2 The Effects of New Business Formation on Industry Growth[1]

2.1 Introduction

Does new business formation cause economic growth? Much recent research, initiated by Fritsch and Mueller (2004), has been devoted to this question (for an overview of this literature, see Fritsch 2007). Most studies find that long-run (supply-side) effects of new business formation are more pronounced than the direct short-run effects. Fritsch and Mueller (2004) enumerate four categories of these supply-side effects: securing efficiency, acceleration of structural change, amplified innovation, and greater variety of products. All research on this topic to date has in common that it analyzes the short-run and long-run relationship between new business formation and economic development by means of distributed lag models.

This chapter has two goals. First, it aims to distinguish between the different types of long-run supply-side effects. Second, dynamic panel techniques, which have recently resulted in fruitful research into the dynamics of economic growth, are used to model short-run and long-run effects of new business formation.

The remainder of this chapter is organized as follows. Section 2.2 discusses in more detail the two supply-side effects of new business formation — *securing efficiency* and *amplified innovation*. This discussion leads to the formulation of hypotheses to be tested. Section 2.3 describes the data. The estimation procedure is discussed in section 2.4. An evolutionary interpretation of the model will receive particular attention in this section. In section 2.5, results of the dynamic panel techniques are presented. The findings lead to conclusions about the design of policies aimed at promot-

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ing new businesses and some ideas for further research, all described in section 2.6.

2.2 Long-Run Effects of New Business Formation on Growth

There are two prominent explanations for the positive correlation between new business formation and economic development.

One explanation concerns contesting established market positions. In the contestable markets approach, the threat posed by the possibility of new firms entering the market is taken to be a key determinant of existing firms' behaviour (cf. Baumol et al. 1982). Incumbent firms have an incentive to innovate so as to make entry into their market more difficult. Aghion et al. (2004, 2005) present a model of technologically advanced entry. Each potential entrant arrives with leading-edge technology. If the incumbent is less technologically advanced, the entrant will replace the incumbent. If the incumbent is also employing leading-edge technology, it can use its reputation advantage and block entry. In short, an incumbent who is approaching the development of leading-edge technology has a strong incentive to innovate and to keep pace with technological progress as doing so can prevent entry of competitors. However, an incumbent whose technology is out of date — regardless of whether it innovates — will find it difficult to keep pace with technological progress and, presumably, will not be able to prevent entry of leading-edge competitors. Consequently, an incumbent who is very behind the times technology-wise is discouraged from innovation.

The other explanation for the positive correlation between new business formation and economic growth is *amplified innovation*. Theories of endogenous growth in the tradition of Romer (1986) emphasize the influence of research and development on economic growth. For example, research and development can generate new knowledge, which may then be exploited either by its developer or by another business that competes in the same industry (see Mueller 2006b). When the actual developer of the new knowledge does not exploit it, and there are many reasons why it might not wish to (e.g., too risky), the knowledge can still "spill over" and lead to economic growth. One of the most obvious ways this could happen is that the founder of a new business who previously worked for the incumbent business might commercialize the unexploited knowledge or, alternatively, the incumbent could set up a new branch (see Mueller 2006b). Regardless of how spillover occurs, a key assumption (see Acs et al. 2004) is that new