# ALEXANDRE CARRIER

#### Curriculum Vitae

### **Personal Information**

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#### RESEARCH INTERESTS

Monetary Economics & Macroeconomics, Bounded Rationality, Heterogeneous Agents

### **EDUCATION**

# Bielefeld University and University of Amsterdam

2019 - 2024

Joint PhD in Economics

Supervisors: Prof. Herbert Dawid (Bielefeld University)

Prof. Cars Hommes (University of Amsterdam and Bank of Canada)

# Paris-Dauphine University

2018 - 2019

Master in Monetary and Financial Economics

with highest honours: 17/20

# Paris-Dauphine University

2017 - 2018

Master in Economics and Financial Engineering

### Goethe University, Frankfurt-am-Main - Paris-Dauphine University

2014 - 2017

Bachelor in Applied Economics - Double-Degree

#### RELEVANT WORK EXPERIENCE

### De Nederlandsche Bank. Amsterdam

September 2023 - August 2024

Research analyst in Monetary Policy Research:

- Development of a suite of monetary policy models, to provide analysis and counterfactuals supporting policy discussions, within the team of Guido Ascari.
- Preparation of internal policy notes.

### European Central Bank, Frankfurt-am-Main

August 2022 - August 2023

PhD traineeship in the Directorate General Monetary Policy, within Senior Management

- Enhancing internal modelling tools: conducting policy analysis by generating counterfactual scenarios using a range of models (DSGE, VAR, models with de-anchored expectations).
- Supporting Senior Management in the preparation of policy work for the Governing Council.
- Assisting Senior Management for the content and design of external speeches and publications.

CEPII, Paris

April - July 2019

Research assistant in the International Macroeconomics and Finance Department:

- Descriptive analysis of household surveys (HFCS, SCF).
- Assistance in the design of a heterogeneous agent model in continuous time.

#### **TALKS**

**2023:** ECB, Strategic Issue Section (*Frankfurt-am-Main*)

DNB internal seminar series (scheduled)

**2022:** AFSE annual congress (*Dijon*)

4th Behavioral Macro Workshop (Bamberg) 16th annual Dynare Conference (Lancaster)

**2021:** Computing in Economics and Finance (CEF 2021, *online*)

International Conference on Economic Modeling and Data Science (EcoMod 2021, online)

Center for Non-Linear Dynamics in Economics and Finance Seminar (Amsterdam)

PhD in Economics and Business seminar (Amsterdam)

Bielefeld Graduate School of Economics and Management (BiGSEM) colloquium

2020: Bielefeld Graduate School of Economics and Management (BiGSEM) colloquium

2019: CEPII Seminar, International Macroeconomics and Finance Department

#### JOB MARKET PAPER

"Assessing the aggregate and distributional implications of large-scale bond purchases in the euro area"

Abstract: This paper studies the effects of the ECB's large-scale bond purchases on euro area economic activity and income inequality, in a New Keynesian model with limited asset market participation. I estimate the model using Bayesian methods and euro area data, considering the occasionally binding constraint on the policy rate and the public sector purchase programme (PSPP) implemented by the ECB in 2015. The results suggest that the PSPP has effectively lifted both output and inflation. In terms of income inequality, the impact was modest overall but exhibited a non-linear profile. In the early years of the program, income inequality widened, reflecting rising asset prices. Subsequently, however, this trend reversed, with gradual and sustained growth in labor income becoming the predominant factor, leading to a decline in income inequality.

# WORK IN PROGRESS

"Optimal normalization policy under behavioral expectations" joint with Kostas Mavromatis, (De Nederlandsche Bank & University of Amsterdam)

Abstract: In this paper, we analyze the optimal strategy for a central bank's normalization policy in response to a persistent inflationary shock within a model in which agents' expectations can become de-anchored. We show analytically that, when designing optimal policy, the trade-off changes when expectations are de-anchored and is more costly for economic activity. We characterize optimal policy rules using sufficient statistics, which map the causal effects of policy instruments on each target of the policymaker. Through the use of simulations, we derive optimal interest rates and Quantitative Tightening (QT henceforth) trajectories. We find that QT is less effective than the policy rate to stabilize inflation, and more costly for the output gap. When jointly determining interest rates and QT, we demonstrate that expectations have a limited impact on QT trajectories but a more significant influence on interest rates.

## "Behavioral learning equilibria in a bond market with asset purchases"

joint with Cars Hommes (University of Amsterdam & Bank of Canada)

Abstract: This paper studies the effects of central banks' asset purchases on long-term government bond yields, in a model featuring investors who adopt a simple yet optimal AR(1) forecasting rule based on past data. By examining the convergence dynamics of agents towards a specific Behavioral Learning Equilibrium (BLE), we uncover the factors that shape the efficacy of these policies: financial market volatility and short-term interest rates. In periods characterised by low financial stress, agents' learning process leads to stable convergence, with forecasts exhibiting a near-unit root first-order autocorrelation coefficient. As a consequence, quantitative easing (QE) demonstrates significant and persistent effects on bond yields. However, in times of heightened financial volatility, multiple equilibria emerge, leading QE to have effects that vary from high to low persistence.

#### ADDITIONAL COURSEWORK

**2021:** University of Oxford, Tools for Macroeconomists (Summer School)

Tinbergen Institute, Advanced Topics in Macro I

(Course on computational methods for incomplete market and HANK models)

**2020:** Tinbergen Institute, Behavioral Macroeconomics and Complexity (Summer School)

# PERSONAL SKILLS AND COMPETENCES

Languages: French (Native)

English (Fluent)

German (Working knowledge)

Computer skills: Matlab, Dynare, IRIS, Stata, Julia, Python, SAS, Eviews

Microsoft Office, LATEX

#### REFERENCES

### Prof. Herbert Dawid

Bielefeld University

Department of Business Administration & Economics

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### Roberto Motto

European Central Bank

Directorate General Monetary Policy

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### Christophe Kamps

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### Prof. Cars Hommes

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#### **Kostas Mayromatis**

De Nederlandsche Bank

Research Department

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