THOMAS MONNIER

PhD Candidate · CREST, Ecole Polytechnique, IP Paris

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Placement Director: Xavier D'Haultfoeuille   xavier.dhaultfoeuille@ensae.fr
Graduate Coordinator: Julien Combe   julien.combe@polytechnique.edu

Research Fields

Development, Urban, and Labour Economics

Doctoral Studies

CREST, Ecole Polytechnique, IP Paris   *France*
PHD IN ECONOMICS   *2019 - 2025 (expected)*
- Advisor: Prof. Benoit Schmutz-Bloch

University College London, Dept. of Economics   *UK*
VISITING SCHOLAR   *Spring 2024*

Pre-Doctoral Studies

HEC Paris   *France*
MASTER IN MANAGEMENT (GRANDE ECOLE)   *2015 - 2020*
- Major: Quantitative Economics and Finance (joint with Ecole Polytechnique and ENSAE)

Lycée Louis-le-Grand | Université Paris 1 - Panthéon-Sorbonne   *France*
CLASSE PRÉPARATOIRE AUX GRANDES ECOLES (CPGE)   *2013-2015*
- Bachelor equivalence: Mathematics and Computer Science Applied to Humanities and Social Science
- Track: Economics and Business, Scientific (ECG-ECS)

References

Prof. Roland Rathelot, *ENSAE*, roland.rathelot@ensae.fr, http://rolandrathelot.com/

Prof. Pauline Rossi, *Ecole Polytechnique*, Dept. of Economics, pauline.rossi@ensae.fr,
https://sites.google.com/site/paulinerossimoulin/

Prof. Benoit Schmutz-Bloch (PhD advisor), *Ecole Polytechnique*, Dept. of Economics, benoit.schmutz@polytechnique.edu,
https://sites.google.com/site/benoitschmutz/

Dr. Harris Selod, *World Bank*, Development Research Group, hselod@worldbank.org, https://sites.google.com/site/hselod/

Teaching Experience

2022	**Graduate: Energy Economic Geography**, Teaching Assistant, Ecole Polytechnique	*France*
2022	**Undergraduate: Introduction to Economics**, Teaching Assistant, Ecole Polytechnique	*France*

Relevant Professional Experience

2022-2023	**World Bank**, Short-Term Consultant, Technical assistance to the City of Cape Town	*US*
2020	**Erasmus School of Economics**, Research Assistant to Prof. Laura Hering	*Netherlands*

Awards, Fellowships, & Grants

2024	**PhD Scholarship**, Institut Louis Bachelier, Just Transition Hub - Finance for Tomorrow
	Mobility Grant, GENES, EUR DATA EFM
2021	**PhD Scholarship**, Ecole Polytechnique, LabEx ECODEC - Investments for the Future

Working Papers

The Informality Trade-Off: Wages and Rural-Urban Migration in South Africa
JOB MARKET PAPER

- Abstract: *In rapidly urbanizing low- and middle-income countries, many rural migrants work in the informal sector, without benefits and for low wages. Would these migrants be better off if the informal sector did not exist? To answer this question, I develop a general-equilibrium model of rural-urban migration based on frictional job search and matching, which I estimate using South African micro data on workers. I find that the urban informal sector serves as a stepping-stone to urban formal jobs. Moreover, I find that it is a valuable outside option for urban formal workers and that its decline can increase the local labour market power of formal firms, which then offer lower wages. This makes cities less attractive, even in the absence of direct job destruction, and is exacerbated by the response of rural firms that offer higher wages and retain potential migrants: after a tripling of monitoring costs, 2.2% of the total population decides not to move, equivalent to 2.7 years of urban growth at current rates. The corresponding rural-urban welfare gap falls from 29.2% to 25.5%. Overall, the decline in urban informality improves the allocation of labour, both across sectors in urban areas and towards more productive firms in rural areas. However, the aggregate impact is muted because there are now more workers in less productive areas.*

Assessing Urban Policies Using a Simulation Model with Formal and Informal Housing
JOINT WITH B. PFEIFFER (IGF), C. RABE (PDG), H. SELOD (WB), V. VIGUIÉ (CIRED), AND P. AVNER (WB) [SUBMITTED]

- Abstract: *Building on a two-dimensional discrete version of the standard urban economics land-use model, this paper presents a tractable urban land-use simulation model that is adapted to developing country cities, where formal and informal housing submarkets coexist. The dynamic closed-city framework simulates developers' construction decisions and heterogeneous households' housing and location choices at a distance from various employment subcenters, while accounting at the same time for land-use regulations, natural constraints, exogenous amenities, and dynamic scenarios of urban population growth and of State-driven subsidized housing. Designed and calibrated for Cape Town, South Africa, the model is used to assess the impact of an urban growth boundary, showing that restricting the possibility of urban expansion makes formal housing more expensive and results in a growing informal housing sector. Another simulation assesses the impacts of changes in the scale of subsidized housing schemes, showing a shift from residences in informal settlement to the backyards of the newly constructed houses.*

Can the Urban Poor Avoid Flood Risks? The Case of Cape Town, South Africa
JOINT WITH P. AVNER (WB), C. LIOTTA (ICTA-UAB), B. PFEIFFER (IGF), C. RABE (PDG), H. SELOD (WB), AND V. VIGUIÉ (CIRED)

- Abstract: *In developing country cities, poor households often reside in unattractive locations, including flood-prone areas. This can be due to poor information about flood risks or acceptance of these risks in the face of lower housing prices. Poor households are also more vulnerable to floods than richer ones given the low-quality housing they occupy. Does information on flood risks help households make better location and housing choices? To what extent will these choices be revised with increased exposure from climate change? To answer these questions, we develop a polycentric urban economics model with heterogeneous income groups, formal and informal housing, and three types of flood risks (fluvial, pluvial, and coastal). The model is calibrated to the city of Cape Town and simulations are run to assess the impact of flood risks on land values and income segregation. Although total damages from floods are greater for rich households, they represent a larger relative share of poor households' incomes. Better information and climate change encourage the relocation of households outside flood-prone zones, but the poor have more inertia due to more stringent financial constraints.*

Work in Progress

Optimal Spatial Policies with Robust Skill Spillovers

Joint with D. Gomtsyan (CREI-UPF)

- Abstract: *Existing evidence points to substantial positive and negative externalities on local amenities and productivities depending on the skill mix of the resident population in a given local labour market. This leads to inefficient spatial sorting of workers at the national scale. However, the policy recommendations associated with the optimal allocation of workers are very sensitive to the estimation of the underlying spillover elasticities. In this paper, we propose a meta-analysis of local population composition shocks studied in the literature to estimate a statistically robust range for those values and discuss how this affects current evaluations. Preliminary results suggest that not accounting for asymmetric mobility responses of high- vs. low-skilled workers in the face of positive vs. negative shocks may be an important source of bias in existing models.*

Seminars, Conferences, & Research Events

2024	**2nd HEC Paris Economics PhD Conference**, France
	13th European Meeting of the Urban Economics Association, Aalborg University, Copenhagen, Denmark
	Paris PhD Seminar in Urban Economics, Université Paris 1 - Panthéon-Sorbonne, France
	UCL PhD Seminar, London, UK
2023	**CREST Internal Seminar**, Paris, France
	5th CIRED International Summer School, Paris, France
	CREST PhD Seminar, Paris, France
2022	**UEA Summer School in Urban Economics**, IEB-UB, Barcelona, Spain
	1st Paris Quantitative Economics Workshop, CREST, Paris, France

Skills

Language

French, *Native*

English, *Fluent* (TOEFL, 647/677)

Spanish, *Fluent* (DELE, C1)

Japanese, *Intermediate* (JLPT, N4)

Polish, *Basic*

Coding

Python, MATLAB, Stata, LaTeX, MS Office: *Advanced*

Arc/QGIS: *Intermediate*

R, SQL, NetLogo: *Basic*

Miscellaneous

First Aid Attendant: *Protection Civile Paris Seine* (PSE2)

International Volunteer Experience: *Alianza Francesa de Iquitos* (Peru), *Solidarité France Népal*, *Last Mile Tanzania*

Certificate in Cognitive Science: *ENS-PSL-EHESS* (Cogmaster)

Certificate in Leadership and Team Spirit: *ESM Saint-Cyr* (SCYFCO)