

## Self-Fulfilling Credit Cycles

(Leo Kaas, with Costas Azariadis and Yi Wen)

**Abstract:** In U.S. data 1981-2012, unsecured firm credit moves procyclically and tends to lead GDP, while secured firm credit is at best acyclical. In this paper we develop a tractable dynamic general equilibrium model in which unsecured firm credit arises from self-enforcing borrowing constraints preventing an efficient capital allocation among heterogeneous firms. Capital from less productive firms is lent to more productive ones in the form of credit secured by collateral and also as unsecured credit based on reputation which is a forward-looking variable. We argue that self-fulfilling beliefs over future credit conditions naturally generate endogenously persistent business cycle dynamics. A dynamic complementarity between current and future borrowing limits permits uncorrelated sunspot shocks to trigger persistent aggregate fluctuations in debt, factor productivity and output. We show that sunspot shocks are quantitatively important, accounting for a substantial part of the volatility in firm credit and output.