

**University of Minnesota - Twin Cities**

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**Curriculum Vitae**  
**Fall 2021**
**STELIOS FOURAKIS****Personal Data***Address*

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*Citizenship:* US, UK (eligible for Greek citizenship)

**Major Fields of Concentration**

Macroeconomics, International Economics, Public Economics

**Education**

<i>Degree</i>	<i>Field</i>	<i>Institution</i>	<i>Year</i>
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. Macro 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

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"

Fourakis, Stelios, "Liquidity, Default Risk, and the Information Sensitivity of Sovereign Debt," 2019

## 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**

After restructuring their debts, countries face higher interest rates than justified by their fundamentals. In order to rationalize this pattern, I build a model of sovereign default featuring asymmetric information about whether the government is responsible (more patient and finds default very painful) or irresponsible (less patient and finds default not so painful). The model successfully explains the patterns of post-restructuring effects in the first five years after a restructuring. I then use the model to develop a way to measure countries' reputation using publicly available data on borrowing behavior. I show that this measure of reputation provides significant additional information about interest rate spreads and very well predicts default behavior. Finally, I analyze the impact of transparency initiatives in policy making through the lens of my model. I find this type of policy which removes signaling motives induces a 1% fall in welfare for a consumer whose preferences only disagree with the government's in terms of their discount factor.

### **“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 show that the inclusion of information imperfections 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.

Computing Sovereign Debt Models: Why So Hard? (joint with Mark Aguiar and Manuel Amador)

### **“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.