

## Bankruptcy Resolution and Credit Cycles

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*Discussants: Dean Corbae, Carola Frydman*

Valerie Ramey opened the discussion by pointing out that the appendix shows statistically and economically significant asymmetries between a credit boom and a credit bust, especially for the first two years after the shock. She suggested testing for asymmetries using the method developed by Ben Zeev, Ramey, and Zubairy and discussing the results in more detail in the paper's main text.

Yueran Ma thanked Valerie Ramey for the comment and agreed with her. However, she added that the literature has focused on credit booms generating damages, which is the paper's focus. For this reason, asymmetries are not a central discussion in the paper.

After, Frederic S. Mishkin pointed out that weaker institutions imply lower growth for a country, as is well known, and larger effects regarding booms and busts, which is the paper's novelty. He also added that bankruptcy data could better describe the quality of institutions than the rule of law measure used in the paper.

Riccardo Reis observed that the paper takes booms as given to see whether the consequences of a crash depend on bankruptcy law. However, from an ex-ante perspective, bankruptcy law will likely affect why there was a credit boom in the first place, and what were its drivers. This opens up exciting questions for future work: Does better bankruptcy law lead to fewer or more booms? Is the misallocation of capital during booms affected by bankruptcy law? Can bankruptcy law explain whether credit mostly goes to households or firms?

Yueran Ma replied, commenting that these are interesting questions. She added that, from an ex-ante perspective, countries with better bankruptcy laws have more debt. She also pointed out that bankruptcy laws have heterogeneous effects across sectors. For example, preliminary evidence suggests that the non-tradable goods sector, the main driver of credit booms, is the most affected by bankruptcy laws.

After that, Alan Auerbach pointed out that the paper measures the quality of bankruptcy law by how likely a firm with a positive going-concern value is to be restructured rather than liquidated. However, it is also important to determine how likely a firm with a negative going-concern value is to be liquidated. In this case, liquidation is the efficient outcome, and restructuring is inefficient. He further added that institutions should also address this inefficient outcome.

Yueran Ma replied that, generally, the liquidation value of fixed assets is about thirty-five percent that of the replacement cost. Furthermore, a typical firm's continuation value is double the liquidation value even in Chapter 11 bankruptcy. She also added that some data exist for the efficiency of liquidation, and empirically the efficiency of restructuring plays a more important role for explaining macroeconomic outcomes following credit booms.

Gabriel Chodorow-Reich commented that the authors show that countries with more efficient bankruptcy laws have more cash flow based lending rather than asset-based lending because creditors can recover their lending through the bankruptcy process. Hence, he pointed out that it is empirically challenging to disentangle whether the results in the paper should be thought of as keeping everything fixed except bankruptcy law or varying the financial system and the credit contracts, given that these variables correlate with bankruptcy law.

Laurence J. Kotlikoff commented that understanding how long machinery is kept unutilized during the bankruptcy process is crucial to estimating the effects of bankruptcy on credit cycles.

Finally, Martin Eichenbaum pointed out that intangible capital is becoming more relevant. Furthermore, the consequences of bankruptcy law on intangibles are still an open and interesting question that should be considered in future works.

Yueran Ma agreed with Martin Eichenbaum. Returning to Alan Auerbach's comment, she added that this also points to why restructuring is usually better than liquidating for the typical firm. Finally, Yueran Ma thanked the discussants and participants for the useful comments.