The Procyclicality of Consumer Credit

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Extended Abstract

Between 1990 and 2007, the ratio of total consumer credit to GDP increased from 7.1% to 17.8%. Yet surprisingly, the business cycle properties of consumer credit are widely ignored as DSGE models studying the relation between financial markets and the macroeconomy mainly focus on the dynamic effects of mortgages (Iacoviello, 2005) or corporate debt (Bernanke et al., 1999). Standard consumption smoothing arguments would suggest countercyclical credit movements. In contrast, Nakajima and Ríos-Rull (2014) and Ludvigson (1999) show that the unconditional correlation between credit, output and consumption is positive.

While these studies take unconditional correlations between credit and output aggregates as empirical motivation, our focus lies on conditional credit responses given exogenous innovations. We select two shocks whose exogeneity is uncontroversial in the literature, the tax changes constructed by Romer and Romer (2010) and the TFP series obtained from Basu et al. (2006). From estimating VARs with quarterly US data, we find that a tax reduction and TFP shock, lead to a positive comovement between output, durable consumption and consumer credit which stands in sharp contrast to a consumption smoothing incentive.

To replicate our empirical findings, we integrate consumer credit into a theoretical model with financial frictions following the housing (Iacoviello, 2005; Justiniano et al., 2014) and durable consumption (Monacelli, 2009) literature. The model economy is populated by two households, different in their willingness to postpone future consumption,
which creates borrowers and lenders. As a central element, impatient agents face a bor-
rowing constraint such that credit is restricted to their stock of durables.

We estimate key parameters of the model and show that the theoretical responses can
account successfully for the empirical findings. The income tax reduction and the increase
in TFP lead to an expansion followed by a loosening of the borrowing constraint such
that consumer credit moves procyclical.

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