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# BRUNO SULTANUM

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## CURRICULUM VITAE

EXPERIENCE        Economist, Federal Reserve Bank of Richmond, 2015 to present

EDUCATION        Ph.D. in Economics, The Pennsylvania State University, 2015  
M.S. in Economics, Getúlio Vargas Foundation, 2010  
B.S. in Economics, Getúlio Vargas Foundation, 2007

PROFESSIONAL    Organizer of the Search and Matching in Macro and Finance Virtual Seminar  
ACTIVITIES        Series (See [www.sammf.com](http://www.sammf.com) for more information)

PUBLISHED AND    “An information-based theory of financial intermediation” (with Zach Bethune  
ACCEPTED        and Nicholas Trachter), *Accepted at the Review of Economic Studies*  
PAPERS

“The Cost of Information in the Blockchain: A Discussion of Routledge and Zetlin-Jones (2021)”, *Journal of Economic Dynamics and Control*, 2021

“Playing with money” (with Douglas Davis, Oleg Korenok, Peter Norman and Randall Wright), *Journal of Economic Behavior and Organization*, 2020

“Asset issuance in over-the-counter markets” (with Zach Bethune and Nicholas Trachter), *Review of Economic Dynamics*, (33) 2019, 4-29

“Financial fragility and over-the-counter markets”, *Journal of Economic Theory* 177 (2018), 616-658

“Preventing bank-runs” (with David Andolfatto and Ed Nosal), *Theoretical Economics* 12 (2017), 1003-1028

“Optimal Diamond-Dybvig mechanism in large economies with aggregate uncertainty”, *Journal of Economic Dynamics & Control* 40 (2014) 95-102

WORKING        “Is Money Essential? An Experimental Approach” (with Janet Hua Jiang, Peter  
PAPERS        Norman, Daniela Puzzello and Randall Wright), *R&R at Journal of Political Economy*

“Private information in over-the-counter markets” (with Zach Bethune and Nicholas Trachter)

“A crisis-bailout game” (with Bruno Salcedo and Ruilin Zhou), *submitted*

IN PROGRESS

“Sovereign default and credit default swaps: The role of dealers’ liquidity provision” (with Gaston Chaumont, Grey Gordon and Elliot Tobin)

**Abstract:** We propose a model of sovereign default where investors trade bonds and credit default swaps (CDS) contracts of a country, with both assets being traded over the counter. We model the over-the-counter market with directed search, where dealers post the terms of trade and investors choose which dealer to go to. The model captures a main feature that the existing literature on CDS emphasizes. Namely, CDS act as an additional source of liquidity for investors. Our model highlights the role of dealers in providing liquidity, which reduces the liquidity premium of sovereign bonds, the cost of financing debt and, ultimately, default risk. We complement our theoretical study with an empirical analysis of the CDS position of the main traders in the sovereign CDS market. Finally, we calibrate our model to quantify the effect that the European ban on naked sovereign CDS had on default risk.

“Self-fulfilling debt crisis and limits to arbitrage” (with Gaston Chaumont and Grey Gordon)

**Abstract:** Self-fulfilling crises, where investors’ expectations of a default cause a default, are a defining feature of sovereign debt markets. However, we show that a self-fulfilling crisis creates an arbitrage opportunity. Suppose that there are two equilibria in an economy: a self-fulfilling crisis where investors do not rollover the debt and default happens and a non-crisis where investors rollover the debt and default does not happen. In the self-fulfilling crisis, a large investor or coalition of small investors with sufficient resources could bid up the sovereign debt to its non-crisis equilibrium price. This price results in zero profits on the purchase of the new issuance *and* a gain for existing debt holders. We propose an equilibrium refinement based on absence of this arbitrage opportunity and show that (i) there is a unique equilibrium which survives the refinement, and (ii) in the unique equilibrium the sovereign does not default due to rollover risk. Further, we show that the possibility of indeterminacy increases when resource constraints are tight or the country’s debt is large relative to investor resources. Last, we extend our model to allow investors to participate in credit-default swap (CDS) markets. Contrary to conventional wisdom, we find the ability to trade in CDS markets can *dampen* indeterminacy by allowing investors to sell CDS protection and use those proceeds to execute the arbitrage trade. Consequently, limits on trading CDS, such as the European ban on naked CDS, can *amplify* indeterminacy rather than dampen it.

REFEREE

Referee for Journal of Political Economy, Journal of Economic Theory, Theoretical Economics, Review of Economic Dynamics, Journal of the European Economic Association, International Economic Review, Journal of Economic Dynamics and Control, European Economic Review, Journal of Banking and Finance, Journal of Financial Intermediation, Economics Letters, Canadian

Journal of Economics

CONFERENCES & SEMINARS	2013 – SED Annual Meeting, Yonsei University, South Korea 2013 – Midwest Economic Theory Meetings, Michigan State University 2014 – SED Annual Meeting, University of Toronto, Canada 2014 – Midwest Macro Meeting, University of Missouri-Columbia 2014 – PSU-Cornell Macro Workshop, The Pennsylvania State University 2014 – Workshop on Money, Banking, Payment and Finance, Chicago Fed 2014 – Brown Bag Seminar, St. Louis Fed 2014 – Cornell-PSU Macro Workshop, Cornell University 2014 – Brown Bag Seminar, Philadelphia Fed 2015 – Seminar, Department of Economics, Binghamton SUNY, 2015 – Seminar, Federal Reserve Board 2015 – Seminar, Richmond Fed 2015 – Midwest Macro Meeting, Washington University in St. Louis 2015 – Workshop on Money, Banking, Payment and Finance, St. Louis Fed 2015 – 11 <sup>th</sup> World Congress of the Econometric Society, Montreal, Canada 2016 – Seminar, Department of Finance, University of Wisconsin 2016 – Money, Banking, and Asset Markets Conference, U of Wisconsin 2016 – LuBra Macro, Portugal 2016 – Information in Financial Markets, UC Santa Barbara and LAEF 2017 – Midwest Macro Meeting, Louisiana State University 2017 – North American Summer Meeting of the Econometric Society, Wash U 2017 – SED Annual Meeting, University of Edinburgh, Scotland, UK 2017 – Workshop on Money, Banking, Payment and Finance, Bank of Canada 2017 – Money, Banking and Asset Markets Conference, University of Wisconsin 2017 – 10 <sup>th</sup> NYU Search Theory Workshop, New York University 2018 – Midwest Macro Meeting, University of Wisconsin 2018 – North American Summer Meeting of the Econometric Society, UC Davis 2019 – Asian Summer Meeting of the Econometric Society, Xiamen University 2019 – SED Annual Meeting, Washington University, St Louis 2019 – Paris Financial Management Conference, Paris 2020 – Seminar, Department of Economics, University of Western Ontario 2021 – Seminar, Department of Economics, Ashoka University 2021 – SED Annual Meeting, University Minnesota
CITIZENSHIP	Brazilian, US permanent resident (Green Card holder)
LANGUAGES	English (fluent), Brazilian Portuguese (native)