Heterogeneity of the Marginal Propensity to Consume: Evidence from the German SOEP

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1 Extended Abstract

Household consumption represents the major share of gross domestic product in virtually all countries. Thus, knowledge on how consumers respond to unexpected income changes – the marginal propensity to consume (MPC) – is of particular relevance for policy makers evaluating the macroeconomic impact of tax and labor market reforms or countercyclical policies.

Particularly since the recent global financial and economic crisis, there is renewed interest in evaluating the impact of fiscal stimulus packages on household consumption. Such income stabilization schemes have been applied for example in the United States and have been found to have a significant impact on contemporaneous private consumption (Parker et al. 2013; Broda and Parker 2014). These results contradict the standard economic life-cycle model (Modigliani and Brumberg 1954) which postulates that the MPC is close to zero for transitory changes in the short run as consumers smooth their spending over life time.

Another empirical study by Jappelli and Pistaferri (2014) based on Italian survey data finds that the MPC is not only far above zero, but also that the MPC significantly falls with households' current income and financial net wealth. This heterogeneity again is inconsistent with the standard representative agent model, where MPCs are assumed to be homogeneous. It is, however, consistent with saving being a luxury good (Keynes'

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fundamental psychological law), a precautionary motive (Kimball 1990) or credit constraints (Deaton 1991) of low income / low wealth households.

In the present paper, we empirically test the heterogeneity of the MPC based on German data. We follow the approach of Jappelli and Pistaferri (2014) by exploiting a hypothetical question asked in the German Socio-economic Panel (SOEP) that reveals information about the MPC of individuals to an unexpected transitory income shock. Using a two-limit tobit estimator, we regress this MPC measure on their income and wealth position (as measured by cash-on-hand quintiles) as well as other socioeconomic controls. We can confirm the results found for Italy. The average MPC in our sample is about 0.34, significantly different from zero, thus rejecting the life-cycle hypothesis. We also find a significant heterogeneity of the MPC across cash-on-hand quintiles, with a difference in the MPC between the highest and lowest cash-on-hand quintile of about 0.16. These effects are only about half as strong as in the Italian sample. We discuss several explanations of this weaker effect in our sample and conclude that deficiencies of the hypothetical survey question at hand may drive the results. In an additional step, we try to identify the causes of MPC heterogeneity. Employing different proxies for the precautionary motive and credit constraints, we find plausible positive effects of both; however, including these controls does not alter the coefficients of the cash-on-hand quintiles, which might be explained by saving being a luxury good.

As a preliminary policy conclusion out of this partial equilibrium analysis, our results imply that targeted transfers to low income / low wealth households would be more efficient in stimulating aggregate demand than lump-sum transfers. Moreover, a balanced-budget redistributive policy would have a positive, yet moderate net effect on aggregate demand.

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