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Appointment

Since 09/2014 — **Nuffield College and Department of Economics, University of Oxford**
Postdoctoral Research Fellow

Education

2010-2014 — **Paris School of Economics (PSE) - Université Paris I Panthéon Sorbonne - CREST**
Ph.D. in Economics *(Allocataire Moniteur Normalien and 4th year CREST Scholarship)*
Defended on 1st October 2014
Jury: Florin Bilbiie (advisor), Vasco M. Carvalho, Xavier Gabaix (referee), Jean Imbs (president), Boyan Jovanovic (referee)

2009-2010 — **Paris School of Economics (PSE)**
MA in Economics - "Analyse et Politique Économiques" (APE) *magna cum laude*

2006-2010 — **ENSAE - National school of statistics and economics** (Top 5% accepeted nationally)
"Option Formation Par la Recherche"

2008-2010 — **École Normale Supérieure de Cachan**
"Agrégation" in Mathematics in 2009 (Top 10%)

Job Market Paper

IO in I-O: Competition and Volatility in Input-Output Networks

There is a growing literature suggesting that firm level productivity shocks can help understand macroeconomic level outcomes. However, existing models are very restrictive regarding the nature of competition within sector and its implication for the propagation of shocks across the input-output (I-O) network. The goal of this paper is to offer a more comprehensive understanding of how firm level shocks can shape aggregate dynamics. To this end, I build a tractable multi-sector heterogeneous firm general equilibrium model featuring oligopolistic competition and an I-O network. It is shown that a positive shock to a large firm increases both the average productivity and the Herfindahl Index in its sector. By reducing the sector price, the change in average productivity propagates only to downstream sectors. Conversely, the change in the Herfindahl Index, by increasing price and reducing demand for intermediate inputs, propagates both to downstream and upstream sectors. The sensitivity of aggregate volatility to firms' shocks is determined by the sector's (i) Herfindahl Index, which measures the volatility of the sector, (ii) position in the input-output network, which measures the direct and indirect importance of this sector for the household, and (iii) relative market power in the supply chain, which relates to the changes in demand to upstream sectors.

Working Paper

Large Firm Dynamics and the Business Cycle
(joint with Vasco M. Carvalho - University of Cambridge)
R&R at American Economic Review
Do large firm dynamics drive the business cycle? We answer this question by developing a quantitative theory of aggregate fluctuations caused by firm-level disturbances alone. We show that a standard heterogeneous firm dynamics setup already contains in it a theory of the business cycle, without appealing to aggregate shocks. We offer a complete analytical characterization of the law of motion of the aggregate state in this class of models – the firm size distribution – and show that the resulting closed form solutions for aggregate output and productivity dynamics display: (i) persistence, (ii) volatility and (iii) time-varying second moments. We explore the key role of moments of the firm size distribution – and, in particular, the role of large firm dynamics – in shaping aggregate fluctuations, theoretically, quantitatively and in the data.

Why Risky Sectors Grow Faster?
(joint with Jean Imbs - CNRS - Paris School of Economics)
Because they are populated by a few large firms and many small ones. We construct a model of idea flows in which growth and volatility both depend on the prevalence of large firms in a sector. There is a finite number of firms that choose between a "local" and a "global" technology. The "local" technology means producing using a random technology, given by a discrete Markov deviation from its earlier value. In the limit, "local" firms define an expanding technology frontier. The "global" technology means drawing technology from the pool of existing producers. In equilibrium, the "local" technology is chosen by large enough firms only, and growth increases in their share. Since the "local" technology has stochastic consequences, so does volatility. The model's key predictions are born out in US firm-level data: growth and volatility both increase in the share of large firms, which can explain a sizeable fraction of the positive link between growth and volatility at microeconomic level.

Work in Progress

Bottom-up Markup Cyclicality
(joint with Ariel Burstein - UCLA and Vasco M. Carvalho - University of Cambridge)

A Note on the Hopenhayn Model: Analytical Solution in Discrete Time

Teaching experience

Since 2015	**University of Oxford** *Firm Heterogeneity in Macroeconomics* Advance Macroeconomics I (Mphil 2nd year) Post-Graduate
2014 – 2016	**University of Oxford** *Class Teacher (Teaching Assistant)* Macroeconomics (MPhil 1st year) Post-Graduate
2010 – 2012	**Université Paris I Panthéon Sorbonne** *Teaching Assistant for Professors Jean-Olivier Hairault and Elisabeth Cudeville* Macroeconomics (L2) Undergraduate
2010 – 2012	**École Normale Supérieure de Cachan** **Paris School of Economics-Université Paris I Panthéon Sorbonne** *Teaching Assistant (in english) for Professors Florin Bilbiie and Nicolas Dromel* Quantitative Macroeconomics Analysis (M1) Graduate
2007–2010	**Lycée Janson-de-Sailly** *Interrogator (teaching assistant) for Professors Luc Abergel and Carine Apparicio* Mathematics (CPGE) Undergraduate

Research experience

2012 – 2013	**New York University (NYU)** *Visiting Graduate Student* Fulbright Scholarship Under the supervision of Professor Bojan Jovanovic
April-May 2012	**Centre de Recerca en Economia Internacional (CREI)** **Universitat Pompeu Fabra (UPF)** *Visiting Graduate Student* Under the supervision of Professor Vasco Carvalho
2010 – 2011	**Paris School of Economics** *Reasearch Assistant for Professor Romain Rancière* Working Paper "Inequality, Leverage and Crises" with Michael Kumhof (IMF)
May-August 2011	**European Central Bank - DG/E Monetary Policy Strategy Division** *Graduate internship* Under the supervision of Massimo Rostagno and Roberto Motto

Seminar and Conference Presentations

2016	CREST, National Bank of Belgium*, Bank of England, University of Minnesota*, CEPR Workshop Leuven (Understanding the Micro Channels Affecting Growth), ESSIM 2016 CEPR Helsinki, 15^{th} Journée Louis-André Gérard-Varet, Banque de France (Workshop Granularity and Macro), SED 2016 Toulouse, Banque de France (Joint French Macro Workshop)
2015	European University Institute*, Bank of England, SITE-Stanford Summer Workshop, SED 2015 Warsaw, NBER Summer Institute EFCE*, Birkbeck College, University of Oxford
2014	CREST (Macro Workshop), Warwick Economics PhD Conference, University of Oxford, Princeton University*, NY Fed*, Stern/New York University*, Banque de France (Joint French Macro Workshop)
2013	Paris School of Economics (Macro Workshop), NYU (Macro Student Lunch Seminar)

* presented by co-author

Honors and Awards

2015	**Louis Forest PhD thesis prize** *Chancellerie des Universités de Paris*
2015	**Special Distinction for best PhD thesis** *Association Française de Science Economique (AFSE)*
2013–2014	**Dissertation Fellowship** *CREST-INSEE*
2012–2013	**Fulbright Fellowship** *French Fulbright Commission*
2010–2013	**Three years Ph.D. scholarship ASN (ex-AMN)** *Ministry of Higher Education and Research - École Normale Supérieure de Cachan*
2008–2010	**Two Years Ecole Normale Supérieure Full Scholarship** *École Normale Supérieure de Cachan - Mathematics Department*

Professional Service

Referee
American Economic Review, Management Science, European Economic Review

2014-2016 **Macroeconomics Seminar Organization**
Exeter College Seminar in Macroeconomics at the Department of Economics, University of Oxford

Other professional experience

2007–2008 **Ministry of Economy, Finance and Employment - ENSAE Junior Etude**
Direction Générale de la Modernisation de l'Etat (DGME)
Consultant

2008 **French Strategy Unit - Centre d'Analyse Stratégique - Commissariat Général du Plan**
Research Assitant (Internship)
Under the direction of Oliver Passet (Head of departement) and Clément Schaff

Language and IT Skills

IT

Operating systems	Linux, Windows XP/Vista/7, Mac Os
Progamming languages	CamL, Python, Matlab, Mathematica, Scilab, Maple, Maxima
Statistics & Econometrics	SAS, R, Stata, Eviews

Language

French	Native speaker
English	Fluent
Spanish	Basic grounding

References

Florin Bilbiie	Paris School of Economics Université Paris I Panthéon Sorbonne	florin.bilbiie@parisschoolofeconomics.eu
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Paul Beaudry	University of British Columbia	paul.beaudry@ubc.ca