University of Minnesota - Twin Cities
Department of Economics
4-101 Hanson Hall
1925 Fourth Street South
Minneapolis, MN 55455
U.S.A.

Curriculum Vitae
Fall 2021

STELIOS FOURAKIS

Personal Data

Address
4-101 Hanson Hall
1925 Fourth Street South
Minneapolis, MN 55455

Contact Information
Cell: (608) 338-8053
E-mail: foura001@umn.edu
URL: www.steliosfourakis.com

  Citizenship: US, UK (eligible for Greek citizenship)

Major Fields of Concentration

Macroeconomics, International Economics, Public Economics

Education

Degree	Field	Institution	Year
PhD	Economics	University of Minnesota (expected)	2022
BA	Political Economy	Georgetown University	2013

Dissertation

Title: "Essays on Sovereign Default with Information Frictions"
Dissertation Advisor: Professor Manuel Amador
Expected Completion: Summer 2022

References

Professor Manuel Amador	(612) 624-4060 amador@umn.edu	Department of Economics University of Minnesota 4-101 Hanson Hall
Professor Timothy Kehoe	(612) 625-1589 tkehoe@umn.edu	1925 Fourth Street South Minneapolis, MN 55455
Dr. Marco Bassetto	bassetto@nber.org	Research Department Federal Reserve Bank of Minneapolis 90 Hennepin Avenue Minneapolis, MN 55401

Honors and Awards

2017   Dr. Harald Uhlig Award in Macroeconomics, Department of Economics, University of Minnesota, Minneapolis, Minnesota

Teaching Experience

2017 - 2018   *Teaching Assistant*, Department of Economics, University of Minnesota, Minneapolis, Minnesota. Led recitation sections for *Principles of Microeconomics* and *Principles of Macroeconomics*.

Research Experience

July 2020 - present   *Research Analyst*, Research Department, Federal Reserve Bank of Minneapolis, Minneapolis, Minnesota. Research Assistant to Professor Manuel Amador. Wrote code to solve a variety of quantitative models of sovereign default, to produce empirical moments based on the results, and to explore basic counterfactuals. Helped develop a method for decomposing the changes in consumer welfare associated with a sovereign's ability to access international markets. Conducted background research on the welfare implications of fiscal rules in quantitative models of sovereign default. Wrote code in support of projects exploring the potential for multiple equilibria in standard quantitative models of sovereign default.

July 2019 - July 2020   *Research Assistant*, Heller Hurwicz Economics Institute, University of Minnesota, Minneapolis, Minnesota. Research Assistant to Professor Manuel Amador.

July 2018 - July 2019   *Research Analyst*, Research Department, Federal Reserve Bank of Minneapolis, Minneapolis, Minnesota. Research Assistant to Professor Manuel Amador.

January 2014 - July 2016   *Economist*, Pacific Economics Group Research, LLC, Madison, Wisconsin. Collected and processed data in R and SQL for studies of electric and gas utility productivity, cost, and service quality. Researched price index theory and constructed transnational firm-industry price indices (US-Canada and US-Australia). Wrote a library for estimation of single and multiple equation econometric models of firm cost and service quality. Researched the theory and implementation of incentive compatible menus in regulated utility rate making practices.

Papers

Aguiar, Mark, Manuel Amador, and Stelios Fourakis, "On the Welfare Losses from External Sovereign Borrowing," IMF Economic Review, 2020.

Working Papers

Fourakis, Stelios, "Sovereign Debt and Government Reputation," job market paper, presented at the 2021 Chicago Fed Rookie Conference, November 2021.

Fourakis, Stelios, "Liquidity, Default Risk, and the Information Sensitivity of Sovereign Debt"

Aguiar, Mark, Manuel Amador, and Stelios Fourakis, "Computing Sovereign Debt Models: Why So Hard?"

Fourakis, Stelios, "Long Term Debt Models: Solution Methods Matter"

Fourakis, Stelios, "Sovereign Default under Imperfect Information"

Referee Experience

Review of Economic Dynamics

Computer Skills

Julia, R, working knowledge of Fortran, Matlab

Languages

English (native), German (intermediate), Greek (intermediate), Arabic (intermediate, both MSA and Levantine Colloquial)

Abstracts

"Sovereign Debt and Government Reputation," job market paper

In this paper, I build a flexible theoretical model of sovereign borrowing, default, and renegotiation with borrower reputation. There is asymmetric information about the government's "type", and reputation is the market belief that it is "responsible" and therefore less likely to default. Every government decision informs market beliefs about this "type". I calibrate the model using data on how countries' credit histories affect the prices they face. Using the model, I show that countries that have recently defaulted have poor reputations because they rapidly run up their debts prior to default, not because the default decision itself is revealing. I also show that, for countries facing non-trivial levels of default risk, the reputational costs of default are less than 0.2 basis points of consumption. I then validate the model by showing that its predictions about the effects of borrowing behavior on interest rate spreads through the reputation channel are borne out in the data. Finally, I show that transparency initiatives and audit programs have significant, negative implications for welfare, because they weaken the signaling mechanisms that prevent, to some extent, overborrowing by the government.

"Liquidity, Default Risk, and the Information Sensitivity of Sovereign Debt"

In this paper, I document that, during the height of the Eurozone Debt Crisis in Spain, 1.) Spanish government bonds became substantially less liquid and less traded on secondary markets, 2.) the first appearance of this phenomenon lagged far behind the initial jump in interest rate spreads in late 2008, and 3.) it persisted throughout the period of peak interest rate spreads and only subsided after the worst of the crisis had passed. I argue that these facts are related and best explained by a model of sovereign default that features secondary markets in which it is possible that some traders have private information. I then build a model in which some traders have private information about the country's future economic conditions and show that this allows the model to reproduce both the delayed reaction of bid-ask spreads as well as their peak and behavior during the height of the crisis. Using the model, I measure the losses to investors associated with variation in liquidity during debt crises. Finally, I validate the model by showing that the model's predicted relationship between current, realized bid-ask spreads and future values of GDP allows me to forecast GDP significantly better than a standard, benchmark forecast.

"Computing Sovereign Debt Models: Why So Hard?" with Mark Aguiar and Manuel Amador

Sovereign debt models with long-duration bonds are notoriously hard to compute. Using a simplified environment of the standard Eaton & Gersovitz (1981) model with outside option shocks, we show that equilibria in pure strategies may not exist, explaining the lack-of-convergence issues encountered in the quantitative literature. We propose an algorithm for computing mixed-strategy equilibria. For some parameterizations, we uncover millions.

"Long Term Debt Models: Solution Methods Matter"

Over the last decade, long term debt has become a standard feature in quantitative studies of sovereign default. A wide variety of numerical solution methods have been used in solving these models, but little is known about the relative performance of various methods and their sensitivity to parameters and grid specifications. In this paper, I provide a survey of the commonly used methods and then test their performance. For long run simulations (often used to calculate the moments used to estimate the model), I find that results (both within each method, varying grid fineness, and across methods) are relatively stable. However, for short run simulations (often used to analyze the model's prediction about a specific country's experience at a specific time of interest), the results can vary dramatically. In some cases, the results even change qualitatively. Using these results, I provide guidance on when each method is likely to be robust and when it is probably the case that results are not robust to the choice of solution method (and specific parameters of that solution method, such as grid fineness).

"Sovereign Default under Imperfect Information"

In this paper, I document that, during the Eurozone Debt Crises, 1.) forecasts of output were persistently biased upwards, 2.) the afflicted countries all saw steep increases in their government debt to GDP ratios and their external government debt to GDP ratios, and 3.) spreads reacted slowly to these increases. I argue that these three facts are related and connect them through a model of sovereign default which features incomplete information with respect to the persistent component of output. I then show that the inclusion of information imperfections allows the model to produce patterns during and before crises which better match the patterns in the data than the benchmark model.