Decrepit destruction. When firms get old

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(work in progress)

This paper addresses employee ageing within firms. It departs from the recognition that there exist firms that exhibit life-cycles which are tied to the life-cycles of their staff. The observation that mean employee age within a given firm is positively correlated with firm age suggests that there are firms that die from 'senile decay'.
This analyis is empirical by nature, and addresses this problem using large matched employer-employee datasets on the Danish private sector economy which allows to follow firms for up to 34 years.
Two questions will be addressed in this paper:
The first is about the determinants of mean employee age increases. Put differently, it is about the endogeneity of firms' age distributions, an issue that previous studies on age-productivity profiles have largely ignored. I suggest to interpret findings of this part of the paper within a simple investment framework, with re-juvenation being a human capital investment with payoffs depending on the strength of the human capital vintage effect, the expected tenure of newly hired employees, and of course the business environment, and costs being determined by screening expenses and the firm specificity of human capital.
The second question addressed in this paper is about the relationship between mean employee age and firm performance, which will be measured as growth in the number of employees and the firm's exit probability.
Main results of this paper can be summarized as follows:
Mean employee age in a given firm increases with firm age at rates well above the working population average. This finding holds for different occupational groups within the firm, and is most pronounced for employees at the high ranks of the organizational hierarchy. Yearly employee age increases are highest for (but not restricted to) small firms, and for firms for which ownership and control are separated. They are also higher for firms with high productivity relative to the respective industry average. On the other hand, mean employee age increases are highest in low-productivity industries. The pace of the yearly mean employee age increases is accelerating with firm age. It is highest in recessions, i.e. there is no 'cleansing effect of recessions' with respect to human capital. Two tax reforms with impact on the payoffs of human capital investments have the expected relationship with employee ageing within firms.
On average do firms below ten to fifteen years of age grow in terms of the number of their employees, thereafter, employment growth is – dependent on the treatment of outliers- zero or negative. Firms with mean employee age above 45 years are downsizing. Old firms have exit risk increasing with time and exit risk being positively related to the mean age of the staff of the firm. In short, findings agree with the firm life cycle hypothesis.

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