



Fachbereich VWL / Department of Economics

EconNewsletter

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NOVEMBER 1 – NOVEMBER 4, 2022

NEWSLETTER 2022-20

SEMINAR CALENDAR

Quantitative Economics

[Alexander Meyer-Gohde, Goethe Universität Frankfurt:](#)

*Backward Error and Condition Number Analysis of Linear DSGE
Solutions*

Tuesday November 1
12:15–13:30
R. 0079 (VMP 5)

This seminar will also be live streamed. For participation via Zoom please register via the following link:

<https://uni-hamburg.zoom.us/meeting/register/tJYvc-itqzgpHNVhBUWXWPX6bv3WwEHioDq5>

Hamburg Lectures in Law and Economics

[Ian Ayres, Yale Law School:](#)

The Power of Resisted Temptation

Wednesday November 2
18:15–19:45

This seminar is held in a digital format. To register for **Online participation** via Zoom please click the following link and fill in the necessary information: <https://ile-hamburg.us5.list-manage.com/track/click?u=a3a598540658d2c2aadfae5b6&id=c7bca62f59&e=aaaf291111> or send an email to yasmin.seyrafian@ile-hamburg.de. You will then receive an Email with the access link prior to the lecture.

Microeconomics Seminar

[Nathan Chan, University of Massachusetts Amherst:](#)

On generosity in public good and charitable dictator games

Thursday November 3
17:15–18:45
R. 0079 (VMP 5)

ABSTRACTS

Quantitative Economics

Alexander Meyer-Gohde, Goethe Universität Frankfurt:

Backward Error and Condition Number Analysis of Linear DSGE Solutions

Abstract:

This paper develops and implements a backward and forward error analysis of the numerical reliability of the solutions of linear dynamic stochastic general equilibrium (DSGE) models. Comparing seven different solution methods from the literature, I demonstrate an economically significant loss of accuracy in the standard, generalized Schur (or QZ) decomposition based solutions methods resulting from large backward errors in solving the associated matrix quadratic problem. This is illustrated in two production-based asset pricing models, a simple model of external habits with a readily available symbolic solution and the model of Jermann (1998) that lacks such a symbolic solution - QZ-based numerical solutions miss the equity premium by up to several annualized percentage points for parameterizations that either match the chosen calibration targets or are nearby to the parameterization in the literature. While the numerical solution methods from the literature failed to give any indication of these potential errors, easily implementable backward-error metrics and condition numbers are shown to successfully warn of such potential inaccuracies. The analysis is then performed for a database of roughly 100 DSGE models from the literature and a large set of draws from the model of Smets and Wouters (2007). While economically relevant errors do not appear pervasive from these latter applications, accuracies that differ by several orders of magnitude persist.

Hamburg Lectures in Law and Economics

Ian Ayres, Yale Law School:

The Power of Resisted Temptation

Abstract:

Sunk opportunity costs can causally affect subsequent behavior. Turning down initial temptations might make it easier for people to stay committed in the longer term to a personal goal. We discuss several competing explanations for this enhanced commitment effect – including that resisting temptations might (1) “self-signal” information about individual’s own resolve or (2) create prospective risk of cognitive dissonance. Individuals who are subject to what we call “reactive incentives” have superficial incentives to accept a temptation and deviate from some pre-existing goal. But the process of resisting the temptation may cause these individuals to be less likely to subsequently deviate from that goal. We identify two broad categories of reactive incentives: reactive carrots and reactive sticks.

This article tests the causal impact of reactive incentives in a field experiment at a University of Amsterdam gym where new subscribers were randomly assigned to one of several groups. “Temptation” group members were made one-time monetary offers of varying size to quit the gym.

None of the temptation group subjects accepted the offered compensation to quit the gym. Subjects who were offered a moderate reactive carrot (a full refund plus a cash payment equaling 10% of their initial subscription price to quit) were statistically more likely to visit the gym, to resubscribe, and to earn higher post-treatment grades. Even though the foregone financial opportunities are sunk, they nonetheless affect our subjects' future behavior. Consistent with the reactive stick hypothesis, we also observe that new subscribers who were exposed to unpleasant weather conditions during their first week of membership were more likely to subsequently visit the gym than new subscribers who did not have to initially confront the reactive stick of bad weather.

This article explores a range of settings where policy-makers might deploy reactive incentives to beneficially enhance self-control— including smoking cessation programs, payday lending, college completion and retirement savings.

Microeconomics Seminar

Nathan Chan, University of Massachusetts Amherst:

On generosity in public good and charitable dictator games

Abstract:

We examine the relationship between generosity in charitable dictator games (CDGs) and public good games (PGGs). We construct a novel supergame that subsumes both as special cases and present experimental subjects with different blends of CDG and PGG tasks. Generosity in the CDG and PGG are only weakly correlated, in spite of close experimental control on confounding factors. We furthermore demonstrate how underlying preferences shape these behaviors, revealing important distinctions between preferences for charity and public good provision. Our findings have implications for the generalizability of existing experimental results that rely upon these games.

ACTIVITIES OF DEPARTMENT MEMBERS

New Publications

- **Groom, B., Drupp, M. A., Freeman, M. C., & Nesje, F. (2022)**, “The future, now: A review of social discounting”, *Annual Review of Resource Economics*, 14, 467-491.

The next EconNewsletter will be published on Monday, November 7, 2022.

Editorial deadline: Friday, November 4, 2022.

EconNewsletter

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