

NBER 40th Annual Conference on Macroeconomics – Discussion Summaries

Credit Scores and Inequality Across the Life Cycle

Authors: Satyajit Chatterjee, Dean Corbae, Kyle Dempsey & José-Víctor Ríos-Rull

Discussants: Stefania Albanesi, Kyle F. Herkenhoff

Gabriel Chodorow-Reich opened the conversation by requesting that the authors elaborate on their decision not to let taste shocks go to zero, referencing Kyle Herkenhoff's discussion.

Kyle Dempsey responded by noting that, in the framework of the paper, there is a tension between unobserved heterogeneity in agent types and the noisiness of observed behavior. The authors intentionally avoided letting taste shocks go to zero to preserve the partial pooling nature of equilibrium; full separation would undermine the fundamental learning process central to the model. He noted that the variance of these shocks influences the speed at which lenders can learn about borrowers and that this is empirically disciplined using data in their 2023 *Econometrica* paper. Dempsey also noted that taste shocks interact with the marginal value of wealth by expanding an agent's budget set—this could be interpreted as greater patience or flexibility and helps to clarify the incentives underlying borrower behavior.

Dean Corbae added that the inclusion of taste shocks dramatically improved the model's computational performance—reducing computation time from weeks to minutes. This gain enabled estimation of key parameters, including the variance of shocks, as demonstrated in their *Econometrica* paper. He clarified that while the model allows for reducing these variances to explore their implications, the authors take a stand on empirically estimated values within this work.

Further responding to Herkenhoff's discussion, Satyajit Chatterjee provided additional insight on information tracking in the model. He explained that in the absence of centralized credit registries, the market discovers other ways of informing lending and borrowing. One example of this is relationship lending, in which all information remains private between banks and borrowers. He emphasized that the paper aims to explore how increased behavioral tracking and public reporting of credit activity allows for more separation among borrowers, which in turn amplifies inequality. He acknowledged the technical issues raised regarding multiple equilibria, particularly those arising around default timing, and noted that extreme value taste shocks were necessary for computational tractability and equilibrium selection. Without them, the model either collapsed or became intractable.

Dempsey acknowledged Herkenhoff's point that income is unobserved and possibly what lenders are learning about. While the current paper does not model that explicitly, the framework is adaptable and capable of addressing that learning channel. In response to Stefania Albanesi, Dempsey highlighted that the paper offers insights into how improvements in information technology may alter reputational incentives in ways that amplify inequality. The authors see this as a promising direction for future empirical exploration using the model.

John Leahy followed up by asking for a one-line intuition on how the model's setup rules out multiple equilibria.

Dempsey answered that the model prevents coordination on alternative equilibria because every feasible action is taken with positive probability, and because the feasible set is the same across unobservable types.