# Alaïs Martin-Baillon

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#### **Research Interests**

Macroeconomics, Heterogeneous Agents, Firms, Business Cycle

## References

Xavier Ragot (supervisor) - Sciences Po Professor - Economic Department xavier.ragot@sciencespo.fr

FLORIN BILBHE - University of Lausanne Professor - Economic Department florin.bilbiie@gmail.com

MIRKO WIEDERHOLT - Ludwig-Maximilians-Universität Munchen Professor - Economic Department mirko.wiederholt@gmail.com

GILLES SAINT-PAUL - Paris School of Economics Professor - Economic Department gstpaulmail@gmail.com

## Education

2017-2021	$\operatorname{Ph.D.}$ in Economics (Sciences Po) - 'Essays on the design of macroeconomic policies in heterogeneous agent models'
2015-2017	M.Sc. in Economics 'Analysis and Policy in Economics' (APE, Paris School of Economics)

# Research experience

2020	Sciences Po - Research Assistant for Jeanne Commault - Measuring Consumption Inequality
2016-2017	Sciences Po - French Economic Observatory (OFCE) - Research Assistant
2015	Natixis, Research Department - Assistant Econometrician (intern) for Patrick Artus (Chief Economist)

# **Teaching**

2017-2021	Graduate Macroeconomics 2 - Teaching Assistant for Mirko Wiederholt
2018-2021	Graduate Macroeconomics 3 - Teaching Assistant for Xavier Ragot
2017-2018	Graduate Macroeconomics for Public Policies - Teaching Assistant for Xavier Ragot and Philippe Andrade
2020-2021	Undergraduate Mathematics for Quantitative Social Sciences - Lecturer

## Job Market Paper

#### When should we tax firms? Corporate fiscal policy with firm heterogeneity

Corporate fiscal policy over the business cycle is carried out in very different ways over time and across countries. Moreover, little is known about how it should be conducted. This paper studies the design of optimal fiscal policy in a heterogeneous firm environment, when the economy is hit by aggregate shocks. It provides tools to understand when and how heterogeneous firms should be taxed or subsidized over cycles. To tackle this issue, I first solve a tractable model which delivers a simple distribution of firms. In this framework, I provide an analytical characterization of the corporate tax rate over the business cycle. Then, using a fully fledged heterogeneous firm model and cutting-edge computational method, I solve for the optimal path of the tax rate in this environment. My main result is that, in both exercises, the variation of the optimal tax rate depends on the expected persistence of the aggregate shock. This is due to the presence of financial constraints that prevent the allocation of capital from being optimal. I show that the magnitude of this problem varies over the business cycle depending on the persistence of the aggregate shock. When the shock is very persistent, this problem decreases and the optimal tax rate is pro-cyclical. On the contrary, when the shock is not persistent, this problem increases and the optimal tax rate is counter-cyclical.

## Work in Progress

Should monetary policy care about redistribution? Optimal fiscal and monetary policy with heterogeneous agents Joint with François Le Grand and Xavier Ragot

We derive optimal monetary and fiscal policies in a heterogeneous-agent economy with nominal frictions and aggregate shocks, and allowing for a rich set of fiscal tools. We first theoretically show that when linear taxes on capital and labor are available, there is no redistributive role for monetary policy: monetary policy solely implements price stability. Second, when fiscal tools are incomplete, we find that optimal deviation from price stability is quantitatively very small when the economy is running for a long time, i.e. in a timeless perspective. Redistribution is then mostly a matter of fiscal policy. When fiscal tools are missing, there can be a significant though temporary deviation from price stability when we consider a time-0 problem where the planner is not constrained by past commitment. We provide analytical results using an extended Lagrangian approach applied to incomplete-market models. Quantitative results are derived thanks to a truncated representation of incomplete-market models, which provides a relevant tractable environment.

#### Firms' Marginal Propensities to Invest

How to stimulate aggregate investment? There are different transmission channels from macroeconomic policies to firm's investment. Changes in firms' income is an important one. Therefore, designing efficient counter-cyclical policies requires an understanding of how changes in firms' income translate into changes in firms' investment and which firms are the most responsive to such policies. In this paper, I use a new method to estimate firms' marginal propensities (MPIs) to invest out of a transitory liquid income shock. I use a semi-structural method developed in the household literature and I show that this method can overcome difficulties encountered in previous estimations. I also investigate MPIs heterogeneity across firms. I show that firms' MPIs are positive and significantly different from 0. On average, firms use 14.4% of the change in current income caused by a transitory income shock to invest. Moreover, firms that face financial constraints and/or firms that face liquidity constraints have higher MPIs than the ones that don't. Finally, I show that MPIs are very heterogeneous across sectors.

## Policy Work

What impact does the CICE have on wages and employment? An evaluation for the period 2014-2017 on industry data (joint with Bruno Ducoudré, Éric Heyer and Mathieu Plane) SciencesPo OFCE Working Paper n°25, 2017/10/26

#### Other Publication

Helicopter money: beyond myth and magic - (joint with Florin Bilbiie and Gilles Saint-Paul)
Book: Cepremap Collection, Rue d'Ulm Edition

## Conferences

2021 European Winter Meetings of the Econometric Society (forthcoming), SciencesPo Friday Seminar, 52nd Annual Conference of the MMF Society, IAAE 2021 Annual Conference, 23rd INFER Annual Conference, AFSE Annual Congress 2020, SciencesPo Ph.D Econ Seminar

2020 | SciencesPo Friday Seminar

2018 | 50th Annual Conference of the MMF Society

## **Event Organization**

Macro Reading Group (SciencesPo / OFCE): "The Macroeconomic Implications of Microeconomic Heterogeneity" (with Édouard Challe and Xavier Ragot)

## Grant

2021-2022	Fellowship - Banque de France / SciencesPo
2020-2021	Temporary Lecturer - SciencesPo
2017-2010	SciencesPo Doctoral School Scholarship

#### Language and Computer Skills

Language | French, English Computer | Julia, Stata, Matlab, Dynare, Python, EViews