

# José Nicolás Rosas

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## CONTACT INFORMATION

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### Department contacts:

Placement Director:	Prof. Edouard Schaal	<a href="mailto:eschaal@crei.cat">eschaal@crei.cat</a>	(+34) 93 542 2765
Graduate Coordinator:	Laura Agustí Roig	<a href="mailto:laura.agusti@upf.edu">laura.agusti@upf.edu</a>	(+34) 93 542 1863

## EDUCATION

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2021 - present	<b>Universitat Pompeu Fabra</b> , Ph.D. in Economics, Barcelona, Spain
2020 - 2021	<b>Universitat Pompeu Fabra</b> , MRes in Economics, Finance and Management, Barcelona, Spain
2019 - 2020	<b>Barcelona School of Economics</b> , Master Program in Economics, Barcelona, Spain
2014 - 2016	<b>Universidad de los Andes</b> , Master of Arts in Economics, Bogotá, Colombia
2010 - 2014	<b>Universidad de los Andes</b> , Bachelor of Arts in Business Administration, Bogotá, Colombia
2008 - 2014	<b>Universidad de los Andes</b> , Bachelor of Arts in Economics, Bogotá, Colombia

## REFERENCES

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Professor **Jordi Galí** (*Advisor*)  
CREi, UPF, and BSE  
Tel. (+34) 93 542 2754  
[jgalí@crei.cat](mailto:jgalí@crei.cat)

Professor **Marc Hofstetter**  
Universidad de los Andes  
Tel. (+57) 601 332 4493 ext. 3633  
[mahofste@uniandes.edu.co](mailto:mahofste@uniandes.edu.co)

Professor **Davide Debortoli** (*Advisor*)  
UPF, CREi, and BSE  
Tel. (+34) 93 542 1657  
[davide.debortoli@upf.edu](mailto:davide.debortoli@upf.edu)

Professor **Priit Jeenas**  
UPF, CREi, and BSE  
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## JOB MARKET PAPER

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### Carbon Emissions and the Transmission of Monetary Policy

*Abstract:* This paper studies the dynamic causal effects of monetary policy on carbon emissions in the U.S. Using high-frequency changes in interest rates around FOMC announcements (i.e. monetary policy surprises), I identify a structural monetary policy shock. An assessment of the effects of these shocks reveals that, contrary to the consensus view, a contractionary monetary policy shock is associated with a *rise* in total carbon emissions from energy consumption: while emissions from the industrial sector fall (as expected), emissions from non-industrial sectors rise significantly by 1.51pp in the short run. A detailed exploration reveals that the channels of monetary policy transmission vary in strength and relevance across sectors and help explain these heterogeneous responses: while the conventional *aggregate demand* channel plays a central role in the response of industrial sector emissions, the evidence suggests a more significant role of the *commodity price* channel of monetary policy for the transmission of shocks to the non-industrial sectors.

## PUBLICATIONS

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**The Poor and the Rich: Preferences Over Inflation and Unemployment** with Marc Hofstetter, June 2021, *Journal of Money, Credit and Banking*, Volume 53, Issue 4, pages 875-895.

*Abstract:* What are the tradeoffs that the public is willing to accept between inflation and unemployment? We find that people dislike extra points of unemployment more than extra points of inflation. This is true for both Europe and Latin America. For the latter, the aversion to unemployment relative to inflation is much greater. Moreover, in both regions, the poor's distaste for extra points of unemployment relative to inflation is significantly greater than that of the rich. This result contributes to the literature on the costs of inflation and questions the commonly held view that prescribes strong anti-inflationary postures as a way to implement policies consistent with the preferences of the poor.

**Ponzi schemes and the financial sector: DMG and DRFE in Colombia** with Marc Hofstetter, Daniel Mejía and Miguel Urrutia<sup>†</sup>, November 2018, *Journal of Banking & Finance*, Volume 96, pages 18-33.

*Abstract:* We use a novel dataset to estimate, for the first time in the literature, the effects of Ponzi schemes on the formal financial sector. DMG and DRFE, two Ponzi schemes that were shut down by the Colombian government in November 2008, had over half a million customers, who invested funds corresponding to 1.2% of Colombia's annual GDP. We find that pyramid customers obtained more loans from the financial sector and their credit standings were better than those in the respective control groups while the schemes were operating. Afterwards, their loan stocks started to decrease and their ratings with the banking sector deteriorated. Prior to November 2008, deposits in the financial sector fell more in the municipalities more affected by the schemes.

## POLICY PUBLICATIONS

**The African Continental Free Trade Area: Potential Economic Impact and Challenges** with Lisandro Abrego, Mario de Zamaroczy, Tunc Gursoy, Garth P. Nicholls and Hector Perez-Saiz, May 2020, *IMF Staff Discussion Notes No. 2020/04*, International Monetary Fund.

*Abstract:* Political momentum towards Africa-wide free trade has been intensifying. In March 2018, over 40 countries signed the African Continental Free Trade Area (AfCFTA) agreement. Once fully implemented, the AfCFTA is expected to cover all 55 African countries, with a combined GDP of about US\$2.2 trillion. This SDN takes stock of recent trade developments in Sub-Saharan Africa and assesses the potential benefits and costs of the AfCFTA, as well as challenges to its successful implementation. In addition to increased trade flows both in existing and new products, the AfCFTA has the potential to generate substantial economic benefits for African countries. These benefits include higher income arising from increased efficiency and productivity from improved resource allocation, higher cross-border investment flows, and technology transfers. Besides lowering import tariffs, to ensure these benefits, African countries will need reduce other trade barriers by making more efficient their customs procedures, reducing their wide infrastructure gaps, and improving their business climates. At the same time, policy measures should be taken to mitigate the differential impact of trade liberalization on certain groups as resources are reallocated in the economy and activities migrate to locations with comparatively lower costs.

**Trade Potential in Southern Cone Countries** with Soledad Feal-Zubimendi, Fabiano Rodrigues Bastos and Daniel Hernaiz, March 2018, *IDB Technical Notes No. IDB-TN-01397*, Inter-American Development Bank.

*Abstract:* A trade gravity model is used to calculate the bilateral export potential of Southern Cone countries (Argentina, Brazil, Chile, Paraguay, and Uruguay) and identify patterns of weak performance across destinations and productive sectors. After controlling for key trade fundamentals and country and time effects, we find that exports to large, advanced economies like the United States and the European Union fall short of expected levels. Potential trade with the rest of Latin America shows a high degree of heterogeneity across sectors and countries. Exports within the Southern Cone are generally above the predicted value, but there is still space for higher flows, particularly regarding Chile-MERCOSUR relations.

## WORKING PAPERS

**The Transmission of Climate Shocks: The Case of Floods in India** with Alejandro Rábano

*Abstract:* This paper studies the propagation of natural disasters through input-output linkages. We combine manufacturing data from the Annual Survey of Industries in India for 2000-2007 with the flood archive from the Dartmouth Flood Observatory and apply the empirical strategy suggested by de Chaisemartin and d'Haultfoeuille (2022). Output and capital decrease after the first flood hits a district, especially in areas with the lowest historical exposure. This suggests that adaptation plays a role in mediating the impact of extreme weather events. We also find that manufacturing industries that rely on agricultural inputs suffer a larger decrease in output and capital, and their output price increases, which provides evidence of a supply shock with persistent impacts. At the product level, we find some evidence of propagation through input-output linkages: when a high share of the production of a specific product is located in areas affected by extreme floods, establishments manufacturing the same type of product, but not directly affected, experience an increase in the price and a decrease in the quantity produced.

**Lessons from a Bubble Burst** with Marc Hofstetter

*Abstract:* In 2008 two Ponzi schemes were shut down by the Colombian government. Using microdata for a sample of almost a quarter of a million of their investors we (i) describe their socioeconomic characteristics and (ii) estimate the individual and household risk factors associated with making a profit from such scams. Our paper contributes to the household finances, financial education, and financial literacy literatures.

## WORK IN PROGRESS

**The Rise of Market Power and the Flattening of the Phillips Curve**

*Abstract:* In recent decades, the U.S. economy has been characterized by two stylized trends: (i) a steady increase in aggregate market power, measured both via firm-level markups and profitability; and (ii) the apparent flattening of the Phillips curve, which

points towards a weakened relationship between inflation and real activity over the business cycle. However, the relationship between these two trends is at odds with the predictions of the standard New Keynesian model. In this paper, I rely on a multi-sector model with production networks, heterogeneity in input-output linkages, in the degree of nominal rigidities and in the degree of market power to reconcile these two phenomena. Changes in the sectorial markups will affect the optimal demand for inputs from different sectors, and as such, the centrality of those sectors in the economy. The model predicts a New Keynesian Phillips curve that is a modified version of the one predicted by the standard one-sector model, and in which the characteristics of the network, sectorial price rigidities and sectorial markups matter for inflation dynamics. Quantitatively, variations in these components can account for a decrease in the slope of the Phillips curve with different levels of importance, with the largest effect due to an increase in the average degree of market power in the economy.

## FIELDS OF INTEREST

<i>Primary</i>	Macroeconomics
<i>Secondary</i>	Monetary Economics, Time Series Econometrics, Climate and Energy

## RESEARCH AND WORK EXPERIENCE

<b>Universitat Pompeu Fabra</b>	<i>Barcelona, Spain</i>
Research Assistant for Professor Andrea Caggese	04/2022 - 02/2023
<b>International Monetary Fund</b>	<i>Washington, DC, United States</i>
Research Analyst at the African Department (AFR-C2)	09/2018 - 08/2019
<b>Inter-American Development Bank</b>	<i>Washington, DC, United States</i>
Economics Contractual - Research Fellow at the Southern Cone Department	08/2016 - 07/2018
<b>Universidad de los Andes</b>	<i>Bogotá, Colombia</i>
Research Assistant for Professors Marc Hofstetter and Daniel Mejía	06/2014– 07/2016

## TEACHING EXPERIENCE

<b>Universitat Pompeu Fabra</b>	<i>Barcelona, Spain</i>
Teaching Assistant (Undergraduate level)	
International Economics - Professor Martí Mestieri	2022
Probability and Statistics - Professor Elisa Alòs	2022
Data Analysis - Professor Claudia Sanguinetti	2021
<b>Universidad de los Andes</b>	<i>Bogotá, Colombia</i>
Teaching Assistant (Undergraduate level)	
Introduction to Macroeconomics - Professor Marc Hofstetter	2014 - 2016
Intermediate Microeconomics - Professor Ana María Ibañez	2014 - 2016
Intermediate Macroeconomics - Professor Daniel Mejía	2014 - 2015
Monetary Policy and Theory - Professor Marc Hofstetter	2010 - 2014

## CONFERENCES (\* scheduled)

2024	SAEe 2024 Simposio de la Asociación Española de Economía (Palma de Mallorca)*, RES PhD Conference 2024 (Portsmouth)*, 7th Annual Meeting of CEBRA's International Finance and Macroeconomics Program (Luxembourg)*, National Academies' Workshop on the Macroeconomic Implications of Decarbonization Policies and Actions (online), Econometric Models of Climate Change (EMCC) VIII (Cambridge), 6th QMUL Economics and Finance Workshop for PhD & Post-doctoral Students (London), 2nd Edition of the UEA ECO Time Series Workshop (Norwich), BSE Ph.D. Jamboree 2024 (Barcelona), CREi Macroeconomics Lunch Workshop (Barcelona)
2023	BSE Ph.D. Jamboree 2023 (Barcelona), CREi Macroeconomics Lunch Workshop (Barcelona)

## HONORS, AWARDS AND GRANTS

### Honors and awards

2024	Best Paper by a Junior Researcher at the 2nd Edition of the UEA ECO Time Series Workshop
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**Fellowships and grants**

- 2022 Agència de Gestió d'Ajuts Universitaris i de Recerca (AGAUR), Grant for the recruitment of early-stage research staff (FI-2022)
- 2021 Universitat Pompeu Fabra, Teaching assistance fellowship
- 2020 Universitat Pompeu Fabra, Full MRes tuition waiver

**TRAINING ACTIVITIES**

- 2024 BSE Summer School on Time Series Models for Macroeconomic Analysis II (Barcelona), EABCN Training School on Empirical Methods for Business-Cycle Analysis (Mannheim), EABCN Training School on Difference-in-Differences and Event Study Estimators with Panel Data (online)
- 2023 BSE Summer School on Bayesian Time Series Methods (Barcelona), BSE Summer School on Python and R Programming for Data Science (online)
- 2022 BSE Summer School on Time Series Models for Macroeconomic Analysis I (Barcelona), Dynare Summer School (Paris), EABCN Training School on Finance for Macroeconomists: High Frequency Analysis, News, Surprises and Shocks (online), EABCN Training School on Mixed Frequency Data (MIDAS) with Applications to Machine Learning and Big Data (online), EABCN Training School on the Macroeconomics of Climate Change (online)
- 2021 Universität Würzburg Summer School on Macroeconomic Modeling and Estimation with Dynare (online), EABCN Training School on Formulating and Estimating DSGE Models (online), EABCN Training School on the Zero Lower Bound and Secular Stagnation (online)

**LANGUAGES AND TECHNICAL SKILLS**

- Software & Programming* Proficient in Stata, Matlab, EViews, Gretl, Dynare, LaTeX, Bloomberg, Refinitiv Datastream. Familiarity with R, Python, QGIS.
- Languages* Spanish (Native), English (Fluent), Portuguese (Advanced), German (Basic), Catalan (Basic).

**PERSONAL INFORMATION**

- DOB* June 22nd, 1990
- Nationality* Colombian, Spanish