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Internal capital market and the growth and survival of Japanese plants in the United States

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This article examines the growth and survival of foreign plants based on a cross-section of Japanese plants in the United States. Results show that plant turnovers are significantly related to plant age and size in a manner highly consistent with the Bayesian learning model of firm dynamics (e.g. Jovanovic [Econometrica 50 (1982) 649]). They also indicate that financial conditions prevailing at the Japanese parent affect plant dynamics importantly, suggesting the working of internal capital markets across the Pacific. Results, however, are ambiguous with regard to the efficiency of internal capital allocation. *J. Japanese Int. Economies* **19** (3) (2005) 366–385. Aoyama Gakuin University, Graduate School of International Management, Shibuya 4-4-25, Shibuya-ku, Tokyo 150-8366, Japan.

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1. Introduction

It is often argued that Japanese firms are extremely slow in discarding failing operations. The management buzz word "*sentaku to shuchu*" meaning selection and concentration,

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which swept Japan's management community in the late 1990s in the wave of corporate restructuring, is highly suggestive of this problem. It implies that an abundance of non-performing operations, which should have been discarded earlier, is a factor contributing to the lackluster performance of many Japanese companies. However, whether slow selection is a manifestation of this alleged managerial deficiency or an outcome of rational economic processes has not been studied very carefully. Firms can be slow in selecting out operations for economically legitimate as well as illegitimate reasons. For instance, knowing an operation's long-term viability with a high degree of confidence may take time if considerable uncertainty exists with regard to external and internal conditions impacting its performance. Whether in fact Japanese firms are exceedingly inert in reaching a divestment decision, or, more generally, sub-optimally commit themselves to underperforming businesses, is an important yet undervisited question. This study contributes to filling this gap by studying the growth and exit behavior of Japanese firms in the United States.

Though the problem of excessive commitment might be particularly ubiquitous in the management of Japanese firms, the growing literature on the internal capital market suggests that it is not entirely endemic to them. It suggests that the problem commonly arises when "corporate socialism" (Scharfstein and Stein, 2000; Stein, 2001) is distorting a firm's investment and divestment decisions. Firms are said to be socialistic when they are relocating capital internally to finance the growth and survival of failing operations at the cost of more successful ones. Studies, such as Lamont (1997), Lang et al. (1996), Shin and Stulz (1998), Rajan et al. (2000), show that US firms actively cross-subsidize operations in a seemingly inefficient way. Following these studies, this article investigates the growth and survival of US plants in relation to the financial condition prevailing at the Japanese parent to gain insight into the working of internal capital markets across the Pacific.

An important caveat is that mere dependence of plant dynamics on parental financial conditions, though suggestive of subsidization, does not clearly point to the inefficiency implied by socialism. In fact, the internal capital market is efficiency increasing if it is used for "winner picking," where capital is relocated for financing operations that have a solid growth prospect but will be underfunded if operated as a stand-alone unit (Williamson, 1975; Stein, 1997). Claiming inefficiency therefore demands to show otherwise: i.e. it is used more for supporting "losers" rather than prospective "winners." An empirical challenge in this regard is to identify winning and losing plants, since current accounting practices do not require firms to disclose the performance of individual foreign operations. For this reason, in performing the task, I draw insights from models of efficient firm growth and exit pioneered by Jovanovic (1982). At the heart of these models is the assumption that firm success depends on idiosyncratic efficiency, which is ex ante uncertain. Firms grow and exit as they learn about the efficiency through post-entry operations.

A key prediction from the models, which is strongly supported by empirical studies such as Evans (1987a, 1987b), Hall (1987), Dunne et al. (1989), is that the turnover of small firms (plants) is more turbulent than that of large firms (plants): i.e. small firms have a higher exit rate, but, conditional on survival, grow faster. This is because small firms are highly heterogeneous in terms of efficiency. They include both future winners (efficient firms), which grow fast, and losers (inefficient firms) destined to fail, while large firms mostly consist of proven winners. In a later section, I will show that these patterns also characterize the turnover of Japanese plants operating in the United States.