Nakyambadde, Lin Tian)

We leverage information on firms' trading networks from VAT return data to

evaluate the impact of a tax compliance intervention in Uganda through a randomized experiment. A random sample of seller-buyer pairs receive letters listing discrepancies across tax returns and requesting firms to file amendments. The amendment rate is 22 percentage points higher in the treatment group, compared to 1.8% in the control group. We find spillover effects within firm pairs and with other trading partners. Overall, there is a small increase in VAT liability for the amended returns. The intervention also leads to fewer discrepancies in subsequent tax declarations, although the effect is short lived.

“Taxation in Africa from Colonial Times to the Present” (PSE Working Paper)

(with Denis Cogneau, Yannick Dupraz, Sandrine Mesplé-Somps)

This paper sheds light on the fiscal trajectories of 18 former French colonies in Africa from colonial times to the present. Building upon own previous work about colonial public finance (Cogneau et al., 2021), we compile a novel dataset by combining previously available data with recently digitized data from historical archives, to produce continuous and comparable public revenue data series from 1900 to 2018. This allows us to study the evolution of the level and composition of fiscal revenues in the post-colonial decades, with a special focus on the critical juncture of independence.

**RESEARCH IN
PROGRESS**

“Can Digitization help foster Synergies between Urban Service Delivery and Local Revenue Mobilization?”

(with Kodjo Aflagah and Victor Pouliquen)

Project development phase in partnership with the Kanifing Municipal Council, the Gambia.

“Digital Payments and Social Protection in Senegal”

(with Albertine Kabou and Anaïs Toungui)

Project development phase in partnership with the National Direction for Social Protection and Solidarity in Senegal.

“Revenue and Incidence Effects of Investing in Property Tax Capacity in Dakar, Senegal”

(with Denis Cogneau, Marc Gurgand, Victor Pouliquen, Bassirou Sarr)
RCT in the field.

“Property Taxation and Engagement with Local, National and Traditional Authorities: Evidence from Dakar, Senegal”

(with Victor Pouliquen)

RCT in the field.

“Taxing High Income Earners in a Low-Income Country”

(with Pierre Bachas and Léo Czajka)

Project development phase in partnership with the National Tax Administration in Senegal.