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# SPILLOVERS

BANCO DE PORTUGAL
EUROSYSTEM

Research in Economics at Banco de Portugal • Biannual • Year IX • July 2021

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# Overview

The beginning of July was marked by a major announcement by the ECB: the finalization of the strategy review. The new strategy provides a solid framework for monetary policy decisions in the future, aimed at fulfilling all lengths of the ECB's mandate. You can find the details at the ECB and Banco de Portugal's websites.

The strategy review is a poster child of the interaction between policy and research. Let me highlight some important features of this interaction.

During the 18 months of the review, 13 workstreams were set up aiming to "leave no stone unturned", in the famous words of President Lagarde. Representatives of the Eurosystem worked intensively in each of these workstreams, using results from state of the art research, both old and new. Throughout this process, novel research was also produced. All these papers will soon be published by the ECB. At the frontier, research does not usually yield uncontroversial results. Time was of the essence to allow confronting different ideas and maturing novel insights. Through time these formed the backbone of the policy conclusions.

Collaboration was a key element of the process. This principle, which is so vital to advance the research frontier, contributed to strengthen the conclusions of the strategy review. The collaboration spanned all geographies within the Eurosystem, many fields of research – not restricted to economics – and many people, both inside and outside the Eurosystem. Listening to stakeholders outside the Eurosystem was an important feature of the review and will remain a cornerstone of our activities in the future.

The questions that were raised and answered throughout the 18 months of the review process were two-way avenues between policy and research. On the one hand research raised awareness to new issues and gave conditional answers on many topics which were central to the debate. On the other hand, policy discussions also raised new questions and had to build concrete and timeless proposals around the many insights unveiled in the process. In this sense, policy and research worked always in tandem.

Banco de Portugal was an active participant in these discussions. The perspectives of the staff, which were matured throughout these months, were compiled in an e-book which you can find in this link. This e-book is an excellent example of how research and policy are intertwined and I invite you all to read it.

**Nuno Alves**
**Head of the Economics and Research Department**

# A word from Governor Mário Centeno

All economists would agree that their discipline is first and foremost about allocating scarce resources. The means to perform such a complex task vary, but prices have a special role as they can act as powerful signals of the areas of economic activity where scarcity is more pronounced. They have stabilising properties in the sense that higher prices alleviate demand. Likewise, in the labour market, higher wages increase labour supply by attracting more workers, limiting additional wage rises.

There are circumstances where prices provide limited information about relative scarcity. For instance, in a market with barriers to entry, where a potential entrant would have to spend a large amount of resources to start activity, competition would be limited and favour incumbents, which could then charge higher prices. Another example would be research and development. Researchers rely on discoveries made by others, sometimes working in non-related fields. Hence, the more society invests in such activities, the more benefits accrue to all. This "positive externality" implies that market prices would not fully reflect the social value of research and development; prices would be too low, resulting in a suboptimal incentive. The classical remedy for this market failure would be a public subsidy.

Let me expand a little bit on this aspect because it speaks directly to me as a researcher. Most central banks in advanced economies, including Banco de Portugal, have for a long time harboured research in economics and other areas related to their mission. This is perhaps a recognition of the market underinvestment in research in those fields, as in many instances it is not immediately clear what the concrete policy application of a certain method or theory will be. Until, sometimes, a new and unexpected event occurs.

Yes, you probably guessed, the pandemic shock is unfortunately such an event. When it struck, Banco de Portugal had to come up with new methods, models and data to properly address the urgent policy challenges. That could only be done because some of the new methods and models were adaptations of previous scientific work, sometimes made for completely different purposes. And also because people accustomed to scientific inquiry are better equipped to use those occasions as opportunities.

The notion that research has an impact on people's lives is sometimes overlooked. In my previous experience as Finance Minister, I relied many times on research by other economists and myself when deciding on policy. While it was difficult to know whether a particular measure would have its intended effects, research often gave me the concepts and discipline I needed to make that judgment. The stakes were high because such measures affected the lives of people and future generations. My experience as Governor of Banco de Portugal is no different in this respect. The general lesson is simple to summarize: if it takes two to tango, in economics the two are good data and good economic analysis.

Over the years Banco de Portugal developed a vast body of research in various branches of economics and finance. Beyond the obvious fields of monetary economics and macroeconomics, we have been active, for instance, in labour economics, financial economics, corporate finance, and econometrics. In each of these fields, specialists debate and question acquired wisdom, as is typical of a research environment, in conferences and seminars. I see research at Banco de Portugal as a means of ensuring that our day-to-day needs are met with the best analytical tools while keeping our human resources ready for the challenges that are bound to happen. This is why it is so important to keep the public abreast of our research activities and their purpose.

Recently, we started sharing microdata to foster research on the Portuguese economy. Banco de Portugal manages rich databases, and has for a long time used them in internal advice and research. The time came when we felt prepared to make such data available to the research community. We devised confidentiality and access rules and set up the Banco de Portugal Microdata Research Laboratory (BPLIM). We expect that top researchers from around the world uncover and explain new and interesting facts about our economy, including those related to public policies. Some results are starting to surface, but more will come over the next years.

We have strived to channel our wealth of diverse knowledge and information into high-quality policy advice, and will continue to do so in a rapidly changing environment. In this regard, let me just mention the recent publication of the e-book "*Perspectives on the ECB's monetary policy strategy review*", authored by our researchers, economists and lawyers. This piece lays down and discusses most of the questions addressed in the ECB's strategy review concluded on 7 July 2021. Without necessarily proposing definitive answers, it dissects the arguments and exposes their pros and cons. The unifying feature of this work is, I would submit, its adherence to a carefully developed in-house intellectual framework, enriched by long-lasting and frequent interactions with our peers in the Eurosystem. The same intellectual framework was what assisted me in the discussions within the Governing Council during the strategy review.

This edition of Spillovers showcases our research activities of the last six months. We are already preparing a new set of initiatives. I invite you to keep an eye on them, or simply browse a fresh edition of this newsletter when January comes.

In every issue, we ask experts to briefly present and discuss two papers written by staff members. In this issue, the guest is Prof. Pedro Brinca.

**Pedro Brinca** is Assistant Professor at Nova School of Business and Economics. He is a macroeconomist and his research focuses on the interplay between macro and micro heterogeneity, in topics related to optimal taxation, fiscal policy and structural change. His recent research focuses on the role of income risk in explaining cross-country differences in fiscal multipliers.

# Featured published paper

**Lourenço, Nuno and António Rua. 2021. "The Daily Economic Indicator: tracking economic activity daily during the lockdown", *Economic Modelling*.**

The developments of the COVID-19 pandemic have shown that there is a need for policymakers to be able to quickly react to changes in the economic environment. This means that standard statistics, with aggregates such as GDP that are typically released with a lag and at low frequency, might prove insufficient to provide policy makers with the evidence they need to act.

In this paper, Nuno Lourenço and António Rua go to great lengths to provide policy makers with an economic activity indicator – the Daily Economic Indicator– that is available in real time and is informative regarding the developments of a key policy variable – GDP – only available at lower frequencies and with a lag.

There are naturally other attempts in the literature whose goal is the same, but two key characteristics that sets this work apart is the fact that the indicator is available at a daily frequency and that there is no smoothing involved. This means that the DEI is especially suited for event studies that evolve at a very high frequency, being able to identify sudden changes in economic activity in a much timelier manner.

The authors look at different series available at the daily frequency and identify the five series with the strongest co-movement with GDP. These consist of data on card-based payments, road traffic of heavy commercial vehicles, cargo and mail landed, electricity consumption and natural gas consumption. The data goes from January, 1st, 2014, to April 30th, 2020.

The Daily Economic Indicator is a latent factor, estimated from a factor model composed of the five series referred before. *Natural gas consumption* carries the highest weight in the latent factor (0.27), followed closely by *road traffic of heavy commercial vehicles* (0.25), *electricity consumption* (0.18), *card-based payments* (0.17) and *cargo and mail landed* (0.15). The variance explained by the daily economic indicator amounts to 53%. The authors also had to deal with some additional technical hurdles that come with the fact that they were using daily data, namely intra-week seasonality and calendar effects. The results are quite impressive as the indicator is able to capture the slowdown in the first quarter of 2020, and in particular, a very sharp drop following the lockdowns on March 18th. Most importantly, and not included in the paper, the indicator shows a drop in economic activity in the second quarter that is of the same magnitude of the one observed in reality – the highest decline in economic activity in Portugal in its modern history.

Even though the sample used for the publication on *Economic Modelling* goes up only to April 30th, the authors continue to estimate the DEI and disseminate it through the Bank of Portugal publications. A quick search on the internet shows just how much of an impact it had so far, with hundreds of references and most news periodicals in Portugal making regular references to it.

Also, even though this is not mentioned by the authors, I believe this indicator can be especially useful in identifying the economic impacts of specific events that are short-lived in nature. Under such high frequency, a simple difference estimator could, in some cases, be enough to identify causal effects.

# Featured article from *Banco de Portugal Economic Studies*

**Félix, Sónia, Pedro Moreira and Nuno Silva. 2021. "On the measurement of Portuguese firms' fixed operating costs", *Banco de Portugal Economic Studies*.**

In this work, the authors measure fixed operating costs at the firm level and they use administrative data from the *Central Balance Sheet Database*, covering the population of Portuguese non-financial corporations. The importance of operating fixed costs in the literature – costs that do not change with the amount of goods and/or services produced or sold by the firm – is clearly motivated by the authors.

First, fixed operating costs amplify the effect of output shocks on firm's profitability. Second, to the extent that these are exogenously set by technology standards of the industry in which the firm operates, it will be also a key determinant of financial leverage. Third, it is also closely determined by labor market frictions where rigid labor markets constitute an obstacle for firms to adjust to economic shocks.

Naturally, underlining all the avenues of research outlined above, is the base question of how to estimate firms' operating fixed costs. There are several alternatives that have been used and the authors use a regression-based approach. They regress individual firm operation costs on lagged operation costs, sales and lagged sales. The measure of firm-level fixed operating costs is then given by setting contemporaneous sales to zero and adding up the other observables, multiplied by their respective regression coefficients.

The first finding is that these costs are approximately 15% of firms' sales, despite substantial heterogeneity. This is close in line with previous studies performed with Compustat data for the US – about 17%. One dimension that explains part of the large heterogeneity found is size. Smaller firms, on average, have higher fixed operation costs, representing on average about 18% of their sales, against only 13% for larger firms. This is consistent with the existence of economies of scale but also with alternative explanations, such as the possibility of larger firms resorting more to outsourcing which gives them a higher degree of flexibility in adjusting to shocks.

Second, the authors look at the fixed operating costs by sector of activity. Unsurprisingly, *Accomodation and food services* is the sector with the highest fixed costs to sales ratio. This is a sector that is characterized by large upfront investments in equipment and infrastructure and with a low ability to adjust operation costs to demand fluctuations. On the other end, *Wholesale and retail trade* is the sector with a lower ratio of fixed costs to sales. Overall, sectors more related to services and with a higher level of capital intensity tend to rank higher in terms of this measure.

The bulk of economic policies designed to support the economy by the Portuguese government in face of the current pandemic have relied much more on support schemes for payment deferrals than direct aid. This has important implications as increasing indebtedness and associated operating fixed costs are bound to become more important and a key dimension affecting the shape of recovery, as most payment deferral schemes are being phased out.

# Recently published

Our economists publish in a wide range of economic and finance journals and scholarly books.

## Mathematical and Quantitative Methods

- Lourenço, Nuno and António Rua. 2021. "The Daily Economic Indicator: tracking economic activity daily during the lockdown", *Economic Modelling*, vol. 100, 105500. JEL Codes: C38, C22, E32.
- Zsurkis, Gabriel, Nicolau, João, Rodrigues, Paulo M.M. 2021. "The expected time to cross a threshold and its determinants: a simple and flexible framework". *Journal of Economic Dynamics and Control*, 122: 104047. JEL Codes C32, C41, C51, E63.

**Forthcoming**

- Demetrescu, Matei and Paulo M.M. Rodrigues. 2021, "Residual-augmented IVX predictive regression", *Journal of Econometrics*. JEL Codes: C12, C22, R31.
- Balboa, M., Rodrigues, P.M.M., Rubia, A. and Taylor, A.M.R. 2021, "Multivariate Fractional Integration Tests allowing for Conditional Heteroskedasticity with an Application to Return Volatility and Trading Volume." *Journal of Applied Econometrics*. JEL Codes: C12, C22, G12, G17.

# Macroeconomics and Monetary Economics

- Alves, Nuno, Diana Bonfim and Carla Soares. 2021. "Surviving the perfect storm: The role of the lender of last resort". *Journal of Financial Intermediation*, Volume 47, 100918. JEL Codes: E44, E5, G21.
- Cavalcanti, Tiago, Georgi Kocharkov and Cezar Santos. 2021. "Family Planning and Development: Aggregate Effects of Contraceptive Use". *The Economic Journal*, Volume 131, Issue 634, Pages 624–657. JEL Codes: E24, I15, J13, O11.

**Forthcoming**

- Antunes, António, and Valerio Ercolani. 2021. "Health and Earnings: a General Equilibrium Evaluation." *Research in Economics*. JEL Codes: D91, E21, I14, I15.
- Cabral, Inês Cunha, Pedro Pires Ribeiro and João Nicolau. 2021. "Changes in inflation compensation and oil prices: short-term and long-term dynamics.", *Empirical Economics*. JEL Codes: E52, Q43, C51.

# International Economics

- Cabral, Sónia, Pedro S. Martins, João Pereira dos Santos and Mariana Tavares. 2021. "Collateral Damage? Labour Market Effects of Competing with China - at Home and Abroad". *Economica*, 88(350): 570-600. JEL Codes: F16, F14, F66, J31.

**Forthcoming**

- Caliendo, Lorenzo, Luca David Opromolla, Fernando Parro, and Alessandro Sforza. 2021. "Goods and Factor Market Integration: A Quantitative Assessment of the EU Enlargement." *Journal of Political Economy*. JEL code: F22.
- Esteves, Paulo S., Miguel Portela and António Rua. 2021. "Does Domestic Demand Matter for Firms' Exports?", *Open Economies Review*. JEL Codes: F14, F41, C23, C26, D21, D22.

# Financial Economics

- Benlemlih, Mohammed, Jingwen Ge, and Sujiao Zhao. 2021. "Undervaluation and Non-Financial Disclosure: Evidence from Voluntary CSR News Releases." *Journal of Business Finance & Accounting*, 48(5-6): 785-814. JEL Codes: G30, G32, D03, D22.
- Patrice Fontaine and Sujiao Zhao. 2021. "Suppliers as financial intermediaries: Trade credit for undervalued firms". *Journal of Banking & Finance*, 124: 1-19. JEL Codes: G3, G30, G32, D2, D21.

# Labor and Demographic Economics

**Forthcoming**

- Hartog, Joop, Pedro Raposo, and Hugo Reis. 2021. "Fluctuations in the wage gap between vocational and general secondary education: lessons from Portugal" *Journal of Population Economics*. JEL Codes: J31, I26.

# New titles in the *Working Papers* series

Technical working papers intended for publication in leading finance and economic journals. Find here the complete list of working papers.

**Risk shocks, due loans, and policy options: When less is more!** • José R. Maria, Paulo Júlio and Sílvia Santos

We use a dynamic stochastic general equilibrium model endowed with a complex banking system–in which due loans, occasionally binding credit restrictions, a cost of borrowing channel, and regulatory (capital and impairment) requirements coexist–to analyze the performance of various policy options impacting impairment recognition by banks. We discuss how looser or tighter policy designs affect output and welfare–both in the steady state and alongside dynamics–and the main driving forces that lie beneath the effects. The holding cost of due loans, restrictions to credit, dividend strategy, and the cure rate are key components of the driveshaft propelling policies to outcomes. We find that looser policies outperform tighter ones only if reflected into higher capital buffers (extra income is retained and not distributed as dividends) and for sufficiently low values of the holding cost. Higher cure rates increase the effectiveness of looser policies–they dominate for a wider range of holding costs–by raising the benefits of delaying impairment recognition. A policy targeting impairment recognition seems to take the upper edge due to its combined steady-state and business-cycle effects, but a policy that allows the regulatory impairment recognition to respond to the cycle is more effective from a business-cycle stabilization standpoint. Occasionally binding credit restrictions boost the effectiveness of looser policies during recessions due to its asymmetric effects over the cycle, pushing the mean output upwards.

**Assessment of the effectiveness of the macroprudential measures implemented in the context of the Covid-19 pandemic** • Diogo Serra, Vítor Oliveira and Lucas Avezum

In this paper we assess the effectiveness of the macroprudential capital buffers' release on loans granted to households, implemented in the context of the COVID-19 pandemic. We obtain causal estimates by exploring differences in the availability of regulatory buffers prior to the pandemic shock among European countries and accounting for the time-varying effect of unobservable confounding variables with the synthetic control method. We find evidence that the buffers releases contributed, on average, to mitigate the procyclicality of credit to households, specifically for house purchase and for small businesses purposes. For the aggregate household lending, we find that the average treatment effect for both the release of the CCyB and that of the SyRB were positive. However, the results suggest that, for credit associated to small businesses purposes, only the release of the CCyB had an effect.

**Institutional Arrangements and Inflation Bias: A Dynamic Heterogeneous Panel Approach** • Ioannis Lazopoulos, Vasco Gabriel and Diana Lima

The paper investigates whether the institutional arrangements that determine the conduct of monetary policy and prudential regulation and supervision of the banking system influence policymakers' actions in pursuing their designated mandates. Employing recently developed dynamic heterogeneous panel methods and using data for 25 industrialised countries from 1960 to 2018, we empirically assess whether central banks' main objective of inflation stability is compromised when assigned with both policy mandates manifested as inflation bias. Our results show that, once we appropriately control for relevant policy and institutional factors, the separation of prudential policy and monetary policy does not have a significant effect on inflation outcomes.

**Spectral decomposition of the information about latent variables in dynamic macroeconomic models** • Nikolay Iskrev

In this paper, I show how to perform spectral decomposition of the information about latent variables in dynamic economic models. A model describes the joint probability distribution of a set of observed and latent variables. The amount of information transferred from the former to the latter is measured by the reduction of uncertainty in the posterior compared to the prior distribution of any given latent variable. Casting the analysis in the frequency domain allows decomposing the total amount of information in terms of frequency-specific contributions as well as in terms of information contributed by individual observed variables. I illustrate the usefulness of the proposed methodology with applications to two DSGE models taken from the literature.

**Extensions to IVX methods of inference for return predictability** • Paulo M.M. Rodrigues, A.M. Robert Taylor, Iliyan Georgiev and Matei Demetrescu

Predictive regression methods are widely used to examine the predictability of (excess) returns on stocks and other equities by lagged macroeconomic and financial variables. Extended IV [IVX] estimation and inference has proved a particularly valuable tool in this endeavour as it allows for possibly strongly persistent and endogenous regressors. This paper makes three distinct contributions to the literature. First we demonstrate that, provided either a suitable bootstrap implementation is employed or heteroskedasticity-consistent standard errors are used, the IVX-based predictability tests of Kostakis et al. (2015) retain asymptotically pivotal inference, regardless of the degree of persistence or endogeneity of the (putative) predictor, under considerably weaker assumptions on the innovations than are required by Kostakis et al. (2015) in their analysis. In particular, we allow for quite general forms of conditional and unconditional heteroskedasticity in the innovations, neither of which are tied to a parametric model. Second, and associatedly, we develop asymptotically valid bootstrap implementations of the IVX tests under these conditions. Monte Carlo simulations show that the bootstrap methods we propose can deliver considerably more accurate finite sample inference than the asymptotic implementation of these tests used in Kostakis et al. (2015) under certain problematic parameter constellations, most notably for their implementation against one-sided alternatives, and where multiple predictors are included. Third, under the same conditions as we consider for the full-sample tests, we show how sub-sample implementations of the IVX approach, coupled with a suitable bootstrap, can be used to develop asymptotically valid one-sided and two-sided tests for the presence of temporary windows of predictability.

**The Role of Macroprudential Policy in Times of Trouble** • Ivan De Lorenzo Buratta, Luisa Corrado, Germana Corrado and Jagjit S. Chadha

We develop a DSGE model with heterogeneous agents, where savers own firms and riskpricing banks while borrowers require loans to establish their consumption plans. The bank lends at an external finance premium (EFP) over the policy rate as a function of the asset price, housing collateral, the demand for loans and their perceived riskiness. We suggest that the close relationship between aggregate consumption and house prices is related to collateral effects. We also outline the role of the EFP in determining consumption spillovers between borrowers and lenders. We solve the model with occasionally-binding constraints to examine the redistributive role of macro-prudential policies in terms of welfare. Countercyclical deployment of the loan-to-value constraint placed on borrowers can limit the scale of the downturn from a negative house price shock. Furthermore, when the zero lower bound acts to constrain monetary policy, looser macroprudential policies can act as an effective substitute for lower policy rates. Finally, we show that co-ordinated macroprudential and fiscal policies can also attenuate the welfare losses that arise from uncertainty banks may face about default probabilities.

**Multivariate Fractional Integration Tests allowing for Conditional Heteroskedasticity with an Application to Return Volatility and Trading Volume** • Paulo M.M. Rodrigues, A.M. Robert Taylor, Antonio Rubia and Marina Balboa

We introduce a new joint test for the order of fractional integration of a multivariate fractionally integrated vector autoregressive [FIVAR] time series based on applying the Lagrange multiplier principle to a feasible generalised least squares estimate of the FIVAR model obtained under the null hypothesis. A key feature of the test we propose is that it is constructed using a heteroskedasticity-robust estimate of the variance matrix. As a result, the test has a standard 2 limiting null distribution under considerably weaker conditions on the innovations than are permitted in the extant literature. Specifically, we allow the innovations driving the FIVAR model to follow a vector martingale difference sequence allowing for both serial and crosssectional dependence in the conditional second-order moments. We also do not constrain the order of fractional integration of each element of the series to lie in a particular region, thereby allowing for both stationary and non-stationary dynamics, nor do we assume any particular distribution for the innovations. A Monte Carlo study demonstrates that our proposed tests avoid the large over-sizing problems seen with extant tests when conditional heteroskedasticity is present in the data. We report an empirical case study for a sample of major U.S. stocks investigating the order of fractional integration in trading volume and different measures of volatility in returns, including realized variance. Our results suggest that both return volatility and trading volume are fractionally integrated, but with the former generally found to be more persistent (having a higher fractional exponent) than the latter, when more reliable proxies for volatility such as the range or realized variance are used.

**Optimal Social Insurance: Insights from a Continuous-Time Stochastic Setup** • João Amador and Pedro G. Rodrigues

This paper focuses on the determinants of the optimal level of social insurance, thus contributing to explain its cross-country variation. In a continuous-time stochastic endogenous growth setup, it is a form of public insurance against idiosyncratic shocks affecting the income, as well as the dependency ratio of an individual household. Such shocks include, for example, illness, disability, unemployment, or changes in the number of infants and elderly in care. We conclude that a higher average dependency ratio and a higher covariance between technological and dependency shocks both decrease the optimal amount of social insurance. In addition, a higher variance of technological shocks does not affect optimal decisions, while a higher variance of dependency shocks increases optimal social insurance, provided the covariance between technological and dependency shocks is not very negative.

# From the *Banco de Portugal Economic Studies*

Banco de Portugal Economic Studies aims to publish theoretical and applied studies prepared by economists at Banco de Portugal, often co-authored with external researchers. All articles are signed and are of the sole responsibility of their respective authors. The articles aim to contribute to an informed and high-quality debate on the Portuguese economy. The journal intends to be a reference publication in that debate, and is directed to a relatively specialized public on economic issues.

## January 2021

**Indicators of monetary policy stance and financial conditions: an overview** • Nikolay Iskrev, Rita Lourenço, Carla Soares.

**On the measurement of Portuguese firms' fixed operating costs** • Sónia Félix, Pedro Moreira, Nuno Silva.

**Portuguese firms' financial vulnerability and excess debt in the context of the COVID-19 shock** • Francisco Augusto, Márcio Mateus.

**Lessons from a finitely-lived agents structural model** • Paulo Júlio, José R. Maria.

## April 2021

**Cyclical outputs and structural budget balances** • Cláudia Duarte, José R. Maria, Sharmin Sazedj.

**Bank pricing of corporate loans** • Márcio Mateus, Tiago Pinheiro.

**Curb your enthusiasm: the aggregate short-run effects of a borrower-based measure** • Daniel Abreu, Joana Passinhas.

# Seminars

## 2021

**Jan. 11** **The Role of Social Networks in Bank Lending** • Simon Rother • University of Bonn.

**12** **Monetary Policy and Corporate Debt Maturity** • Andrea Fabiani • Universitat Pompeu Fabra.

**13** **Health Inequality, Labor Supply and Retirement Policies** • Francesca Salvati • University College London.

**14** **Heterogeneous and Uncertain Health Dynamics and Working Decisions of Older Adults** • Angela Denis • University of Chicago.

**18** **Wealth Inequality in the US: the Role of Heterogeneous Returns** • Inês Xavier • Universitat Pompeu Fabra.

**19** **Still Too Much, Too Late: Provisioning for Expected Loan Losses** • Roman Goncharenko • KU Leuven.

**20** **A Saga of Wage Resilience: Like a Bridge over Troubled Water** • Hugo Vilares • London School of Economics.

**21** **Job Mobility Within and Across Occupations** • Attila Gyetvai • Duke University.

**25** **Who are Credit Constrained among Unemployed Workers? Answers from Conditional vs Unconditional Income Transfers** • Victor Hernandez Martinez • University of Rochester.

**26** **Social Networks and Corporate Social Responsibility** • Romulo Alves • Rotterdam School of Management, Erasmus University Rotterdam.

**27** **Capital Flows and the Real Effects of Corporate Rollover Risk** • Leonardo Elias • Massachusetts Institute of Technology.

**28** **Minority Political Representation, Regulatory Credit Access, and Mortgage Lending** • Thomas Krause • IWH Halle.

**Feb. 1** **The Asymmetric Pass-Through of Sovereign Risk** • Matias Moretti • New York University.

**2** **Reorganization, Liquidation and Labor Reallocation in Bankruptcy** • Gil Nogueira • New York University.

**4** **The Macro Implications of Narrow Banking: Financial Stability versus Growth** • Sebastian Merkel • Princeton University.

**24** **Trade Policy is Real News: A Quantitative Analysis of Past, Present, and Future Trade Costs** • George Alessandria • University of Rochester.

**Mar. 3** **COVID-19 and SME Failures** • Pierre-Olivier Gourinchas • University of California, Berkeley.

**10** **Firm Growth through New Establishments** • Toshihiko Mukoyama • Georgetown University.

**17** **Managing Public Portfolios** • Mikhail Golosov • University of Chicago.

**24** **Sovereign Default Risk and Firm Heterogeneity** • Luigi Bocola • Stanford University.

**Apr. 7** **Demand Composition and the Strength of Recoveries** • Martin Beraja • MIT Economics.

**14** **Are Marriage-related taxes and social security benefits holding back female labor supply?** • Mariacristina De Nardi • University of Minnesota.

**21** **Minimum Wages and Welfare** • Simon Mongey • University of Chicago.

**28** **Horizontal and Vertical Polarization: Task-Specific Technological Change in a Multi-Sector Economy** • Yongseok Shin • Washington University in St. Louis.

**May 5** **When FinTech Competes for Payment Flows** • Uday Rajan • Michigan Ross.

**12** **Bank Liquidity Provision Across the Firm Size Distribution** • Olivier Darmouni • Columbia Business School.

19 **A Goldilocks Theory of Fiscal Deficits** • Ludwig Straub • Harvard University.

26 **Markups and Inequality** • Corina Boar • New York University.

31 **Fiscal flexibility and global imbalances** • Vincenzo Quadrini • University of Southern California.

**Jun. 2** **Dirty Money: How Banks Influence Financial Crime** • Janet Gao • Kelley School of Business, Indiana University.

9 **It ain't where you're from, it's where you're at: hiring origins, firm heterogeneity, and wages** • Patrick Kline • UC Berkeley.

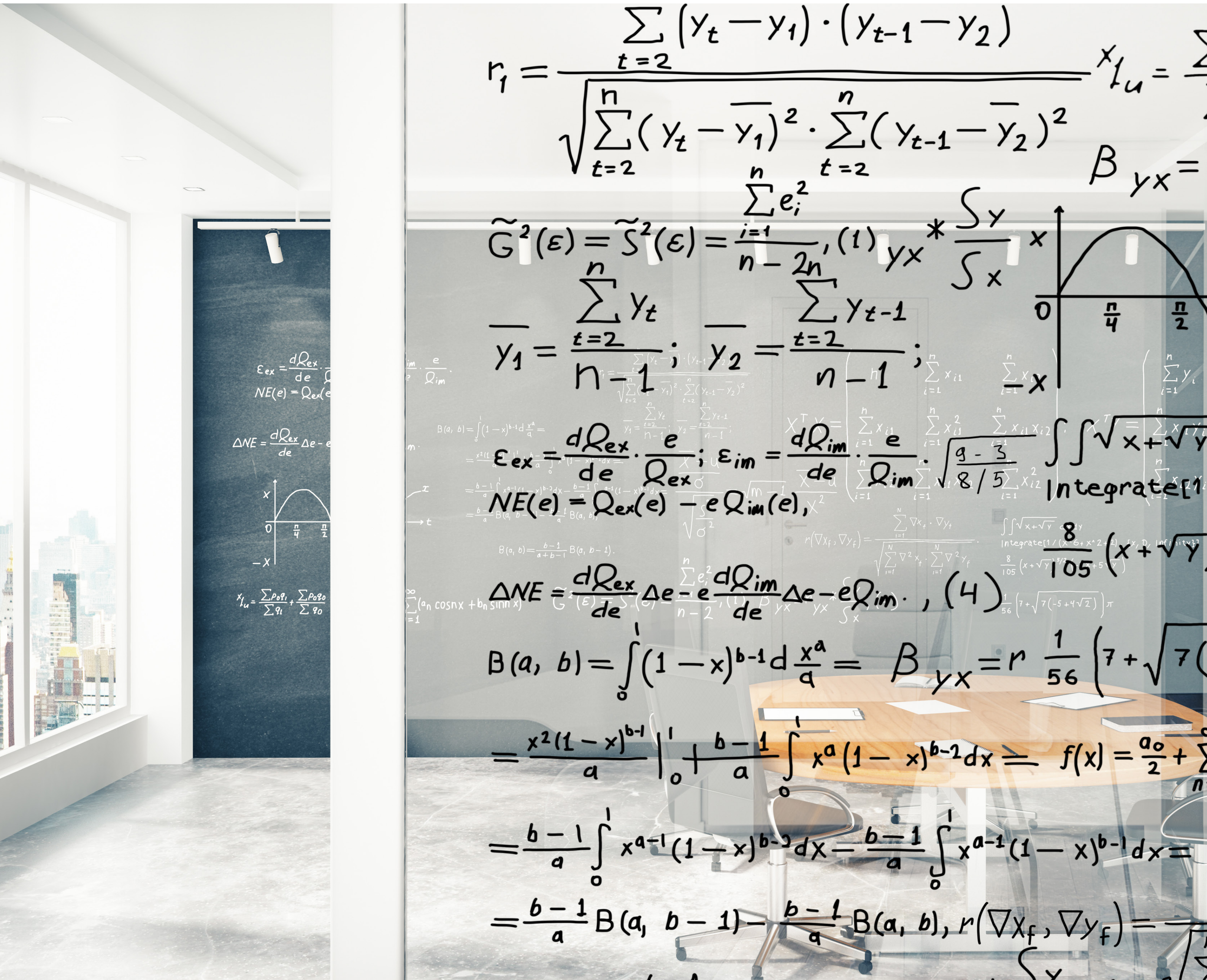
16 **Plants in Space** • Ezra Oberfield • Princeton University.

23 **The Rise of China and Changing Global Production Structures: Comparing Germany and the US** • Christian Dustmann • University College London.

28 **Risk-Taking and Monetary Policy Transmission: Evidence from Loans to SMEs and Large Firms** • Şebnem Kalemli-Özcan • University of Maryland.

30 **Did Banks Pay "Fair" Returns to Taxpayers on TARP?** • Amiyatosh Purnanandam • University of Michigan.

**Jul. 7** **Personality Traits, Job Search, and the Gender Wage Gap** • Christopher Flinn • New York University.



# Meet our researchers

In this issue we present two members of our research staff.

**Nuno Lourenço** joined the Economics and Research Department of the Banco de Portugal in 2016. He has been part of the Monitoring and Forecasting Division. He earned his MSc. in Economics from Nova School of Business and Economics, where he has been a Teaching Assistant and Grader. His work has been featured in peer-reviewed journals such as *Economic Modelling* and *Banco de Portugal Economic Studies*.

Please, tell us about the research you are carrying on at DEE

Over the past few years, my research focus has been on the development of tools to nowcast and forecast international trade flows in a data-rich environment drawing on the use of factor models coupled with regularization techniques. I have also conducted research on the non-linear modelling of house price dynamics by resorting to dynamic panel threshold models. On climate change, I have addressed the role of embedding climate-related data into nowcasting models as part of the Working Group on Forecasting. I have collaborated extensively in other projects on this subject within the ECB's monetary policy strategy review or the ongoing economy-wide analysis of the impacts of climate change, in partnership with several institutions. Recently, I was nominated to join the Research Workstream of the Network of Central Banks and Supervisors for Greening the Financial System. Since the onset of the pandemic crisis I have devoted time to put forward new tools to shed light on economic developments in a timely manner. The Daily Economic Indicator illustrates this fact.

Now is a good time to stress out the inspiring research environment at DEE. My own view is that the continuous exchange of ideas along with solid mentoring at the career inception turns out to be rewarding. This is what I have been exposed to through my colleagues, to whom I am grateful.

**Pedro Pires Ribeiro** is an economist at the Monetary Policy Division in the Economics and Research Department since 2016, after joining Banco de Portugal in 2009. Pedro is also a researcher at BRU-ISCTE and he has been collaborating as (Adjunct) Professor of Finance at INDEG-IUL and UAL, teaching courses in undergraduate and graduate levels as well as in executive education programs. He holds a Ph.D. in Finance from ISCTE-IUL, a M.Sc. in Finance from the same institution and a degree in Economics from Nova SBE. His work has been published in internationally renowned scientific journals, including the *Review of World Economics*, *Empirical Economics*, *Finance Research Letters* and *International Journal of Monetary Economics and Finance*.

Please, tell us about the research you are carrying on at DEE

My research interests are focused on monetary policy, financial markets and financial econometrics.

Over the last years, some of my research comprised the investigation of contagion effects in international interbank money markets, the study of the determinants of euro area sovereign bond yield spreads and the analysis of the relationship between euro area stocks and sovereign bonds. All these works aimed at contributing to an informed policy advice by resorting to approaches that in some cases constituted a methodological advance in the literature.

Moreover, one of my main topics of research has been centered on euro area inflation expectations, by testing the risk-neutral efficient market hypothesis for inflation swap markets, exploring the changes in short-term and long-term inflation compensation and oil prices and currently devoting attention to their dynamics following the outbreak of the COVID-19 pandemic.

In other research projects, I have sought to develop works related to the monetary policy transmission mechanism and presently I am finishing a working paper that examines the effects of permanent and temporary monetary policy shocks on exchange rates.

Finally, it would be remiss of me not to thank to my co-authors and to acknowledge the stimulating research environment experienced at both DEE and the Eurosystem/ESCB.

# Visiting fellows 2021

Banco de Portugal offers cash grants to support research projects in the field of Economics, with a view to promoting interchange between the scientific and academic communities and the Bank, and to contributing towards the improvement of theoretical and applied research in Portugal.

Applicants wishing to develop research projects in the Economics and Research Department must hold a Doctorate degree or be about to finalise their Doctorate degree. Preferred topics include monetary and labour economics, financial intermediation, banking, and studies on the Portuguese economy.

Due to the pandemic situation, Banco de Portugal will not be considering applications until current travel and workplace restrictions are lifted.

Further information may be obtained via email: conferences@bportugal.pt.

# Consultants

Miguel Portela • University of Minho

# Upcoming events and announcements

## Seminars 2021

**Sep. 8** Benjamin Schoefer • University of California
**15** David Matsa • Kellogg School of Management, Northwestern University
**20** Esteban Rossi-Hansberg • University of Chicago
**22** Simon Jäger • MIT Economics
**29** Richard Rogerson • Princeton University
**Oct. 6** Limor Golan • Washington University in St. Louis
**18** Matteo Maggiori • Stanford University
**27** Manuel Amador • Minnesota and Minneapolis
**Nov. 3** Robert Shimer • University of Chicago
**10** Daniel Xu • Duke University
**17** Enrique Mendoza • University of Pennsylvania
**29** Pablo Fajgelbaum • Princeton University
**Dec. 13** Alessandro Dovis • University of Pennsylvania

## Courses 2021

**Oct. 18-22** **Machine Learning in Finance** • Ansgar Walther • Imperial College
**Nov. 8-12** **Macro-finance** • Jaroslav Borovicka • New York University

## Conferences

**TBA 3rd conference on new trends and developments in econometrics + BPLIM Workshop**

## Correspondence to the editor

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This newsletter, as well as other online information about Economic Research at Banco de Portugal is available **here**.

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