## HOW BANK LENDING AFFECTS FIRMS' LIFECYCLE: A MARKOV CHAIN APPROACH

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In the last decade, a high proportion of inefficient firms has been observed in the most advanced economies, contradicting the firm dynamics theory that states that economically unviable firms exit the market. Recent research claims that survival of 'zombie' firms is related to banks' lending behaviour, as financially stressed firms are allowed to survive due to the credit granted to them.

This dissertation analyses the impact of additional loans over the probability for the Portuguese firms to move across *profitable*, *non-profitable* and *exit* states. In particular, the probabilities for a *non-profitable* firm to remain *non-profitable* or turn to *profitable* or *exit* are analysed. Using firm and bank level information for the 2011-2015 period, an autoregressive multinomial logistic model is estimated to describe the firms' dynamics as an absorbing Markov chain, conditional on the existence of an additional bank loan, and controlling for other covariates.

The results contradict the hypothesis that banks' lending behaviour is keeping 'zombie' firms from exiting the market. *Non-profitable* firms that were granted an additional loan during the 2011-2015 period were more likely to recover to the *profitable* state, while having a lower probability of remaining *non-profitable* and keeping a similar probability of *exit*. As the firms' 'zombieness', measured by the probability to remain *non-profitable*, was lower for firms with additional bank loans, this points to a low contribution of banks' lending behaviour for the high proportion of inefficient firms observed in the Portuguese economy.