

# Ponzi and zombies: the risk of over-indebtedness of the private sector

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## Extended abstract <sup>1</sup>

Financial and economic crises are not always the same, and only some of them have a radical and persistent impact on the economic system and on the well-being of the community. For this reason it is important to understand why only some episodes of crisis generate prolonged and systemic recessions. In this respect, [2, 3] has introduced the idea that in periods of stability, financial actors tend to increase their risk exposure, moving from a stable hedge-dominated structure to an unstable one characterised by speculative financial position and Ponzi: stability would be destabilising.

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As a response of the Great Recession and of the most recent Covid-19 economic crisis, several central banks opted for a liquidity injection as a stimulus for the economy and to prevent systemic collapse. However, although not with the same intensity, these non-conventional expansive monetary policies had been pursued also during the period of “tranquility” between 2014 and the beginning of 2020, facilitating the access to credit over a wide spectrum of solvability degrees.

Starting from the three different relationships presented by Minsky (income-debt-hedge, speculative and Ponzi) for financial units, we develop a simple partial equilibrium agent-based model in which firms, the banking sector, the real and the financial side of the economy interact. This theoretical framework allows to extend the migratory microsimulation models based on the E(ntry)-S(tay)-L(eave) scheme of [1] by considering the economic system, the business cycle and by simulating the heterogeneity in firms’ creditworthiness.

### **Keywords**

Financial instability; Credit worthiness; Agent-based model; Real-financial interactions; Minsky.

### **References**

- [1] S. Landini, M. Uberti, S. Casellina, Credit risk migration rates modelling as open systems II: A simulation model and IFRS9-baseline principles, *Structural Change and Economic Dynamics*, **50**(2019), 175–189.
- [2] H. Minsky, *John Maynard Keynes*, New York: Columbia University Press, 1975.
- [3] H. Minsky, *Can “it” Happen Again? Essays on Instability and Finance.*, New York: Sharp, 1982.

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