

Report on

## **Credit Disruptions and the Spillover Effects between the Household and Business Sectors**

The paper uses a DSGE model to investigate the role of credit constraints on labor income, household demand, and GDP. Credit is generated by household heterogeneity: some households are patient and therefore lend to both impatient (and financially constrained) ones and entrepreneurs. Borrowers of both categories face collateral constraints which can be tightened unexpectedly. This is how credit disruption is defined. The model includes a nominal rigidity, conventionally associated with monopolistic competition in the final consumption good sector. The author finds that the presence of financially constrained households amplifies the adverse effect of credit disruptions in the business sector. The main channel of spillovers is in all cases the labor market and the labor income it generates.

The paper makes an effort to aggregate credit providers and credit consumers in such a way that the studied collateral constraint effects are represented sufficiently parsimoniously. Particularly, banks and money are left out of the analysis completely. Further, most elements of the model are defined in a standard way, which would ideally allow the reader a useful comparison with, and a retrospect view on other, more disaggregated, DSGE models with credit frictions known from the literature.

However, when I say “most elements of the model”, I am unable to include one key element that makes the DSGE-with-financial-frictions literature worth its name. Namely, agents in the presented model give and take loans, but never default on them. The whole paper text gives the impression of the author either forgetting about the default possibility altogether or ignoring it in view of the ubiquitous technical problem of the whole DSGE modeling discipline related to handling defaults in the steady state. In any event, none of the terms “default”, “loss” or “risk” appear in the text even once. The reader is bound to ask why are agents required to observe collateral constraints if recourse to collateral is not counted on.

Not only default risk is absent. There are no explicitly defined uncertainties or randomness anywhere in the model, so that it is unclear why one uses expectation operators.

With regard to the main line of argument of the paper, the advantage expressed by standard definitions of agents and interactions becomes the reverse side of its weakness. Indeed, in a default-free credit environment, an ad hoc collateral constraint is imposed on some agents, so that the severity of this constraint impacts on investment, income and GDP. Well, what else would one expect if not that, same as an amplified credit tightening effect if one lets more credit-constrained agents in? Has the author given one single argument that the outcome may, against naïve common sense, be different, but some specific assumptions of the model guarantee that it is not?

In the matter of the particular phenomenon the paper focuses on, I can understand how the decisions of a financially constrained (by restriction (8) on p. 7) household can function as well as I can figure out how someone who does not borrow (equations (1)-(5)) operates. But, can a borrower, as defined in 3.1, albeit not constrained by (8), have a well-defined behavior? Will not such a household prefer to engage in a Ponzi game? Can such a household exist simply on the basis of a transversality condition? More generally, in what relation would a

standard transversality condition be with respect to (8): is it more restrictive, less restrictive or simply does not allow an ordering?

Among other questions I faced while reading is the following. Is the division of households into constrained and unconstrained an assumption or a theorem? If the former, than it does not matter much if the savers receive a shareholder income or have a low time preference rate: they are simply mandated to save and lend. If the latter, one needs a proof. That is, given two groups of households with exogenously different endowment (dividend) streams and discount factors, is it true that one group will always be a lender to the other and the roles will not be reversed under any circumstances?

On a related note, why is it important that savers' and borrowers' labor inputs are imperfect substitutes?

One could continue but, personally, I doubt whether further detailed comments would be warranted at the present stage. In my opinion, conceptual and technical weaknesses of the paper mentioned above do not allow it to be published as a journal article.