Welfare and Spending Effects of Consumption Stimulus Policies, QE MS 2442

Referee report

Summary of the paper

This paper compares the effects of different fiscal stimulus policies (UI extensions, stimulus checks to all households below an income threshold, a temporary payroll tax reduction) on consumption demand and consumer welfare during recessions. The framework is a permanent-youth, partial-equilibrium model of consumption and savings with rich household heterogeneity (with differences in initial incomes, permanent differences in education and patience, temporary differences in employment status and income). Incomes and employment risks are exogenous to the individual (so there is no labor supply or search), wages and interest rates are fixed. Recessions are modelled as an unforeseen, persistent doubling of the unemployment rate and increase in labor market risk. Demand effects are captured by a recession-only 'consumption externality' (an increase in incomes by a fraction of the deviation of aggregate consumption from steady state, as in Krueger et al (2016)). The model is calibrated using Norwegian data (to pin down 'splurge' consumption, or the fraction of income consumed within the period when it is paid, from data on intertemporal MPCs by wealth in Fagereng et al (2020) and US data (for the rest of the parameters). The authors find that a dollar spent on an extension of UI from 2 to 4 months or on stimulus checks of 1200 USD stimulate demand about 1/5 more than a dollar spent on a two-year reduction in payroll taxes. This is because the latter benefits only employed households (with lower MPCs) and is partially paid after the recession ends (when there are no demand effects). The welfare effect of UI extensions in recessions (relative to that in normal times, adjusted for the fiscal cost) is substantially more positive ($>$ 1 bp of permanent consumption) than that of other policies, as UI extensions are paid to high-marginal utility households only.

Overall assessment

The question of the paper ("Which fiscal stimulus is most stimulative for demand and welfare during recessions?") is clearly relevant and interesting. Most

existing papers focus on single policies, with the exception of Broer et al (2023). The framework to answer the question is somewhat restrictive (as it abstracts from any general-equilibrium effects of policies on labor-market risk, wages, and interest rates). Other papers do allow general-equilibrium effects and find them to be important (Kekre 2022, Broer et al 2023). What sets the model apart from the literature is the 'splurge' consumption, and the rich heterogeneity, with education-dependent discount factors to capture group-specific wealth distributions. The calibration is overall convincing, but some choices could be motivated better. The results are interesting, speak to the question and go beyond the current literature, including Broer et al (2023), who do not study welfare effects. The paper reads well, but could be shortened in some places. In short, the contribution of the paper lies in the rich household block including 'splurge' consumption, the comparitive focus, and the welfare analysis.

Essential points

1. *Partial equilibrium* The main drawback of the analysis is the partial-equilibrium nature. Kekre (2022) and Broer et al (2023), in contrast, seem to find general-equilibrium effects to be important. I think the PE approach still gives interesting results, but the authors should be more up-front about it (the word "partial equilibrium" appears first on page 11), and discuss its shortcomings.

2. *Tax policy* Do taxes rise eventually to pay for the policies? I don't think so, but this is extremely unclear. "Should" appears four times in the discussion of the financing of government policies. The authors should introduce an explicit rule for tax policy (even if paid very far in the future), as this may matter for consumption of the Ricardian / high-wealth households.

3. *'Splurge' and utility* The implications of splurge consumption should be discussed more in detail. Take, e.g., the assumption that households gain utility only from post-splurge consumption. This implies that, essentially, the model is equivalent to an alternative where all incomes are taxed by 30 percent (and immediately go into government consumption). But doesn't this increase further, and mechanically, the effect of transfers to the low-wealth unemployed (who consume post-splurge income, increasing marginal utility by $1/0.7=1.42$ relative to that from total income) relative

to high-wealth households (who consume permanent income from financial wealth)?

4. *Calibration of the 'splurge'* I find the calibration strategy, to estimate the 'splurge' on Norwegian data (plus a US liquid-wealth distribution...), and then calibrate the rest to US data only, confusing - also since the authors then compare their final average annual MPC to an estimate for Norway. I would appreciate a clear motivation for why we need the Norwegian data targets at the beginning of Section 3.1 - I guess it's because we don't have estimates for MPCs by wealth for the US. An alternative, perhaps cleaner, calibration would be to US data only with some sensitivity analysis for alternative values of the splurge-fraction. In any case, I would appreciate a (perhaps only verbal) comparison to the more common 'share-of-hand-to-mouth-agents' calibration (that doesn't capture wealthy high-MPC agents but may have similar demand properties)

Additional comments

i. *Clarification of the calibration* I didn't understand if the model is for households, or individuals, and what data target pertains to which of the two (the text uses both words, although "household" dominates).

ii. *Additional policies*: To give the payroll tax cut a better chance, couldn't the authors consider a "payroll tax cut as long as the recession lasts"? And I don't understand why the authors don't consider an increase in UI generosity, which also is a common policy.

iii. *Motivation of modeling choices* Why the two-year horizon for the payroll-tax reduction? Consumers expect this policy to continue with 50 percent probability if the recession continues for longer than 2 years. Why?

iv. *Consumption drop upon unemployment* The authors should report the drop in consumption upon unemployment benefit expiry, and compare it to the estimates in Ganong et al (2019).

v. *Why the quarterly calibration?* This implies that the unemployed are at least unemployed for three months, which is high relative to U.S. job-finding rates. The unemployment-rate targets should be adjusted for that.

vi. *Job-finding rates* Why the homogeneous job-finding rates across education groups and duration? It seems unnecessary (since the model keeps

track of individual duration and education) and probably produces counterfactually few low-skill long-term unemployed.

Additional References

- Broer, Tobias, Jeppe Druedahl, Karl Harmenberg and Erik Öberg, "Fiscal stabilisation 2.0" (this may be an old title), mimeo.