Essays on Consumption - From Micro to Macro
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The Lucas critique proposed that in order predict the effects of macro policy changes we need to understand behavior and incentives at a micro level. However, there is significant evidence that the consumption behavior seen in standard microfounded macro models is strongly at odds with the observed micro data, drawing into question whether their macro implications can be trusted. My aim in this dissertation is to empirically identify the aspects of consumption behavior that are most informative for macroeconomics, and help build a new wave of models that match these important facts.

1 Consumption Heterogeneity: Micro Drivers and Macro Implications (job market paper)

This paper aims to test the microfoundations of consumption models and quantify the macro implications of heterogeneity. We propose a new empirical method to estimate the sensitivity of consumption to permanent and transitory income shocks for different groups of households. We then apply this method to administrative data from Denmark. The large sample size, along with detailed household balance sheet information, allows us to finely divide the population along relevant dimensions. For example, we find households who stand to lose from an interest rate hike are significantly more sensitive to income shocks than those who stand to gain. Following a one percentage point rate increase, we estimate consumption will decrease by 26 basis points through this interest rate exposure channel alone, making it substantially larger than the intertemporal substitution channel that dominates in representative agent New Keynesian models.

2 Time Aggregation in Panel Data on Income and Consumption

In 1960 Working noted that time aggregation of a random walk induces serial correlation in the first differences that is not present in the original series. This important contribution has been overlooked in a large recent literature analyzing income and consumption in panel data. This paper takes Blundell, Pistaferri, and Preston (2008) as an example and shows how to correct for this problem. I find the estimate for the partial insurance to transitory shocks, originally estimated to be 5%, is equal to 24% when corrected for time aggregation. This estimate is much closer to estimates from the literature that uses natural experiments to estimate the marginal propensity to consume out of transitory shocks.

3 Disciplining HANK with Empirical Consumption Behavior (in progress)

In a model with no investment and one asset, Auclert (2018) identifies a set of sufficient statistics to quantify the size of monetary policy transmission channels. I investigate to what extent these statistics are useful in a Heterogeneous Agent New Keynesian (HANK) model with illiquid investment, and use them to discipline such a model.