

# Seung Lee

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## Office Contact Information

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Graduate Program Coordinator:	Sandra Reebie	<a href="mailto:sreebie@ucsc.edu">sreebie@ucsc.edu</a>

## Education

UNIVERSITY OF CALIFORNIA SANTA CRUZ	2012-Present
PHD in Economics, expected December 2016	
Advisors: Kenneth Kletzer, Eric Aldrich, Lilia and Serguei Maliar	
Thesis Title: Essays on Computational Economics and Finance	
UNIVERSITY OF CALIFORNIA BERKELEY	1998-2000
BA in Economics with Honors	

## Fields

PRIMARY  
Computational Economics, Financial Economics

SECONDARY  
Mathematical & Quantitative Methods, Labor & Demographic Economics

## Research Experience

RESEARCH ASSISTANT TO E. ALDRICH, G. LAUGHLIN AND J. GRUNDFEST	03/2015 – present
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## Work Experience

OLD MISSION CAPITAL CHICAGO IL	2007-2010
Derivatives Trader	
AMERICAN STOCK EXCHANGE NEW YORK NY	2003-2006
Proprietary Trader	
SUSQUEHANNA INTERNATIONAL GROUP CHICAGO IL	2000-2002
Assistant Trader	

## Teaching Experience

UNIVERSITY OF CALIFORNIA SANTA CRUZ	2012-2016
Teaching Assistant: Introduction to Microeconomics	
Head Teaching Assistant: Introduction to Microeconomics	

## Grants

CENTER FOR ANALYTICAL FINANCE	2015
"An Entropy-Based Measure of Price Discovery" Amount: \$3000	

## Research Papers

### VOTE TO DEFAULT: HETEROGENEOUS SOVEREIGN DEFAULT MODEL

Job Market

Abstract: Inspired by the political events that followed after the sovereign debt crisis in Greece post 2009, I develop an overlapping generations model with aggregate and idiosyncratic shocks to analyze agent's decisions if each had a vote in whether the country should default or not. The hypothetical economy where agents vote to default almost became a reality in 2015 when Prime Minister of Greece asked the voting population whether the country should remain in the bailout program through a referendum. Model results exhibit similar patterns as the Greek referendum with the young and less wealthy more inclined to vote for default.

### RELATIVE SPREAD AND PRICE DISCOVERY

with Eric Aldrich

Abstract: We develop a theoretical model to highlight a previously unexplored mechanism of price discovery: relative minimum price increments for equivalent assets trading on distinct financial exchanges. Although conventional wisdom dictates that futures market assets lead equities equivalents in terms of price formation, our model predicts that the opposite should be true when particular relative price conditions hold for the bids and offers of each asset. We develop a new empirical measure of price discovery which is suited to asynchronous, high-frequency transaction and quotation data, and apply it to the highly liquid E-mini/SPY pair in order to test the predictions of the model. Empirical evidence strongly supports the model and further demonstrates that relative minimum contract size plays an additional role in the formation of prices.

## Research Papers in Progress

### EFFICIENCY EVOLUTION AND SOCIAL SECURITY INSOLVENCY

with Lilia and Serguei Liliar

Abstract: United States population has increasingly become older. The aging is expected to continue as life expectancy increases, more baby boomers reach retirement age and birth rate remain at today's levels. The demographic changes has impacted labor participation rates as well as the solvency of the Social Security Trust Fund. Social Security Administration projects the fund's insolvency around 2035. Given the "imminent" insolvency, policies such as increasing eligibility age and expanding the tax base have been proposed. These policies are usually analyzed using many period OLG model with a hump-shaped age-dependent productivity profile. We believe this profile is dynamic as the population itself. We incorporate the dynamic age-dependent profile in an OLG framework in a closer look at insolvency of the Social Security Trust Fund.

## References

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### Eric Aldrich

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### Gregory Laughlin

Professor of Astrophysics  
Yale University  
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