

**Christoph Hedtrich**  
[www.christophhedtrich.com](http://www.christophhedtrich.com)  
[CHRISTOPH.HEDTRICH@UPF.EDU](mailto:CHRISTOPH.HEDTRICH@UPF.EDU)

## UNIVERSITAT POMPEU FABRA

Placement Directors:

Filippo Ippolito [FILIPPO.IPPOLITO@UPF.EDU](mailto:FILIPPO.IPPOLITO@UPF.EDU) +34-93-542-2578

Graduate Coordinator: Marta Araque [MARTA.ARAQUE@UPF.EDU](mailto:MARTA.ARAQUE@UPF.EDU) +34-93-542-2226

### **Office Contact Information**

Carrer Ramon Trias Fargas, 25-27  
Barcelona, 08005  
Mobile: +34-64-439-7135

### **Personal Information**

Citizenship: German  
Date of birth: 27 June 1990

### **Undergraduate Studies:**

Bachelor of Science in Economics, **University of Mannheim**, Germany 2009-2012

### **Graduate Studies:**

PhD candidate in Economics, **Universitat Pompeu Fabra**, Barcelona, Spain, 2014-present  
Expected Completion Date: May 2019

M. Res in Economics, **Universitat Pompeu Fabra**, Barcelona, Spain, 2014

M. Sc in Economics, **Barcelona GSE**, Barcelona, Spain 2013

### **References:**

Professor Jan Eeckhout  
Universitat Pompeu Fabra  
Phone: +34 93 542 1748  
Email: [jan.eeckhout@upf.edu](mailto:jan.eeckhout@upf.edu)

Professor Edouard Schaal  
CREI and Universitat Pompeu Fabra  
Phone: +34 93 542 2765  
Email: [eschaal@crei.cat](mailto:eschaal@crei.cat)

Professor Markus Poschke  
McGill University  
Phone: +1 (514) 398 1233  
Email: [markus.poschke@mcgill.ca](mailto:markus.poschke@mcgill.ca)

### **Teaching and Research Fields:**

Macroeconomics, Labor Economics, Urban Economics

### **Teaching Experience:**

Fall, 2012 TA Econometrics III (undergraduate) at Universitat Pompeu Fabra for Prof. Majid Al-Sadoon

### **Research Experience and Other Employment:**

2013 - present Universitat Pompeu Fabra, RA for Prof. Jan Eeckhout  
2015 Universitat Pompeu Fabra, RA for Prof. Markus Poschke

**Conferences:** 33rd Annual Congress of the European Economic Association, Cologne (Aug 2018); North American Summer Meeting of the Econometric Society, Davis (Jun 2018); 8<sup>th</sup> Annual Conference European Search and Matching Network, Cambridge (May 2018); USC-Dornsife Conference on Housing, Urban Development, and the Macroeconomy, LA (Apr 2018); Cities and Climate Conference, Potsdam (Sep 2017); Cities as Complex Systems, Hannover (Jul 2016)

**Scholarships and Grants:**

2018	AWS Cloud Credits for Research
2018	Microsoft Azure Research Grant for project “ <i>Gender Differences in Pay, Tenure and Research Productivity</i> ”, (20,000 US-\$ on Azure)
2014	Barcelona GSE Severo Ochoa PhD Track Fellowship
2010-2014	German Academic Scholarship Foundation

**Research:**

“*The Link between Labor Market Dynamism and Job Polarization*” (**Job Market Paper**)

Over the last two decades labor market dynamism, measured by flows of workers between employers, declined substantially in the US. During the same period employment polarized into low and high skill jobs. This paper shows that the two trends are linked. First, I provide a framework to study employment and worker flows, where skill requirements of jobs and workers' skills are complements. I analyze within this framework the effects of routine-biased technological change and the increasing supply of college graduates on labor market flows. When routine-biased technological change displaces mid-skill jobs, it lowers the opportunity to move up to better jobs for low-skilled workers. Similarly, high skilled workers have less opportunity to take stepping stone jobs and are more likely to start employment further up the job ladder, reducing the frequency of transitions between employers. The rising share of college graduates puts further pressure on labor markets by increasing competition for jobs from top to bottom. In equilibrium workers trade down to jobs with lower skill requirements to gain employment, but find it harder to move up as they are competing with more highly educated workers. I quantitatively assess whether such mechanisms contribute to the fall in labor market dynamism, by estimating the model using data on labor market flows. I find that routine-biased technological change and the increase in supply of college graduates together account for over 50% of the decline in mobility, both in the aggregate and conditional on workers' education levels.

“*Automation, Spatial Sorting, and Job Polarization*” with Jan Eeckhout and Roberto Pinheiro

We present evidence showing that more expensive cities – measured by rental costs – have not only invested proportionately more in automation (measured by investment in Enterprise Resource Planning software) but also have seen a higher decrease in the share of routine abstract jobs (clerical workers and low-level white collar workers). We propose an equilibrium model of location choice by heterogeneously skilled workers where each location is a small open economy in the market for computers and software. We show that if computers are substitutes to middle skill workers – commonly known as the automation hypothesis – in equilibrium large and expensive cities invest more in computers and software, substituting middle skill workers with computers. Intuitively, in expensive cities, the relative benefit of substituting computers for routine abstract workers is higher, since workers must be compensated for the high local housing prices. Moreover, if the curvature of the production function is the same across skills, the model also delivers the thick tails in large cities' skill distributions presented by Eeckhout et al. (2014).

**Work in Progress:**

“*Gender Gaps in Pay, Tenure and Research Productivity across Academic Fields*”