

I would like to thank the anonymous referee for the comments and suggestions on an earlier draft of this discussion paper.

The review of literature is a bit scholastic in sec. 1, and rather confused in sec. 2: are we discussing Basel III or bank regulation in general? (see paragraph starting with "Third, the design of").

REPLY: Thank the anonymous referee for this comment. I have realized this is not a convincing expression and will rewrite this part to solely focus on the liquidity coverage ratio (LCR).

Moreover saying that no macroeconomic model has ever taken into account the spillovers between the real and the financial sector is totally wrong, since such spillovers are one of the most important building blocks of Keynesian theory.

REPLY: As to the statement of the spillover between the real and financial sector, I try to point to the fact that the current macroeconomic models, in particular DSGEs, cannot incorporate and model the financial factors in a very meaningful way (Tovar 2009; Bean 2010). Therefore, they are not well suited to describe this dynamic feedback process between the banking sector and real sector. Especially, this feedback is triggered and originated by banking regulation, a pure financial policy.

Beyond that, the main problem is that, given the way these two sections are written, it's not possible, for somebody who is not expert in the topic and/or does not know well the literature in advance, to grasp with clarity what is the original contribution of the paper.

REPLY: Thanks for comments. I will make necessary adjustments to illuminate what have not been sufficiently clear in these parts so that it would be more understandable.

(ii) Is the analysis correct?

The author assumes a set of strongly simplifying assumptions, such as: 1. the CB behavior is very restricted: no policy rate setting, no liquidity provision; 2. each firm is endowed with a constant amount of fixed assets, thus there is no real capital accumulation; 3.

uniform random matching is not a realistic matching protocol. Although 2 and 3 might still be acceptable, 1 in my view it is not since this is a policy oriented paper.

REPLY: In my opinion, the liquidity coverage ratio is a banking regulation, which constrains or potentially constrains the bank's activities whether the central bank operates or not. In other words, how the monetary policies interact with the banking regulations is another research topic.

What is more important, there are many obscure points in the way the model is presented:

1. Consumption flows two times to firms according to table 2, line 10, and eq. (2)

REPLY: Consumption flow is taken into account only once in each period. The consumption flow referred in Equation (2) is the household's consumption at time t-1. Rather, the consumption in line 10 of table 2 denotes the consumption at time t.

2. What do firm invest in if capital is constant?

REPLY: The investment is just an expenditure and in turn an income of the firm, which can be considered as flow circulation within the firm sector making the mode self-consistent. I don't think that allowing for the law of motion of firm's capital will lead to qualitative changes in our results. In addition, this redundant setting may make it difficult to isolate and explain the results.

3. How is the wage fund W_t determined by firms?

REPLY: It's determined by Equation (3), a fraction of the firm's income consisting of consumption and investment in last period.

4. How is occupation and real production determined by firms?

REPLY: In connection with the reply to Question 2, in order to model a credit-driven economy, I simplify the real production process, which just takes one time period, i.e., Step 8.

5. What about interest rates?

REPLY: The interest rate just increases the repayment flow in our model and does not affect our results fundamentally. Indeed, our results are rooted in the relationships among flow and stock variables under the integrated stock-flow consistent (SFC) framework and banking regulation constraint. Introducing the interest rates may affect the demand and supply of credit, i.e., the behavior of firms and banks or, more broadly, the credit market condition, none of which alters the SFC framework and mechanics of the LCR.

6. The author should provide a complete list of the parameters of the model since some of them, e.g. those occurring in eq. (9) but also others, are missing from tab. 3.

REPLY: I am very grateful for these detailed and useful comments. I will provide those missed parameters in the revised version.

7. eq. (9) lacks an explicit justification

REPLY: Thanks for comments. Equation (9) is consistent with the definition of the net cash outflows given by the document of the liquidity coverage ratio. The original definition and the explanation of this calculation will be added to the revised manuscript.

8. The description of step 9 on p. 15 is unclear, the equations are needed

REPLY: Thanks for comments. An equation will be developed to explain this step in the revised version.

9. wealth A_{ht} is totally undefined, and obscure the reason why households should withdraw from their deposits at this stage

REPLY: Households' wealth A_{ht} equal the deposits plus cash they are holding. According to the amount of orders given to the firms in Step 8, the households have to hold sufficient cash to pay for them owing to the cash in advance constraint. If not, households will withdraw from their deposits.

10. The description of step 9 must be expanded with many more details in order to make it understandable

REPLY: I thank the anonymous referee for this suggestion. This step will be rewritten and expanded in the revised version.

Until these points are addressed (especially 2-5), the structure of the model remains obscure and thus it is impossible to assess the meaningfulness of the results of sec. 4.

REPLY: The anonymous referee pays much attention to the real sphere of this model and the price of credit. Nevertheless, the core of our model is the banking and credit process rather than the real sector and production process. Moreover, the interplay between stocks and flows of credit in compliance with the SFC framework and LCR governs the credit dynamics instead of the price of credit, the interest rate. The main role of the firm is the demander of bank credit. And the firm is bankrupt in case of failing to pay off debt. Our model with such simplified settings of the real sector has shown the innovative feedback process.

(iii) Is the paper readable?

Even if the English might be formally correct (which is not always the case, to be honest), many sentences are quite unclear (e.g., p. 4, "It is not the answer to which theory is capable of validly modeling a macroeconomic system with financial factors."). I suggest that a careful rereading with the purpose of a stark simplification of writing is required to make the paper readable enough for publication.

REPLY: I am very grateful for these detailed and useful comments. In the revised version, I will improve the writing quality significantly.

References

Bean, C., 2010. Joseph schumpeter lecture the great moderation, the great panic, and the great contraction. *Journal of the European Economic Association*, 8(2–3), pp.289–325.

Tovar, C., 2009. DSGE models and central banks. *The Open-Access, Open-Assessment E-Journal*, 3, pp.1–31.