Aggregate Fluctuations, Consumer Credit and Bankruptcy*

David Fieldhouse, Igor Livshits, James MacGee

August 3, 2012

Abstract

There are large countercyclical fluctuations in U.S. bankruptcy filings and real credit card interest rates, while unsecured credit is procyclical. This paper documents the facts and asks whether the predictions of incomplete market models with bankruptcy are consistent with these facts. We introduce aggregate fluctuations into a heterogeneous agent life-cycle incomplete market model with a U.S. style bankruptcy regime. Household borrowing is priced by competitive financial intermediaries who can observe households' earnings, age and current asset holdings. Aggregate fluctuations change the probability of persistent shocks to household earnings, with the likelihood of negative shocks increasing in recessions. This leads to asymmetric effects of credit pricing on different household types over the business cycles, since interest rates vary endogenously with borrowers' default risk. The model is calibrated to match key features of the U.S. economy and bankruptcy system. When the only source of aggregate uncertainty is income fluctuations, the calibrated model dramatically understates the volatility of bankruptcies and borrowing interest rates, and generates countercyclical borrowing. The increase in aggregate debt during recessions is comes primarily from the extensive margin, as more households choose to borrow as a result of negative income shocks. The introduction of intermediation shocks during recessions reduces the gap between the model and the data, as we find that intermediation shocks can generate pro-cyclical borrowing and increase

*Fieldhouse: Department of Economics, University of Western Ontario, Social Science Centre, London, Ontario, N6A 5C2 (e-mail: dfieldho@uwo.ca); Livshits: Department of Economics, University of Western Ontario, Social Science Centre, London, Ontario, N6A 5C2 (e-mail: livshits@uwo.ca) and CIFAR; MacGee: Department of Economics, University of Western Ontario, Social Science Centre, London, Ontario, N6A 5C2 (e-mail: jmacgee@uwo.ca). We thank for helpful comments. Livshits and MacGee acknowledge financial support from SSHRC and from the Economic Policy Research Institute. Fieldhouse acknowledges financial support from SSHRC.

the volatility of both filings and interest rates. However, the benchmark model still significantly understates the volatility of bankruptcy filings.

Keywords: Consumer Bankruptcy; Uncertainty; Credit Markets; Stigma.

JEL Classifications: E21, E44, G18, K35