Recommendation: Gabriel Zuman (PhD supervisor).

Alice Chiocchetti,
52 av. du général Leclerc,
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alice.chiocchetti@psemail.eu

January 31, 2023

Pr. Kevin Bryan, Pr. Ina Ganguli & Pr. Kyle Myers,
National Bureau of Economic Research,
1050 Massachusetts Avenue,
Cambridge, Massachusetts 02138-5398

Dear Committee,

My name is Alice Chiocchetti and I am a second-year PhD student at the Paris School of Economics. My main field of research is corporate taxation, and I am particularly interested in the use of intellectual property location as a profit shifting device. I would like to broaden my scope and be familiar with frontier research in the field of innovation economics, for which attending the Innovation Boot Camp would be ideal.

Before starting my PhD, I graduated from the Ecole Normale Supérieure Paris-Saclay, one of the most selective programs in France, which aims to form researchers across all fields. After studying law, economics and sociology during my bachelor, I decided to pursue a master degree at the Paris School of Economics. I started studying tax evasion in my thesis with Thomas Piketty, and decided to continue to work in the same expanding field of research, focusing on firms.

Along my readings, I figured that intellectual property location was a key driver of profit shifting, and that this phenomenon had large detrimental effects on the construction of national accounts and public finances. Finding precise estimates of the share of profits that are shifted due to this particular channel stroke me as a question of particular interest for policy makers.

I hence decided to dig in the broader literature on innovation and discovered a fascinating area of research, with links to a wide variety of fields. I am especially interested in research on policies targeting R&D spillovers and intellectual property revenues taxation, as well as in the estimation of patents value and the profits firms derive from innovation. In order to undertake my research projects on intellectual property, I received a 5 000€ funding from the Cepremap, a French research institution. I presented my first results at the EUTax conference held in Prague in November.

Thank you very much for considering my application. I look forward to hearing from you soon.

Yours sincerely,

Alice Chiocchetti

Alice Chiocchetti

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Summary

I am a second year PhD candidate at the Paris School of Economics under the supervision of Gabriel Zucman, working on firms international taxation and inequalities. Before, I was at the Ecole Normale Supérieure (Paris-Saclay) and the Paris School of Economics.

Doctoral studies

2021 - Present PhD **Paris School of Economics**
Advisors: Gabriel Zucman (main), Antoine Bozio & Thomas Piketty

Fall 2022 **University of Copenhagen** (Center for Economic Behavior and Inequality)
Sponsor : Niels Johannesen

Pre-doctoral studies

2018 - 2020 M.A. **Paris School of Economics** (High honors)
2015 - 2021 B.A. **Ecole Normale Superieure (Paris-Saclay)**, full fellowship (major in economics, minor in sociology and law) (High honors)

Work in progress

Patents value and profit shifting (Job Market Paper),

Are profits derived from patents higher in low-tax countries? I answer this question relying on French administrative data and patents data to estimate the amounts of overestimated profits in tax havens.

Intellectual property and profit shifting - an evaluation of the EU nexus requirements,

I use French administrative data to estimate whether French groups have relocated their intellectual property after the introduction of the EU nexus requirements.

Commodity prices and sharing the extractive rent, *with Ninon Moreau-Kastler.*

Using rich field-level data, we explore the effects of change in oil and gas prices on profit shifting through an overestimation of costs by oil and gas companies.

Credit booms and inequalities, *with Asgar Andersen, Niels Johannesen, Clara Martinez-Toledano & José-Luis Peydro.* Using administrative Danish data, we estimate the effects of the 2008-crisis credit boom and bust on consumption inequalities through the channel of wages.

Research experience

Research assistant for the World Inequality Lab *Summer 2020*

Under the supervision of Lucas Chancel, I estimated the amounts of imported and exported greenhouse gas emissions using input/output consumption data.

Other work experiences

Direction Generale du Tresor (French Ministry of Finance) *Summer 2019*

Working for the Public Policies department on labour policies

Teaching assistant in Economics *2019 - 2020*

For the introduction to Economics class in L1, University Paris 1 Sorbonne

Teaching assistant in Mathematics *2016 - 2018*

For French competitive Classes Preparatoires in Lycee Lakanal, Sceaux

Presentations

EUTax conference in Prague on the 4-5th of November 2022.

Fellowships

Ile de France Region *November 2022*

International Mobility Grant

Cepremap funding *June 2022*

Research Funds

French Ministry of Research *December 2021 - November 2024*

Full Doctoral Fellowship

Ecole Normale Supérieure (Paris-Saclay) *September 2015 - August 2020*

Full Fellowship

Completed masters and PhD courses

I have completed the two-year master program *Analysis and Policy in Economics* at the Paris School of Economics.

Courses completed in first year:

- **Econometrics** 1 (Nicolas JACQUEMET), 2 (Mélika BEN SALEM, Catherine DOZ) & 3 (Luc BEHAGHEL, Philipp KETZ).
- **Macroeconomics** 1 (Jean-Olivier HAIRAULT, Tobias BROER) & 2 (Daniel COHEN, Gilles SAINT PAUL).
- **Microeconomcis 1** (Pierre-Yves GEOFFARD, Mathieu LEDUC) & 2 (Francis BLOCH, Bernard CAILLAUD).
- **Game theory** (Olivier COMPTE).
- **International Trade** (Thierry VERDIER), **Macroeconomic Policies** (Agnès BENASSY-QUERE), & **International economics** (Francesco PAPPADA).
- **Mathematics and Statistics for Economic Analysis** (Giacomo WEBER), **R Practice class** (Philipp KETZ, Hannah Bull).
- **Introduction to Economic History** (Thomas PIKETTY).

Courses completed in second year:

- **Advanced Microeconometrics** (David MARGOLIS, François LIBOIS).
- **Econometric Methods** (Philipp KETZ).
- **Machine learning in Economics** (Hannah BULL, Philipp KETZ).

- **Environmental Economics** (Mireille CHIROLEU-ASSOULINE, Katheline SCHUBERT).
- **Labor Economics** (Andrew CLARK, François FONTAINE, François LANGOT, David MARGOLIS).
- **Public Economics** (Thomas PIKETTY, Antoine BOZIO, Julien GRENET).
- **International Macroeconomics** (Matthieu BUSSIÈRE, Agnès BENASSY-QUERE).
- **Monetary and Financial History** (Pierre-Cyrille HAUTCOEUR, Eric MONNET).
- **Topics in Exchanges** (Gabrielle DEMANGE).

Courses completed in PhD:

- **Labor and Public Economics** : Education (GURGAND Marc); Labour (David MARGOLIS, Marion LETURCQ, Luc BEHAGHEL); Public Policies (Thomas BREDA, Antoine BOZIO, Francois FONTAINE, Julien GRENET); Urban economics (Camille HEMET, Laurent GOBILLON).
- **Econometrics** (Philipp KETZ); **Econometrics and Machine Learning** (Emmanuel FLACHAIRE).

Research and motivations - NBER Innovation Research Boot Camp

Alice Chiocchetti

January 31, 2023

Current research. I am currently working on two projects on the use of intellectual property (IP) location as a profit shifting technique for firms. So far, much has been done on the links between tax rates and IP location (Hall, Jaffe, and Trajtenberg, 2005, Alstadsæter et al., 2018, Griffith, Miller, and O'Connell, 2014). The literature also converges toward high overall amounts of profits shifted in low tax countries (Tørsløv, Wier, and Zucman, 2018), with evidence on the prominent role of IP-intensive sectors (Guvenen et al., 2022). However, the literature estimating the profits directly derived from IP is scarce. My goal is to bridge this gap by providing precise estimates of the amounts of profits shifted due to IP location. Both my projects rely on a panel dataset which combines administrative data on French multinationals' unconsolidated financial information with the patents they own in France and abroad.

In a first project, I evaluate the impacts of a policy implemented in the European Union in 2016, designed to condition the use of preferential tax regimes (so-called "patent boxes") on revenues derived from IP to actual investment in R&D.

In a second project, I investigate whether profits derived from patents are higher in lower tax countries for given patents and firms characteristics. I compare the profits derived from IP abroad (calculated following a method used in Kline et al., 2019) to a benchmark, based on a predictive model calibrated on a large sample of French firms.

Future research. I would like to continue to work on the links between intellectual property and taxes. An idea I would be very glad to explore would be to study whether profits generated by IP in a lower-tax country are reinvested by the firm in local R&D expenses. I would also like to study researchers mobility due to corporate tax rates in Europe, exploring various determinants of mobility in the same way as Azoulay, Ganguli, and Graff Zivin, 2017. Moretti and Wilson, 2017 have provided large estimates for the case of the United States, and it would be interesting to focus on a context with larger mobility frictions and very heterogeneous levels of wages.

Motivations. The Innovation Research Boot Camp would be an incredible opportunity to have a broader view of the field as well as a deeper understanding of patent systems and of the strengths and weaknesses of data on IP. The sessions on innovation policies given by John Van Reenen last year were directly related to my research, and contributed to strengthen my current work. Attending the Boot Camp and the Summer Institute would also be an excellent chance to think of new ways to study the relationships between taxes and IP and their various effects on capital allocation, labour mobility and earnings, and worldwide investments in R&D. I would also be keen on meeting with other participants of the program, engage in the research community and launch common projects linked to innovation in the future.

References

Alstadsæter, Annette et al. (2018). "Patent boxes design, patents location, and local R&D". In: *Economic Policy* 33.93, pp. 131–177.

Azoulay, Pierre, Ina Ganguli, and Joshua Graff Zivin (2017). "The mobility of elite life scientists: Professional and personal determinants". In: *Research Policy* 46.3, pp. 573–590.

Griffith, Rachel, Helen Miller, and Martin O'Connell (2014). "Ownership of intellectual property and corporate taxation". In: *Journal of Public Economics* 112.C, pp. 12–23.

Guvenen, Fatih et al. (June 2022). "Offshore Profit Shifting and Aggregate Measurement: Balance of Payments, Foreign Investment, Productivity, and the Labor Share". In: *American Economic Review* 112.6, pp. 1848–84.

Hall, Bronwyn, Adam Jaffe, and Manuel Trajtenberg (2005). "Market Value and Patent Citations". In: *RAND Journal of Economics* 36.1, pp. 16–38.

Kline, Patrick et al. (2019). "Who Profits from Patents? Rent-Sharing at Innovative Firms". In: *The Quarterly Journal of Economics* 134.3, pp. 1343–1404.

Moretti, Enrico and Daniel J. Wilson (July 2017). "The Effect of State Taxes on the Geographical Location of Top Earners: Evidence from Star Scientists". In: *American Economic Review* 107.7, pp. 1858–1903.

Tørsløv, Thomas R., Ludvig S. Wier, and Gabriel Zucman (June 2018). *The Missing Profits of Nations*. NBER Working Papers, forthcoming in the Review of Economic Studies 24701. National Bureau of Economic Research, Inc.

Mr. Gabriel Zucman
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48 blv. Jourdan,
75014, Paris

Mr. Kevin Bryan,
Ms. Ina Ganguli,
M. Kyle Myers
NBER,
1050 Massachusetts Avenue
Cambridge, Massachusetts 02138-5398

January 31, 2023

Dear Admission Committee,

I am writing to recommend **Alice Chiocchetti** for the Innovation Research Boot Camp **in the strongest possible terms**. Alice is a highly promising PhD candidate at the Paris School of Economics, working on firm innovation and taxation. I have known Alice since her master's degree at the Paris School of Economics and am now supervising her PhD dissertation.

Alice is currently working on a very promising project on profit shifting stemming from the location of intellectual property in low-tax places. This could lead to future exciting work on the distribution of fiscal windfalls from research and development across countries. Alice would benefit tremendously from the bootcamp to pursue her research agenda.

Please do not hesitate to contact me should you need any additional information.

Yours sincerely,

Gabriel Zucman

