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Reallocation of corporate resources and managerial incentives in internal capital markets

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Abstract

Diversified firms often trade at a discount with respect to their focused counterparts. The literature has tried to explain the apparent misallocation of resources with lobbying activities or power struggles. We show that diversification can destroy value even when resources are efficiently allocated ex post. When managers derive utility from the funds under their purview, moving funds across divisions may diminish their incentives. The ex ante reduction in managerial incentives can more than offset the increase in firm value due to the ex post efficient reallocation of funds. This effect is robust to the introduction of monetary incentives. Moreover we show that asymmetries in size and growth prospects increase the diversification discount.

JEL classification: G31; L20

Keywords: Internal capital markets; Conglomerates; Managerial incentives

1. Introduction

The analysis of the allocation of funds among different divisions of a conglomerate firm is a relatively young topic. Stein (2002b) provides a recent survey. The general theme coming from the empirical literature is that diversified firms trade on average at a discount relative to a portfolio of focused firms in the same industries, as reported by Berger and Ofek (1995), Servaes (1996) and Lins and Servaes (1999). Moreover, the 1980s saw a process of dismantling of diversified firms, driven by the idea that the divisions would be more efficiently managed as stand-alones. But if there is by now a

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wide consensus on the idea that a diversification discount exists, it is much less clear why this is the case.

Stein (1997) has pointed out that internal capital markets can create value in financially constrained firms. In Stein's words, "*Simply put*, *individual projects must compete for scarce funds*, *and headquarters' job is to pick winners and losers in this competition.*" Stein denotes this activity of headquarters in a conglomerate firm as "winner-picking". Contrary to the empirical findings, Stein's model suggests that internal capital market should create value and thus a premium for diversified firms. One possible way to solve this apparent paradox is to argue that the discount of diversified firms is due to misallocation of resources in internal capital markets. For instance, Rajan et al. (2000) find that multi-segment firms allocate relatively more capital to "weak" lines of business than their stand-alone counterparts, and relatively less to segments in "strong" lines of business. Scharfstein (1998) finds that the investment of conglomerate divisions is virtually insensitive to investment opportunities, as measured by the industry q's. Lamont (1997) shows that resource allocation in diversified firms is different from that in focused firms and less sensitive to indicators of investment value such as Tobin's q.

However, the evidence on inefficient allocation of funds has been disputed. Whited (2001) points out that the inefficiency results appeared in the literature may actually be due to the incorrect measures adopted for the investment opportunities of the divisions. She shows that when measurement problems are taken into account, the evidence of inefficient allocation of funds disappears. Chevalier (2000) analyzes the investment behavior of a sample of firms before and after diversifying mergers, finding no evidence of a change in investment behavior. This implies that, if there is inefficiency in the investment behavior of the divisions of conglomerate firms, such inefficiency does not appear to be due to the presence of internal capital markets.

In this paper we argue that in order to explain the diversification discount we do not need to assume any misallocation of funds in internal capital markets. Conglomerates can destroy value even if resources are efficiently allocated. If managers derive utility from the funds under their purview, the possibility of implementing a "winner-picking" policy, while optimizing resources allocation ex post (i.e. after managerial effort has been exerted), reduces managerial incentives to exert effort. Taking away from the manager the cash flow generated by the division has the negative implication of reducing the incentives for division managers to spend effort to generate the cash flow. The reduced managerial incentives can more than offset the gains of reallocating funds to the most profitable divisions. In other words, "winner-picking" is both the bright and the dark side of internal capital markets.

We consider a two-period model with two divisions and a headquarters. Division managers receive private benefits in proportion to the gross return of the division they run. Headquarters maximizes total firm value. In the first period the two division managers have to exert a non-verifiable effort to increase the probability of success of a project already in place. The cash flow generated by the existing project will be reinvested inside the firm in the second period. Before the second period, the headquarters receives a signal on the second period profitability of the two divisions and reallocates funds. When divisions operate as stand-alones, each division reinvests the cash flow generated by the first period project. On the contrary, in the diversified firm