

# João Henrique Barata Gouveia de Oliveira

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## Academic References

**Pedro Brinca** – Nova School of Business and Economics (Nova SBE), Portugal.

[pedro.brinca@novasbe.pt](mailto:pedro.brinca@novasbe.pt)

**João B. Duarte** – Nova SBE, Portugal.

[joao.duarte@novasbe.pt](mailto:joao.duarte@novasbe.pt)

**Ellen R. McGrattan** – Department of Economics, University of Minnesota, USA.

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**Hans H. Holter** – Department of Economics, University of Oslo, Norway.

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**João Amador** – Deputy Head, Research Department, Banco de Portugal.

[jamador@bportugal.pt](mailto:jamador@bportugal.pt)

## Education

- 2022 **PhD in Economics**, Nova SBE (expected).
- 2019 **Visiting Student Researcher**, University of Minnesota, Department of Economics, U.S.
- 2015 **Post-Graduation in Bank Regulation and Supervision**, Nova SBE and Banco de Portugal.
- 2014 **Research Masters in Economics**, Nova SBE.
- 2011 **B.S. in Management**, Nova SBE.

## Professional and Teaching Experience

- 2013-18 **Economist**, Banco de Portugal (Portuguese Central Bank), Financial Stability Department.
  - Coauthored “Bank Profitability and Macroeconomic Factors”.
  - Authored “Inefficiency Distribution of the European Banking System”.
  - Banco de Portugal’s representative in European Central Bank and European Systemic Risk Board fora (Macroprudential Analysis Group, Heatmap Dashboard Working Group, and Cyclical Risk Analysis Working Group).
  - Participated in the construction of the [Macroprudential database](#) and the [ECB/ESRB financial crises database](#). Contributed to the Financial Stability Report and have experience drafting briefings to departmental management and the Board.
  - Participated in the construction of the macroprudential report to the Board and other risk analysis dashboards. Introduction of detailed financial intermediaries in Banco de Portugal’s PES-SOA model (large scale DSGE) for policy analysis.

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- 2019      **Teaching Assistant**, *Seminar in European Economics*, Nova School of Business and Economics.
- Teaching evaluations: 5.4 of 6.0 (school average of 4.9)
- 2018      **Grader**, *Introduction to Programming with Python*, Nova School of Business and Economics.

## Scholarships & Awards

- 2019      **Fullbright Research Grant**, Fullbright Commission.
- 2018      **PhD Scholarship**, **Fundação para a Ciência e a Tecnologia**, Ministry of Science, Technology and Higher Education, Portuguese Government.
- 2015      **Advanced Training Scholarship**, Banco de Portugal.
- 2012      **Tuition waiver for merit**, Nova SBE.

## Fields of interest

Quantitative Macroeconomics, Heterogeneous Agents, Financial Economics.

## Publications

- 2017**      **Bank Profitability and Macroeconomic Factors**, *Financial Stability Papers*, Banco de Portugal.

Joint with Ricardo Martinho (Banco de Portugal) and Vítor Oliveira (Banco de Portugal).

*Abstract:* Since 2000 the European banking sector experienced high earnings volatility both across time and among individual banks, culminating in a sharp decline in profitability in 2008, which remained thereafter at much lower levels compared to pre-crisis levels. In this paper, we use panel data on a sample of European banks to answer the following questions: (i) how does bank profitability respond to macroeconomic variables? (ii) Is there heterogeneity in that response? To identify the effect of GDP growth on profitability, we use an instrumental variable approach with world GDP growth as an instrument. We find that there is a positive association between real GDP growth and bank profitability due to the procyclicality of impairments. We also find that, on average, European banks benefit from higher reference rates and steeper yield curves.

## Work in Progress

- Mortgage Borrowing Caps: Leverage, Default, and Welfare - JOB MARKET PAPER**

Joint with Leonor Queiró (Banco de Portugal).

*Abstract:* We explore the transmission channels of macroprudential policy in the form of caps on household mortgage borrowing. We employ an overlapping generations model with uninsurable labor income risk, housing, and long-term defaultable loans to measure the impact of maximum loan-to-value (LTV) and debt payment-to-income (PTI) caps on mortgage contracts in an economy without aggregate risk. Calibrating the model to Portugal, which implemented borrowing caps in 2018, we find that leverage caps can lower mortgage debt to output by one-third and eliminate the default rate. However, this comes at the cost of a 2 percent reduction in household welfare, chiefly among income and wealth-poor agents. PTI limits reduce default by limiting debt service but increase indebtedness and household leverage. This mechanism stems from the interaction between labor market risk and the payment-to-income cap: Households fear future adverse income shocks may constrain their access to credit markets and borrow earlier with lower down payments. Finally, we find that the policymaker can achieve a similar reduction in indebtedness and leverage with a smaller welfare cost by setting a less stringent LTV cap or a more restrictive PTI cap.

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**Technological Change and Earnings Inequality in the U.S.: Implications for Optimal Taxation**, MPRA Paper 91463, University Library of Munich, Germany.

Joint with Pedro Brinca, João B. Duarte, and Hans H. Holter (University of Oslo).

*Abstract:* Since 1980 there has been a steady increase in earnings inequality alongside rapid technological growth in the U.S. economy. To what extent does technological change explain the observed increase in earnings dispersion? How does it affect the optimal progressivity of the tax system? To answer these questions, we develop a life-cycle, overlapping generations model with uninsurable idiosyncratic earnings risk, multiple sources of technological change, a detailed tax system, and occupational choice. Calibrating the model to the U.S. we find that occupation-biased technological change can account for three quarters of the increase in post-tax earnings Gini. The main driver is the rising relative wage of non-routine cognitive occupations, which benefit the most from complementarity with capital. However, we show that non-routine manual occupations, which have the lowest average wage, also benefited from technological progress relative to routine occupations, which occupy the center of the wage distribution. Return rates on capital are also markedly higher, and benefit households in all occupations. For this reason, optimal progressivity drops from 1980 to 2015, as lower paid occupations are relatively better off as a result of technological change.

**Inefficiency Distribution of the European Banking System**, Working Paper Series, Banco de Portugal.

*Abstract:* The inefficiency of the European banking system has been pointed out as a major vulnerability from a financial stability point-of-view. This paper contributes to the assessment of this vulnerability by considering several important features of financial intermediation such as factor prices, economies of scope and scale. We use a stochastic frontier analysis method to characterize the production function of financial intermediation in Europe and quantify inefficiency. We find that: (i) in 2013 the median European bank operated with costs 25 to 100% above the efficient level; (ii) there is ambiguous evidence on productivity growth, although inefficiency of financial intermediation has been increasing over time, possibly driven by the least efficient banks; (iii) increasing returns to scale are limited to smaller banks, although scope savings are found to be robust across all models for the average bank and (iv) that there exists a positive association between inefficiency-cost and implicit credit spreads, which are an indicator of credit market restrictions.

**A Semi-Structural Framework for Measuring Credit Cycles in Europe**

Joint with Ana Pereira (Banco de Portugal).

*Abstract:* To what extent can credit booms predict the onset of financial crises? We use a state space modeling framework to measure boom and bust cycles in total credit to both households and non-financial corporations (NFC). Furthermore, we develop a measure of the reference level of credit in the economy which depends on the expected value of collateral and repayment effort, derived from the collateral constraints in Iacoviello (2005). This allows us to estimate cycles by imposing a structural form and to break them down into a set of components. Our preliminary findings indicate that household credit booms out-perform both the Basel Gap and booms in NFC credit in predicting the onset of a financial crises, underlining the importance of breaking-down credit into different components.

## Unpublished Work

**2014 The Indiscriminate Shooter: Monetary Policy and State Income Inequality in the U.S.**

Master Thesis. Supervisor: Francesco Franco (Nova School of Business and Economics).

*Abstract:* This paper focuses on the role of monetary policy in explaining the fluctuations of state income inequality and attempts to answer two questions: (i) how does monetary policy affect income inequality?; (ii) How does monetary policy affect the share of total income of earners at the top of the distribution? Using state level inequality data by Frank (2008) and a panel VAR method, we find that monetary contractions have a significant positive effect on income inequality and on the shares of top income earners across the U.S.

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## Complementary Education

- 2019 **Advanced Topics in Macroeconomics**, taught by Ellen R. McGrattan and Loukas Karabarbounis (University of Minnesota) at the University of Minnesota, Minneapolis, U.S.
- 2019 **Computational Economics**, taught by Ellen R. McGrattan and Anmol Bhandari (University of Minnesota) at the University of Minnesota, Minneapolis, U.S.
- 2018 **Financial Frictions in DSGE Models**, taught by Paul Levine and Afrasiab Mirza (University of Surrey) at Banco de Portugal, Lisbon, Portugal.
- 2018 **Computational Economics with Python**, taught by João Duarte at Nova School of Business and Economics, Lisbon, Portugal.
- 2017 **Quantitative Methods in (Macro)economics: Applications in Macroeconomics**, taught by Pedro Brinca at Nova School of Business and Economics, Lisbon, Portugal.
- 2016 **Macroprudential Policies**, taught by Nobuhiro Kiyotaki (Princeton University) at the European University Institute, School of Banking and Finance, Florence, Italy.
- 2016 **Applied Bayesian Econometrics for Central Bankers**, taught by Andrew Blake (Bank of England), Gabor Pinter (Bank of England), and Haroon Mumtaz (Queen Mary University) at the Bank of England, London, U.K.
- 2016 **An introduction to DSGE modelling in Dynare**, taught by Vasco Gabriel (University of Surrey) at Banco de Portugal, Lisbon, Portugal.
- 2010 **Political Economy of Public Policy Summer School**, taught by Valentino Larcinese (London School of Economics) at the London School of Economics, London, U.K.

## Languages

**Portuguese** Native speaker

**English** Excellent proficiency, written and spoken

- 2006 - University of Cambridge Summer School. Grade: A+.
- 2013 - Test of English for International Communication (TOEIC). Grade: 990/1000.

**French** Basic proficiency, written and spoken

- 2011 - Lisbon Centre for Languages. Grade: A-.

**Italian** Basic proficiency, written and spoken

- 2009 - Lisbon Centre for Languages. Grade: A-.

## Computer Skills

Matlab; LaTeX; Stata; Julia; Python; Fortran; MS Word, Excel and PPT.

## Invited Talks and Seminars

- 2018 PhD Student Workshop, European University Institute, Florence, Italy.
- 2017 Gabinete de Estratégia e Estudos, Portuguese Ministry of Economics, Lisbon, Portugal.
- 2016 ECB – Macroprudential Analysis Group, Frankfurt, Germany.

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## Conference Participations

- 2021 **"14th Meeting of the Portuguese Economic Journal", (Household Borrowing Caps: Debt, Default, and Welfare)**, Porto, Portugal, July 2th-4th.
- 2021 **"Annual Meeting of the Society for Economic Dynamics", (Household Borrowing Caps: Debt, Default, and Welfare)**, Minneapolis, U.S., June 1st-3rd.
- 2021 **"40th LAGV Conference", (Household Borrowing Caps: Debt, Default, and Welfare)**, Marseille, France, June 20th-21st.
- 2019 **"13th Meeting of the Portuguese Economic Journal", (Investment-specific Technological Change and Inequality in the U.S.)**, Évora, Portugal, July 6th-8th.
- 2019 **"Annual Meeting of the American Economic Association", (Automation, Inequality and Taxation in the U.S.)**, Atlanta, U.S, January 4th-6th.
- 2018 **"12th Meeting of the Portuguese Economic Journal", (Automation, Inequality and Taxation in the U.S.)**, Lisbon, Portugal, July 6th-8th.
- 2018 **"Advances in systemic risk analysis: theoretical and empirical approaches focussing on a cross-country perspective"**, Joint Banco de Portugal/European Central Bank/European Systemic Risk Board Workshop, Organizing Committee and Scientific Committee, Lisbon, Portugal, July 4th.
- 2017 **"11th Meeting of the Portuguese Economic Journal" (Inefficiency Distribution of the European Banking System)**, Vila Real , Portugal, July 7th-9th.

## Refereeing

European Economic Review, Journal of Public Economics, Journal of Money, Credit and Banking, Journal of Macroeconomics.

## Other Relevant Activities

- 2019 **The Future of Work in Portugal: The Imperative of Reskilling.**  
Portuguese Industrial Confederation report regarding the impact of automation on employment, industries and occupations, along with a cost-benefit analysis of reskilling for employees, employers and the government. Participated in the quantitative analysis and drafting of the report. Media reference (in Portuguese): [Sapo](#).
- 2019 **Automation and the Future of Jobs in Portugal.**  
McKinsey and Portuguese Industrial Confederation report regarding the impact of automation on employment, industries and occupations.  
Participated in the drafting of the report. Media reference (in Portuguese): [Observador](#).
- 2018- **Economics for Policy.**  
Affiliate. Economics for Policy at Nova School of Business and Economics is a knowledge center dedicated to applying fundamental tools from economics to relevant issues in business and public policy. The center will bring together scientific coherence and real world experience to analyze key challenges facing private and public sector organizations. It aims to produce conceptual and quantitative assessments relevant to organizations, companies, and the public at large.

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2012-13 **Nova Economics Club.**

Founding member and group coordinator. Student club dedicated to the development of research projects with academic or public interest, in close cooperation with national and international institutions and under the guidance of experienced researchers and faculty members. During my participation, we developed a partnership with the Portuguese government and the three institutions (IMF/ECB/European Commission) which provided funding under the Economic Adjustment Programme for Portugal. Concretely, our goal was to developing metrics and models to evaluate the implementation of the Memorandum of Understanding (MoU), i.e., the agreement between these institutions and the Portuguese Government. Our group was in charge of evaluating progress in the Justice System area of the MoU. We completed two reports (2) which were presented in two conferences (1; 2) at the Nova SBE. Our work was supervised by Nuno Garoupa (George Mason University). The Nova Economics Club was the subject of an article in [Der Spiegel](#).

2009-12 **Research Assistant to Professor Jorge Braga de Macedo (Nova SBE).**

Worked on the edition of Professor Kouri's collected works for the Centre for Globalization and Governance at Nova School of Business and Economics. Gathered the materials for the publication and permissions for their printing, among other tasks. Final work with the title: Pentti Kouri, "[Open Economy Dynamics](#)", 2011, Eds. Jorge Braga de Macedo and Urho Lempinen.

## Media Participations

2013 "A Credible Austerity", Article in [Oje](#), joint with Vasco Botelho (available only in Portuguese).

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