

CURRICULUM VITAE

PEDRO MIGUEL SOARES BRINCA

REFERENCES

Flodén, Martin (supervisor) – Swedish Central Bank (on leave from Stockholm University)
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Aguiar-Conraria, Luis – School of Economics and Business, University of Minho
lfaguiar@eeg.uminho.pt

Hassler, John – Institute for International Economic Studies, Stockholm University (IIES)
john.hassler@iies.su.se

Krusell, Per – Institute for International Economic Studies, Stockholm University (IIES)
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McGrattan, Ellen – Department of Economics, University of Minnesota.
erm@umn.edu

HIGHLIGHTS - MACROECONOMICS, MACROECONOMETRICS, TIME SERIES

2018 **Guest Professor at the University of Zurich (PhD intensive course “Business Cycle Accounting”, 21h)**

2018 **Visiting Researcher at the Federal Reserve Bank of St. Louis (May)**

2016 **Fiscal Multipliers in the 21st Century**, together with Hans Holter, Per Krusell and Laurence Malafry. *Journal of Monetary Economics* Volume 77, February 2016, ISSN 0304-3932.

2016 **Accounting for Business Cycles, 2nd Edition of the Handbook of Macroeconomics, Elsevier**
Joint with Varadarajan Chari, Patrick Kehoe and Ellen McGrattan.
Editors: Harald Uhlig and John Taylor, 2016.

2015 - **Assistant Professor (tenure-track) at Nova School of Business and Economics, Lisbon.**

2015 - **Post-Doctoral Researcher at the Center for Economics and Finance, University of Porto**

2014-15 **Jean Monnet Fellow at the Robert Schumann Advanced Studies Center, European University Institute, Florence.**

2007-13 **Lecturer, Thesis Supervisor and Teaching Assistant** at the BSc, MSc and PhD level for 13 courses with 305 hours of teaching/lecturing experience in the classroom and 3 thesis supervised and successfully defended (with distinction). Course evaluations provided upon request (Macroeconomics, Microeconomics, Time Series, Econometrics, Macroeconometrics).

2014 **Distortions in the Neoclassical Growth Model: A Cross Country Analysis**
Journal of Economic Dynamics and Control, Volume 47, October 2014, Pages 1-19, ISSN 0165-188, <http://dx.doi.org/10.1016/j.jedc.2014.07.0139>

2013 Stockholm Doctoral Course Program in Economics, Econometrics and Finance (SDPE)
(Joint Ph.D. program by the University of Stockholm and Stockholm School of Economics)
PhD in Economics – Essays in Quantitative Macroeconomics
- *Opponent: Professor Ellen McGrattan, Federal Reserve Bank of Minneapolis, October 8th 2013*

EDUCATION

- 2013** Stockholm Doctoral Course Program in Economics, Econometrics and Finance (SDPE)
(Joint Ph.D. program by the University of Stockholm and Stockholm School of Economics)
Ph.D. in Economics
- 2012-13** Faculty of Economics, Centre of Economics and Finance, University of Porto
Visiting Scholar
- 2008-09** Department of Economics, University of Minnesota
Visiting Scholar
- 2005-06** Department of Economics, University of Stockholm
Master of Science in Economics and Business Administration, with a major in Economics
§ Classification of Val Godkand (with Honours)
- 2003-05** Department of Economics, University of Stockholm
Bachelor of Science in Economics and Business Administration with a major in Economics
§ Classification of Val Godkand (with Honours)
- 2003-04** Department of Economics, University of Stockholm
Socrates / Erasmus Exchange Program
§ Val Godkand (with Honours) in 6 out of 6 courses

RELEVANT PROFESSIONAL AND TEACHING EXPERIENCE

- 2018** Guest Professor at the University of Zurich (PhD intensive course “Business Cycle Accounting”, 21h, April)
- 2018** Visiting Researcher at the Federal Reserve Bank of St. Louis (May)
- 2015 -** Assistant Professor (tenure-track) at Nova School of Business and Economics, Lisbon.
- Intermediate Macroeconomics Lecturer**, for the BSc in Economics and BSc in Business Administration at Nova SBE (30 hours per semester).
- Supervised PhD Thesis**
- **Essays on Secular Stagnation**, by **Manuel Lancastre** (joint supervision with Francesco Franco), approved with honors in 2016, awarded the Best PhD Dissertation in Economics by Nova SBE and Amélia de Mello Foundation, and featured in *Jornal Económico*. First appointment to Brown University, Department of Economics, as Visiting Assistant Professor.
- PhD students being supervised**
- **João R. Filho**, FEP: business cycle accounting, international macroeconomics
 - **Miguel H. Ferreira**, Nova SBE (visiting the U Cambridge): fiscal policy and inequality
 - **João B. Oliveira**, Nova SBE: macroprudential policy, optimal taxation, structural transformation and inequality
 - **André Coelho**, ISEG: immigration, entrepreneurship, inequality
- Executive Education**
- **Pós-Graduação em Gestão Aplicada** (Microeconomia para Gestores I, 4h)
 - **Pós-Graduação em Gestão Aplicada** (Microeconomia para Gestores II, 4h)
 - **Pós-Graduação em Gestão Aplicada** (Introdução à Macroeconomia e Globalização, 4h)
 - **Curso Geral de Gestão** (Introdução à Macroeconomia e Globalização, 4h)
 - **Pós Graduação de Tecnologias e Gestão da Água** (Economia para Gestores, 12h)
- 2015 -** Post-Doctoral Researcher at the Center for Economics and Finance, University of Porto
- 2014-15** Jean Monnet Fellow (post-doc) at the Robert Schumann Advanced Studies Center, European University Institute, Florence.

- 2013-14 Lecturer** – Department of Economics, Stockholm University
Lecturer of MSc Time Series Econometrics, for the MSc in Economics and MSc in Banking and Finance, Department of Economics and Stockholm Business School, Stockholm University. (24 lecture hours)
- Lecturer of Empirical Methods in Economics I**, for the BSc in Economics, Department of Economics, Stockholm University (20 lecture hours).
- Thesis Supervisor** – Department of Economics, Stockholm University
2014-2015 **Do differences in international labor mobility lead to differences in the fiscal multiplier? A theoretical approach**, MSc thesis in Economics by Andrea Pfammatter. Grade: Pass with distinction(A)
2014-2015 **Monetary policy transmission in Iceland: A structural vector autoregressive approach**, MSc thesis in Economics by Lilja Kro. Grade: Pass with distinction (B).
2013-2014 **Optimum currency area and business cycle synchronization across the U.S. States**, MSc thesis in Economics by Haukur Vidar Gudjonsson. Grade: Pass with Distinction (A).
2013-2014 **Does money growth improve inflation forecasts? An out-of-sample forecast comparison for Sweden**, MSc thesis in Economics by Andreas Collet. Grade: Pass with Distinction (A).
2013-2014 **Estimating a Taylor rule under zero lower bound interest rates**, BSc thesis in Economics by Hermione Heffernan and Nicklas Cervin. Grade: Pass with Distinction (B).
2013-2014 **Fiscal consolidation during the Euro debt crisis: a SVAR approach**, BSc thesis in Economics by Shamiul Ehsan. Grade: Pass (D).
- 2013- Referee**
- Journal of Business Cycle Analysis and Measurement
 - Journal of Macroeconomics
 - Journal of Applied Econometrics
 - The B.E. Journal of Macroeconomics
 - Journal of the European Economic Association
 - Journal of Economic Studies
 - Emerging Markets in Economics and Finance
 - Plos One
 - Bank of Spain Working Paper Series
 - Review of Economic Studies
- 2016 - Associate Editor**
- Notas Económicas
- 2018 Computational Economics with Python**, intensive course ministered at Nova SBE (30 hours)
- 2016 Introduction to Quantitative Methods in Macroeconomics with MatLab Lecturer**, intensive PhD course ministered at Nova SBE. (15 hours).
- 2012-15 Associate Researcher (External) at the Center for Economics and Finance, Faculty of Economics of Porto, University of Porto.**
- 2013 Adjunct Lecturer**, Department of Economics, Stockholm University.
- 2013 Introduction to Quantitative Methods in Macroeconomics with MatLab Lecturer**, intensive MSc/PhD course ministered at the Faculty of Economics, University of Coimbra. (16 hours).
- 2012-13 MSc Empirical Macroeconomics Examiner**, for the MSc in Economics, Department of Economics, Stockholm, University.
- 2011-12 MSc Time Series Econometrics Guest Lecturer**, for the MSc in Economics and MSc in Banking and Finance, Department of Economics and Stockholm Business School, Stockholm University. (3 lecture hours – Introduction to VARs) Course evaluations available upon request
- 2011-12 MSc Time Series Econometrics Teaching Assistant** for Markus Jäntti, for the MSc in Economics and MSc in Banking and Finance, Department of Economics and Stockholm Business School, Stockholm University. (54 hours). Course evaluations available upon request.
- 2011-12 MSc Methodology Seminar Lecturer – Simulation Techniques with MatLab**, MSc in Economics, Department of Economics and MSc in Business Administration, Stockholm Business School, Stockholm University. (8 hours) Course evaluations available upon request.

- 2011-12 MSc Macroeconomics Teaching Assistant**, for Martin Flodén, MSc in Economics, Department of Economics, Stockholm University. (24 hours) Course evaluations available upon request.
- 2011-12 MSc Methodology Seminar Lecturer – A Primer in MatLab**, MSc in Economics, Department of Economics and MSc in Business Administration, Stockholm Business School, Stockholm University. (8 hours). Course evaluations available upon request.
- 2010-11 MSc Time Series Econometrics Guest Lecturer**, for the MSc in Economics and MSc in Banking and Finance, Department of Economics and Stockholm Business School, Stockholm University. (3 hours – Introduction to VARs) Course evaluations available upon request.
- 2010-11 MSc Time Series Econometrics Teaching Assistant** for Markus Jäntti, for the MSc in Economics and MSc in Banking and Finance, Department of Economics and Stockholm Business School, Stockholm University. (54 hours). Course evaluations available upon request.
- 2010-11 MSc Macroeconomics Teaching Assistant**, for Martin Flodén, MSc in Economics, Department of Economics, Stockholm University. (24 hours) Course evaluations available upon request.
- 2009-10 MSc Time Series Econometrics Teaching Assistant** for Matthew Lindqvist, for the MSc in Economics and MSc in Banking and Finance, Department of Economics and Stockholm Business School, University of Stockholm. (54 hours) Course evaluations available upon request.
- 2009-10 Research Intern at the European Central Bank, External Developments Division**, under the supervision of Stephane Dees, Principal Economist
- 2007-08 PhD Econometrics Teaching Assistant** for David Stromberg and Per Pettersson-Lidbom, Stockholm Doctoral Program in Economics (SPDE), Stockholm University and Stockholm School of Economics (9 hours). Course evaluations available upon request.
- 2007-08 MSc Macroeconomics Teaching Assistant** for Anne Boschini, MSc in Economics, Department of Economics, Stockholm University (6 hours). Course evaluations available upon request.
- 2007-08 MSc Microeconomics Teaching Assistant** for Ann-Sofie Kolm, MSc in Economics, Department of Economics, Stockholm University (14 hours). Course evaluations available upon request.
- 2005-06 Consumer Indebtedness Observatory of the Centre for Social Studies of the Faculty of Economics of Coimbra University**
Associate Researcher
Grant from the Science and Technology Foundation (STF):
§ Unemployment and Indebtedness - Project Coordinator: M. M. Marques
- Project report for the STF (with Catarina Frade, Claudia Lopes, Sara Magalhães and Claudia Nogueira)
§ Pilot project in financial literacy, at Instituto D. João V.

PUBLISHED AND SUBMITTED WORK IN ECONOMICS

- 2017 Fiscal Consolidation Programs and Income Inequality (submitted)**
Joint with Miguel Ferreira, Francesco Franco, Hans Holter and Laurence Malafry
Abstract: Following the Great Recession, many European countries implemented fiscal consolidation policies, aimed at reducing government debt. In a recent paper, Blanchard and Leigh (2013) show that these policies had significant negative effects on output and argue that the effects were generally miscalculated by the IMF. Other than the size of the fiscal consolidation they can, however, not find any factor that helps reducing the forecast error. Using the same data, we document a strong positive empirical relationship between higher income inequality and stronger recessive impacts of austerity across European countries. To explain this finding, we develop a life-cycle, overlapping generations economy with uninsurable labor market risk. We calibrate our model to match key characteristics of a number of European economies, including the distribution of wages and wealth, social security, taxes and debt and study the effects of fiscal consolidation programs. We find that higher income risk induces precautionary savings behavior and decreases the proportion of credit-constrained agents in the economy. Credit constrained agents have a higher marginal propensity to consume goods and leisure and their labor supply respond less in response to increases in taxes or decreases in government expenditures. This explains the relation between income inequality and impact of

fiscal consolidation programs. Our model produces a cross-country pattern between inequality and the fiscal multipliers, resulting from consolidation, which is quite similar to that in the data.

- 2017** **Business Cycle Synchronization Across U.S. States**, together with Luis Aguiar-Conraria, Haukur Gudjonsson and Maria Joana Soares. The B.E. Journal of Macroeconomics, ISSN(online 1935-1690. ISSN(print) 2194-6116.

<http://dx.doi.org/10.1515/bejm-2015-0158>

Abstract: We use wavelet analysis to conclude that individual U.S. states' business cycles are very well synchronized. We also find evidence of a strong and significant correlation between business cycle dissimilarities and the distance between each pair of states, consistent to gravity type mechanisms where distance affects trade. Trade, in turn, increases business cycle synchronization, while a higher degree of industry specialization is associated with a higher dissimilarity of the state cycle with the aggregate economy. Finally, there is evidence that business cycle dissimilarities have been decreasing with time, consistent with the previous findings coupled with the idea that information and communications technology make distances smaller.

- 2016** **Accounting for Business Cycles**, together with V.V. Chari, P.J. Kehoe, E. McGrattan, Chapter 13 – Accounting for Business Cycles, In: John B. Taylor and Harald Uhlig, Editor(s), **Handbook of Macroeconomics**, Elsevier, 2016, Volume 2, Pages 1013-1063, ISSN 1574-0048, ISBN 9780444594877 available at: <http://dx.doi.org/10.1016/bs.hesmac.2016.05.002>

Working paper available at:

<https://www.minneapolisfed.org/research/staff-reports/accounting-for-business-cycles>

Abstract: We elaborate on the business cycle accounting method proposed by Chari, Kehoe, and McGrattan (2007), clear up some misconceptions about the method, and then apply it to compare the Great Recession across OECD countries as well as to the recessions of the 1980s in these countries. We have four main ...findings. First, with the notable exception of the United States, Spain, and Ireland, the Great Recession was driven primarily by the efficiency wedge. Second, in the Great Recession, the labor wedge plays a dominant role only in the United States, and the investment wedge plays a dominant role in Ireland and Spain. Third, in the recessions of the 1980s the labor wedge played a dominant role only in Denmark and the United Kingdom. Finally, overall in the Great Recession the efficiency wedge played a much more important role and the investment wedge played a much less important role than they did in the recessions of the 1980s.

- 2016** **Fiscal Multipliers in the 21st Century**, together with Hans Holter, Per Krusell and Laurence Malafry. Journal of Monetary Economics Volume 77, February 2016, ISSN 0304-3932. <http://dx.doi.org/10.1016/j.jmoneco.2015.09.005>.

Abstract: Fiscal multipliers appear to vary greatly over time and space. Based on VARs for a large number of countries, we document a strong correlation between wealth inequality and the magnitude of fiscal multipliers. In an attempt to account for this finding, we develop a life-cycle, overlapping-generations economy with uninsurable labor market risk. We calibrate our model to match key characteristics of a number of OECD economies, including the distribution of wages and wealth, social security, taxes, and government debt and study how a fiscal multiplier depends on various country characteristics. We find that the fiscal multiplier is highly sensitive to the fraction of the population who face binding credit constraints and also to the average wealth level in the economy. These findings together help us generate a cross-country pattern of multipliers that is quite similar to that in the data.

- 2014** **Distortions in the Neoclassical Growth Model: A Cross Country Analysis** Journal of Economic Dynamics and Control, Volume 47, October 2014, Pages 1-19, ISSN 0165-1889, <http://dx.doi.org/10.1016/j.jedc.2014.07.013>

Abstract: This paper investigates the properties of distortions that manifest themselves as wedges in the equilibrium conditions of the neoclassical growth model across a sample of 22 OECD countries for the 1970-2011 period. The quantitative relevance of each wedge and its robustness in generating fluctuations in macroeconomic aggregates is assessed. The efficiency wedge proves to be determinant in enabling models to replicate movements in output and investment, while the labor wedge is important to predict fluctuations in hours worked. Modeling distortions to the savings decision holds little quantitative or qualitative relevance. Also, investment seems to be the hardest aggregate to replicate, as prediction errors concerning output and hours worked are typically one order of magnitude smaller. These conclusions are statistically significant across the countries in the sample and are not limited to output drops. Finally, the geographical distance between countries and their degree of openness to trade are shown to contain information with regard to the wedges, stressing the importance of international mechanisms of transmission between distortions to the equilibrium conditions of the neoclassical growth model.

- 2013** **“Monetary Business Cycle Accounting for Sweden”**
The B.E. Journal of Macroeconomics. Volume 13, Issue 1, Pages –, ISSN (Online) 1935-1690, ISSN (Print) 2194-6116, DOI: [10.1515/bejm-2013-0027](https://doi.org/10.1515/bejm-2013-0027), October 2013
Abstract: “When creating competing models of economic fluctuations, researchers typically introduce frictions in their models aiming to replicate the observed movements in the data. This paper implements a business cycle accounting procedure for the Swedish economy. Both the 1990's and 2008 recessions are given a special focus. Evidence is provided for properties that structural extensions to the business cycle model need to have in order to replicate the movements in the data. Distortions to the labor market and movements in total factor productivity are the most determinant features to be modeled with respect to real variables as well as deviations from a Taylor rule for interest rate setting, though the latter plays little role for both the 1990s or 2008 recessions. The distortions seem to share a structural break during the 1990s crisis but not so during the current one.”
- 2013** **“Consumer Confidence as a Predictor of Consumption Spending: Evidence for the United States and Euro Area”**
Joint with Stephane Dees, published in the ECB Working Paper Series, available at: <http://www.ecb.int/pub/pdf/scpwps/ecbwp1349.pdf>
Final version published in *International Economics 2013, Issue n°134*. available at <http://dx.doi.org/10.1016/j.inteco.2013.05.001>
Abstract: “For most academics and policy makers, the depth of the 2008-09 financial crisis, its longevity and its impacts on the real economy resulted from an erosion of confidence. This paper proposes to assess empirically the link between consumer sentiment and consumption expenditures for the United States and the euro area. It shows under which circumstances confidence indicators can be a good predictor of household consumption even after controlling for information in economic fundamentals. Overall, the results show that, the consumer confidence index can be in certain circumstances a good predictor of consumption. In particular, out-of-sample evidence shows that the contribution of confidence in explaining consumption expenditures increases when household survey indicators feature large changes, so that confidence indicators can have some increasing predictive power during such episodes. Moreover, there is some evidence of a "confidence channel" in the international transmission of shock, as U.S. confidence indices help predicting consumer sentiment in the euro area.”
- 2005** **“Unemployment and Overindebtedness, Contours of a Dangerous Relationship”** with Catarina Frade, Cláudia Lopes, Cláudia Nogueira, and Sara Magalhães - Research Report, CES Publications 2006.

UNPUBLISHED WORK IN ECONOMICS

- 2006** **“The Impact of Public Investment in Sweden – A VAR Approach”**
Master Thesis (Department of Economics of Stockholm University)
- 2005** **“Are Kant’s Categorical Imperative and Instrumental Rationality Compatible? The Case for the Prisoner’s Dilemma”**
Bachelor Thesis (Department of Economics of Stockholm University)

WORK IN PROGRESS IN ECONOMICS

Identification Issues in Maximum Likelihood Estimation of Business Cycle Accounting Models

Joint with Nikolay Iskrev and Francesca Loria

Abstract: Since its introduction by Chari et al. (2007), Business Cycle Accounting (BCA) exercises have become widespread. Much attention has been devoted to the results of such exercises and to methodological departures from the baseline methodology. Little attention has been paid to estimation and identification issues within these classes of models, despite the methodology typically involving estimating relatively large scale dynamic stochastic general equilibrium models. In this paper we investigate whether such issues are of concern in the original methodology proposed by Chari et al. (2007) and in an extension proposed by Sustek (2011), namely Monetary Business Cycle Accounting (MBCA). To assess such identification issues, we resort to two types of identification tests. One concerns strict identification in population as theorized by Komunjer and Ng (2011) while the other deals both with strict and

weak identification in sample as in Iskrev (2015). As to the former, when restricting the estimation to just the parameters governing the latent variable's laws of motion, we find that both in the BCA and MBCA framework, all parameters fulfill the requirements for strict identification. If instead we estimate all structural parameters of the model jointly, both frameworks show strict identification failures in several parameters. These results hold both in population and in sample. When we explore weak identification issues, we find that they affect both models and that they arise from the fact that many of the parameters estimated do not have a distinct effect on the likelihood. Finally, we explore the extent to which these weak identification problems are economically relevant for the main takeaways of a standard and monetary BCA exercise.

Immigration in the 21st Century

Joint with Hans Holter, Per Krusell and Laurence Malafry

Abstract: Migration trends and recent events have brought back immigration and its impact on the world economies to the forefront of economic policy. In the U.S., the stock of foreign born individuals as a share of total population has more than doubled since 1980 and almost tripled, as a share of civilian workforce. In Europe, the recent refugee crisis has sparked a heated debate about how to allocate the refugees across countries. Immigrants individuals typically differ along many dimensions from natives, such as wealth and education, and one would expect immigration to have an impact on wage and wealth inequality, labor market dynamics and, consequently, skill choice and skill premium. We build a calibrated overlapping generations model in order to study the quantitative relevance of such immigration shocks on these variables. We also aim to find how the same immigration intake could lead to different outcomes in different countries, for observable differences in countries' characteristics.

Government Spending and firms' dynamics

Joint with Miguel Ferreira and Francesco Franco

Abstract: Using firm level data and government demand by industry we empirically dismantle the two paths through which variations in government demand affect firms' dynamics: demand and inputs' costs. Empirical results indicate that the inputs' costs channel prevails, with an increase in government demand crowding out private investment through limiting the ability of firms to issue debt. An increase in government demand decreases as well firms' job creation, due to an expansion in labor costs. The combination of an increase in costs of labor and capital causes more firms to leave the market and less ones to enter. Results are robust to the business cycle. We plan to assess the ability of the standard Hopenhayn (1992) heterogeneous firms' model in matching these stylized facts and better understand the fiscal policy transmission mechanism from the firm side.

Non-linear effects of fiscal policy

Joint with Hans Holter, Miguel Faria-e-Castro and Miguel Ferreira

Abstract: The literature on fiscal multipliers has been implicitly assuming the multipliers to be linear and symmetric. Using two independent datasets and two different empirical approaches, we present evidence that the fiscal multiplier is larger for increases in government spending than for contractions of the same absolute value. Using a third different dataset, which considers only consolidation episodes, we show that the larger the consolidation the smaller the multiplier. We make sense of this result using a neoclassical, life-cycle, incomplete markets model calibrated to match key features of the US economy, including the distribution of income and wealth, social security, taxes and debt. We find the multiplier to be monotonically increasing in the size of the shock and therefore asymmetric effects are only significant for large shocks. The relation between the multiplier and the size of the shock is explained by the impact of the shock on the percentage of constrained agents: increases (decreases) in government spending cause less (more) agents to be borrowing constrained. These agents have a smaller labor supply elasticity, so the smaller (larger) the share of constrained agents, the larger (smaller) the fiscal multiplier.

Relative Price Shocks and Non-Linearities in Business Cycle Accounting

Joint with Robert Kirkby and Francesca Loria

Abstract: The Great Recession motivated a surge in interest regarding the identification of mechanisms still lacking in our models that could provide a rationale for the events. Business accounting exercises were performed for large groups of countries, but virtually every single exercise was done using log-linearization techniques without any scrutiny of the quality of the approximations. In this paper we provide a simple test that allows the business cycle accounting practitioner to infer whether the log-linearization techniques are appropriate. Furthermore, the practice of deflating variables using variable specific deflators is also widespread but we show that doing so is theoretically inconsistent with the one-good model of the prototype economy and restricts the classes of models that the wedges can be mapped to, leading to different qualitative results than using just one deflator. That is the case of Brinca et al. (2016) who

conclude that for Spain, the great recession was an investment wedge event using a single deflator and Lopez and Garcia (2016) and Ohanian and Raffo (2013) who find it to be a labor wedge event, by using variable specific deflators. Finally, we introduce a set of non-linear routines to perform business cycle accounting using higher order and global methods when the log-linear approximation fails the proposed test, as it is the case for Spain for example.

PUBLISHED AND SUBMITTED WORK IN BIOSTATISTICS

- 2013** **“Tuberculosis screening and treatment compliance in HIV patients”**
 Joint with Viveiros, F. Margarida, M., Carvalho, A. and Duarte, R.
 Published in *Revista Portuguesa de Pneumologia (English Edition)*, 19(3),134-138
- 2012** **“Allergic Disease Severity and Relations”**
 Joint with Viveiros, F., Gonçalves, I., Lima, R., Duarte, R., Pascoal, I., Moura e Sá, J. and Aurora Carvalho.
 Published online in *World Allergy Organization Journal*, 2012, February; Sup(2), S94. (Conference proceedings)
- 2011** **“Study of the Mutational State of EGFR in Diagnostic Samples of NSCL – New Approach Methods”**
 Joint with Antunes, A., Campainha, S., Barroso, A., Conde, S., Neves, S., Machado, J.C. and Barbara Parente.
 Published in *Journal of Thoracic Oncology 2011, Volume 6, Issue 6, pp. S1495-S1496. (Conference proceedings)*.
- 2011** **“Epidemiology and Survival Analysis of Lung Cancer – 10 Years of Experience in a Portuguese Respiratory Reference Center”**
 Joint with Campainha, S., Antunes, A., Barroso, A., Conde, S., Neves, S., and Barbara Parente.
 Published in *Journal of Thoracic Oncology 2011, Volume 6, Issue 6, pp. S1431-S1432. (Conference proceedings)*.

COMPLEMENTARY EDUCATION

- 2016** **CEF2016 Workshop “(Not Only A Heterogeneous Agent) Economics Algorithmic Repository and toolkit: Econ-ARK”** ministered by Christopher Carroll, from the John Hopkins University and Nathan Palmer, from the Office of Financial Research, US Department of Treasury, in Bordeaux.
- 2014** **PhD course in Calibration and Structural Estimation of Macroeconometric Models** – ministered by Fabio Canova, from the European University Institute, in Florence.
- 2014** **Communication in Games, Theory and Experiments** – ministered by Indrajit Ray from the Department of Economics of the University of Birmingham, at Universidade Católica do Porto.
- 2014** **Applied Macroeconomics Research Workshop** – ministered by Per Krusell and Tobias Broer, from the IIES, Hans Holter and Svetlana Pachenko from the Department of Economics of the University of Uppsala, at Stockholm University.
- 2014** **Principles of Fiscal and Monetary Policy** – ministered by Pedro Teles, from the Bank of Portugal and Catholic University of Lisbon, in Faculty of Economics of Porto, Porto.
- 2013** **Flexible regression through Generalized Additive Models (GAMs). Biomedical applications using R** – ministered by Carmen María Cadarso-Suárez, Unit of Biostatistics - School of Medicine, University of Santiago de Compostela, at Instituto Superior de Saúde Pública da Universidade do Porto, Porto.
- 2013** **Understanding Clinical Trials** – ministered by Ana Azevedo, University of Porto, at Instituto Superior de Saúde Pública da Universidade do Porto, Porto.
- 2012** **The Science and Art of DSGE Modelling: A Course on Model construction, Calibration, Estimation and Policy Analysis** – ministered by Paul Levine, University of Surrey and Bo Yang, from the London Metropolitan University and University of Surrey, at Universidade do Minho, Escola de Economia e Gestao, Braga.

- 2009 Dynare Training Course** – ministered by Stephane Adjemian. from the Department of Economics, Universite du Main, at the European Central Bank
- 2009 PhD course in Financial Economics** – ministered by Ellen McGrattan, from the University of Minnesota, at the Department of Economics, University of Minnesota.
- 2008-09 Workshop in Labor Economics** – Yearly PhD course ministered by Jose Victor Rios Rull, at the Department of Economics, University of Minnesota
- 2008 PhD course in Risk Sharing and New Dynamic Public Finance** – ministered by Narayana Kocherlakota, University of Minnesota, at the Department of Economics - University of Oslo.
- 2008 Summer School in Bayesian Econometrics** – ministered by James Hamilton, University of California – San Diego, at the Escola de Economia e Gestão - Universidade do Minho, Braga.
- 2007 Summer School in Finance: Modern Dynamic Asset Pricing Models** – ministered by Pietro Veronesi, from the University of Chicago, at Universidade Nova de Lisboa
- 2007 Summer Course in Quantitative Methods in Macroeconomics and Policy Analysis** – ministered by Ellen McGratten, from the University of Minnesota, at the Escola de Economia e Gestão - Universidade do Minho, Braga.
- 2007 PhD Intensive Course in Growth Policy** – ministered by Philippe Aghion, from Harvard University, at the Stockholm School of Economics
- 2007 PhD mini-course in International Macroeconomics** – ministered by Timothy J. Kehoe, from the University of Minnesota, at the Norwegian School of Economics and Business Administration, Bergen
- 2007 PhD mini-course in Topics in Search Theory** – ministered by Susan Vroman and Jim Albrecht, from Georgetown University, at the Stockholm University.
- 2006 Intensive Course in Spatial Econometrics** – ministered by James LeSage from the Department of Finance and Economics, College of Business Administration, Texas State University, at the Faculty of Economics of the University of Coimbra.

LANGUAGE PROFFICIENCY

Portuguese	Native language
English	Excellent Proficiency, written and spoken § <i>Test of English as Foreign Language (TOEFL) score 290/300 (9/9/05).</i>
Spanish	Good Proficiency, written and spoken
French	Basic Proficiency, written and spoken

GRANTS & AWARDS

- 2015 “Adjustment in European Economies in the Wake of the Economic Crisis”, Workshop held by the Bank of Portugal with prizes to the best papers selected.**
- 2015 Post-Doctoral Studies Grant by the Foundation for Science and Technology**, Ministry of Science, Technology and Higher Education, Portuguese Government
- 2014 Jean Monnet Fellowship from the European Commission**, post-doctoral grant at the Robert Schumann Advanced Studies Institute, European University Institute, Florence.
- 2011 Research Grant from Handelsbanken**
- 2007 PhD Scholarship from the Foundation for Science and Technology**, Ministry of Science, Technology and Higher Education, Portuguese Government.

- 2006 Stipendium ur Stiftelsen Erik Joahn Ljunbergs Utbildningsfond (14/9/2006)
§ **SEK 100.000 for doktorandstudier vid Nationalekonomiska Institutionen**
- 2005 Portuguese Economists Association
§ **1st Prize for the Best Article in Economic Policy, I Contest of Themes in Economics**
– The Importance of a Pact (with Ruben Branco)

INVITED TALKS AND SEMINARS

- 2018 UC Porto, U Nevada-Reno, U California-Irvine, Stanford U
- 2017 FEUC, CEF.UP, U Victoria-Wellington, Humboldt U, U Aveiro, Bank of Spain, U Zurich, Birbeck College, NYU, U Minnesota, U Penn, U Coimbra, U Minho
- 2016 UBI, CEF.UP, CEFAGE, GPEARI, U Madeira, U Minho, U Coimbra
- 2015 U Minho, FEUC, UCP – Porto, CEF.UP, Aachen RWTH, NovaSBE, Federal Reserve Board, CEF.UP
- 2014 AU Paris, CREATES, Humboldt U, FEUC, UCP – Porto, IFN, METU
- 2013 FEUC, U Minho.

CONFERENCE PARTICIPATIONS

- 2018 **“29th Society for Economic Dynamics Annual Meeting”, (Fiscal Consolidation Programs and Income Inequality)**, with Hans Holter, Miguel Ferreira, Francesco Franco and Laurence Malafry, in Mexico City, June 28th-30th.
- 2018 **“Royal Economic Society 2018 Annual Conference”, (Non-linear effects of Fiscal Policy)**, with Miguel Faria-e-Castro, Hans Holter and Miguel Ferreira, at the University of Sussex, March 26th to 28th.
- 2017 **“Winners and Losers after the Euro-Crisis - ADEMU” (Fiscal Consolidation Programs and Income Inequality)**, with Hans Holter, Miguel Ferreira, Francesco Franco and Laurence Malafry, at the European University Institute, in Florence, November 16th to 17th.
- 2017 **“Annual Meeting of the Association of Southern-European Economic Theorists” (Fiscal Consolidation Programs and Income Inequality)**, with Hans Holter, Miguel Ferreira, Francesco Franco and Laurence Malafry, in Argel, October 27th to 29th.
- 2017 **“6th Portuguese-Brazilian Macroeconomic Meetings - LubraMacro” (Fiscal Consolidation Programs and Income Inequality)**, with Hans Holter, Miguel Ferreira, Francesco Franco and Laurence Malafry, in Porto de Galinhas, September 14th to 16th.
- 2017 **“Rethinking Fiscal Policy - ADEMU” (Fiscal Consolidation Programs and Income Inequality)**, with Hans Holter, Miguel Ferreira, Francesco Franco and Laurence Malafry, in Argel, September 22nd to 23rd.
- 2017 **“70th European Meeting of the Econometric Society” (Fiscal Consolidation Programs and Income Inequality)**, with Hans Holter, Miguel Ferreira, Francesco Franco and Laurence Malafry, in Lisbon, August 21st to 25th.
- 2017 **“32st Annual Congress of the European Economic Association” (Government Demand and Firm Dynamics)**, with Miguel Ferreira and Francesco Franco, in Lisbon, August 21st to 25th.
- 2017 **“10th Meetings of the Portuguese Economic Journal” (Fiscal Consolidation Programs and Income Inequality)**, with Hans Holter, Miguel Ferreira, Francesco Franco and Laurence Malafry, in Vila Real, July 7rd-9th.

- 2017 **“Mid-West Macroeconomics Meeting 2017” (Fiscal Consolidation Programs and Income Inequality)**, with Hans Holter, Miguel Ferreira, Francesco Franco and Laurence Malafry, in Baton Rouge, May 19th to 21st.
- 2017 **“International Association for Applied Econometrics 2017” (Fiscal Consolidation Programs and Income Inequality)**, with Hans Holter, Miguel Ferreira, Francesco Franco and Laurence Malafry, in Sapporo, June 26th to 30th.
- 2017 **“23nd International Conference on Computing in Economics and Finance” (Fiscal Consolidation Programs and Income Inequality)**, with Hans Holter, Miguel Ferreira, Francesco Franco and Laurence Malafry, in New York, June 28th to 30th.
- 2017 **“Royal Economic Society Symposium of Junior Researchers” (Fiscal Consolidation Programs and Income Inequality)**, with Hans Holter, Miguel Ferreira, Francesco Franco and Laurence Malafry, in Bristol, UK, April 13th.
- 2016 **“5th Portuguese-Brazilian Macroeconomic Meetings - LubraMacro” (Invited discussant for Survey Design and Forecast Accuracy, by R. Giacomini, W. Gaglianone, J. Issler and V. Skreta)**, in Vila Real, September 10th.
- 2016 **“31st Annual Congress of the European Economic Association” (On Identification Issues in Maximum Likelihood Estimation of Business Cycle Accounting Models)**, with Nikolay Iskrev and Francesca Loria, in Geneva, August 23th to 29th.
- 2016 **“9th Meetings of the Portuguese Economic Journal” (Accounting for Business Cycles)**, with V.V. Chari, P. Kehoe, and E. McGrattan, in Coimbra, July 3rd-6th.
- 2016 **“International Association for Applied Econometrics 2017” (On Identification Issues in Maximum Likelihood Estimation of Business Cycle Accounting Models)**, with Nikolay Iskrev and Francesca Loria, in Milan, June 22nd to 25th.
- 2016 **“Transmission and Effectiveness of Macroprudential Policies” (Invited discussant for “Amortization requirements and household indebtedness - an application to Swedish style mortgages”, by Isiah Hull)**, in Lisbon, July 4th.
- 2016 **“22nd International Conference on Computing in Economics and Finance” (On Identification Issues in Maximum Likelihood Estimation of Business Cycle Accounting Models)**, with Nikolay Iskrev and Francesca Loria, in Bordeaux, June 26th to 28th.
- 2016 **“2nd HenU / INFER Workshop on Applied Macroeconomics” (On Identification Issues in Maximum Likelihood Estimation of Business Cycle Accounting Models)**, with Nikolay Iskrev and Francesca Loria in Kaifeng, March 18th, 19th.
- 2016 **“2nd HenU / INFER Workshop on Applied Macroeconomics” (Accounting for Business Cycles with Wedges)**, with V.V. Chari, Patrick Kehoe and Ellen McGrattan, in Búzios, in Zhangzhou, March 18th-19th.
- 2015 **“COEURE Workshop on Fiscal and Monetary Policies after the Crisis” (Invited speaker: Business Cycle Accounting in OECD Countries: Lessons from the Great Recession)**, with Francesca Loria, in Florence, EUI, June 5th.
- 2015 **“4th Portuguese-Brazilian Macroeconomic Meetings - LubraMacro” (Invited speaker: Accounting for Business Cycle with Wedges)**, with V.V. Chari, Patrick Kehoe and Ellen McGrattan, in Búzios, September 10th-12th.
- 2015 **“30th Annual Congress of the European Economic Association” (Fiscal Multipliers in the 21st Century)**, with Hans Holter, Per Krusell and Laurence Malafry, in Mannheim, July 3rd-6th.
- 2015 **“9th Meetings of the Portuguese Economic Journal” (Fiscal Multipliers in the 21st Century)**, with Hans Holter, Per Krusell and Laurence Malafry, in Terceira, Azores, July 3rd-6th.
- 2015 **“38th Annual NBER Summer Institute” (Fiscal Multipliers in the 21st Century)**, with Hans Holter, Per Krusell and Laurence Malafry, in Cambridge, Massachusetts, July 6th-24th.

- 2015 **“26th Society for Economic Dynamics Annual Meeting” (Fiscal Multipliers in the 21st Century)**, with Hans Holter, Per Krusell and Laurence Malafry, at the University of Warsaw, June 25th-27th.
- 2015 **“Carnegie-Rochester-NYU conference on Public Policy 2015” (Fiscal Multipliers in the 21st Century)**, with Hans Holter, Per Krusell and Laurence Malafry, at the Stern School of Business, New York University, April 24th-25th.
- 2015 **“Hoover Institution Handbook of Macroeconomics Volume 2 Conference”, (Invited speaker: Accounting for Business Cycles with Wedges)**, with Varadarajan Chari, Patrick Kehoe and Ellen McGrattan, in Stanford, April 9th-11th.
- 2015 **“Bank of Portugal Workshop: Adjustment in European Economies in the Wake of the Economic Crisis”, (Fiscal Multipliers and Wealth Heterogeneity in the XXI Century)**, with Hans Holter, Per Krusell and Laurence Malafry, in Lisbon, January 16th.
- 2014 **8th Meetings of the Portuguese Economic Journal”, (Fiscal Multipliers: Does Inequality Matter?)**, with Hans Holter, Per Krusell and Laurence Malafry, in Braga, July 4th to 5th.
- 2014 **“International Economic Association 17th World Congress”, (Invited speaker: Fiscal Multipliers: Does Inequality Matter?)**, with Hans Holter, Per Krusell and Laurence Malafry in Amman, June 6th to 10th.
- 2013 **“5th World Congress on Sleep Medicine”, (The impact of benzodiazepine use in nocturnal O2 saturation of OSAS patients)**, with Marta Gonçalves, Ana Antunes, Alberta Leão e Susana Maia in Valencia, September 30th.
- 2013 **“7th Annual Meeting of the Portuguese Economic Journal”, (Distortions in the Neoclassical Growth Model: A Cross Country Analysis)**, in U Beira Interior, Covilhã, July 8th-9th.
- 2013 **“Public Economic Theory 2013”, (Distortions in the Neoclassical Growth Model: A Cross Country Analysis)**, in U Católica de Lisboa, Lisbon, July 5th-7th.
- 2012 **“European Network for Training in Economics conference”, (Monetary Business Cycle Accounting for Sweden)**, in Universidad Autonoma de Barcelona, Barcelona, February, 9th 2012.
- 2011 **“14th World Conference on Lung Cancer”, (Study the mutational state of EGFR in diagnostic samples of NSCLC – New approach methods)**. Joint with Antunes, A., Campainha, S., Castro, A., Barroso, A., Conde, S., Neves, S. and Parente, B. in 3rd -7th July, Amsterdam.
- 2011 **“14th World Conference on Lung Cancer”, (Epidemiology and survival analysis in lung cancer – 10 years of experience in a Portuguese respiratory reference center)**. Joint with Campainha, S., Antunes, A., Barroso, A., Conde, S., Neves, S. and Parente, B. in 3-7th July, Amsterdam.
- 2010 **“International Symposium on Forecasting”, (Consumer Confidence as a Predictor of Consumption Spending: Evidence for the US and Euro-Area)**, joint with Stephane Dees, San Diego, June.
- 2010 **“European Respiratory Society Annual Congress”, (Allergic disease severity: Mono vs polisensitization)**, joint with Viveiros, F., Gonçalves, I., Antunes, A., Lima, R., Duarte, R. and Carvalho, A.), Barcelona.
- 2009 **“European Respiratory Society Annual Congress”, (EGFR – A useful biomarker?)**, joint with Antunes, A., Gomes, J. Lima, C., Machado, J. and Parente, B. in Vienna, 12-16 September.
- 2009 **“XXXVI Reunión Annual SOGAPAR y XXVII Galaicoduriense”, (Fracção Exalada do Óxido Nítrico eBroncoprovocação – O que podemos esperar)**, joint with Antunes, A., Gomes, J., Viveiros, F., Loureiro, A., Lima, R., Centeno, C. and Guimarães, M., in Santiago de Compostela, 20-21 November, 2009.

- 2009 “**XXXVI Reunión Annual SOGAPAR y XXVII Galaicoduriense**”, (**DPOC – Adptação psicológica à doença**), joint with Antunes, A., Gomes, Guimarães, M., Pascoal, I. and Taveira, in Santiago de Compostela, 20-21 November.
- 2009 “**16º Congresso de Pneumologia do Norte**”, (**Feno e Asma de Exercício – Correlação?**), with Viveiros, F. Antunes, A., Gomes, J., Costa, L., Guimarães, M. and Centeno, C., in Porto, 19-20 March.
- 2008 “**XXIV Congresso de Pneumologia**”, (**FeNO e PC20 – Que esperar?**), with Antunes, A., Gomes, J., Guimarães, M., Costa, L., Machado, J. and Parente, B., in Porto, 5-8th December. Published in Revista Portuguesa de Pneumologia, volume XIV, suplemento IV, December.
- 2006 “**How to manage your budget without problems**” Seminar, C.M. Palmela
Invited Speaker (*Analysis of Consumer Indebtedness in Portugal*), with Sara Magalhães, in Biblioteca do Pinhal Novo, 16th of January.
- 2006 “**Equality and Social Inclusion in the 21st Century: Developing Alternatives - An international multi-disciplinary conference**”, **School of Sociology & Social Policy – Queen’s University Belfast**. Conference Speaker (*Gender Specific Effects, Attitudes and Strategies in a Context of Overindebtedness Risk*), with Sara Magalhães, in Wellington Park Hotel, Belfast, 3rd of February.
- 2006 “**7th Inter-University Graduate Conference: Challenging the Boundaries in the Social Sciences, Centre for Research in the Arts, Social Sciences and Humanities**”, **University of Cambridge**. *The link between norms, values and economic outcomes. An Evolutionary approach* (poster), in Cambridge, 20th May.
- 2006 “**International Symposium on Economic Theory, Policy and Applications**”, Athens Institute for Education and Research – Conference Speaker (*Are Kant’s Categorical Imperative and Instrumental Rationality Compatible? The case for the Prisoner’s Dilemma*), Athens, August 21st to 23rd.

SCIENCE OUTREACH AND MEDIA PARTICIPATIONS

- 2016-18 “**Financial Literacy with Professor Brinca and Rick Fazerer**”, financial literacy project, focusing on young university students, not necessarily from business or economics. Ric Fazerer is a Portuguese youtuber with 539 309 subscribers <https://www.youtube.com/user/RicFazerer>. First four videos available at:
<https://www.facebook.com/santandertotta.pt/videos/1462743860417641/>
<https://www.facebook.com/santandertotta.pt/videos/1538479169510776/>
<https://www.facebook.com/santandertotta.pt/videos/2123113021047385/>
<https://www.facebook.com/santandertotta.pt/videos/2135800929778594/>
focusing on the government budget deficit and GDP and economic growth, with a total combined number of over 200k views.
8 more videos forthcoming, focused on the topics of: GDP and Growth; International Trade; Banking System and Monetary Policy.
- 2017 “**Conversas Soltas**”, (**How can the banking sector improve financial literacy**), round table promoted by Banco Popular and lead by the national newspaper “Público”, published in the daily edition in 2017/10/27.
- 2016 “**Noite Europeia dos Investigadores**”, (**Economics in Everyday Life**), science outreach event coordinated by the National Museum of Natural History and Science of the University of Lisbon, in Lisbon, September 30th.