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Essays in Corporate Finance and Labor Economics

by

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ABSTRACT

My dissertation consists of three essays. In essay one, I investigate the underlying sources of gains from takeovers. I show that acquirers significantly reduce investments, wages, and employment in target plants, though output is unchanged relative to comparable plants. Moreover, these changes help explain the merging firms' announcement returns. In essay two, I find that after takeovers, target plants exhibit net decline in wages and employment, especially when target firm’s union membership is high. In essay three, I compare how career concerns affect the real investment decisions. I show that younger CEOs undertake more active investment activities.

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Executive Summary

A large body of work in finance and economics is devoted to understanding the causes and effects of takeovers and restructuring. In my dissertation, I use plant-level data from the U.S. Census Bureau to provide a micro-level view of corporate takeovers and restructuring. In particular, I attempt to address the following three questions: First, how do mergers and acquisitions create value? Second, what role do labor unions play in affecting merger outcomes? Third, how do CEOs' career concerns impact firms' restructuring decisions. I contribute to the existing literature in three important ways: First, I peer inside the black box of firm operations to uncover the detailed changes that are affected by takeovers and are affected by CEO's personal characteristics. Second, I incorporate labor and labor unions into consideration when I analyze the effects of takeovers. Third, I explore the interconnections between product market, labor market, and the stock market, in the context of mergers and acquisitions.

My dissertation is composed of three essays. In essay one, I investigate the underlying sources of gains from takeovers. Though it is well documented that takeovers increase the combined equity value of targets and acquirers, relatively little is known about the sources of such gains. To shed light on how takeovers create value, several studies examine changes in

plant-level productivity and find that takeovers are followed by improved productivity. These studies, however, do not attempt to identify the detailed mechanisms that lead to these changes in productivity. Yet identifying these mechanisms is crucial to both researchers and practitioners to understand what factors influence a merger's success or failure. In addition, surprisingly little empirical evidence exists on the direct relation between announcement returns and productivity gains or losses. Determining whether such a relation exists is important because, if so, it suggests that the stock market is not a sideshow, but rather it embeds information about the underlying efficiency changes. The goal of this essay, therefore, is to uncover the sources of gains from takeovers and to relate them to the cross-sectional differences in announcement returns.

In this essay, I uncover the underlying sources of gains from takeovers in two steps. First, by examining changes to output levels, input choices, and plant closures after a takeover, I identify some detailed channels through which the acquiring firm enhances the target firm's productivity. I show that, relative to comparable plants, capital expenditures, wages, and employment all experience substantial declines while output remains constant. Essentially, the acquiring firm produces the same amount of output using less input. This indicates that increases in productivity stem primarily from acquiring firms' more efficient use of capital and labor. I also find that employee layoffs are concentrated mostly among non-production workers in target plants, which supports the hypothesis that acquirers reduce management slack and transfer their own management know-how. Second, I relate these underlying efficiency gains to the cross-sectional differences in announcement period stock returns. The results show that post-takeover improvements in productivity are positively associated with the total synergy gains, especially when the target is relatively large compared with the acquirer. Ceteris paribus, compared with acquiring a target at the 25th percentile of productivity improvements, acquiring a target at the

75th percentile increases the combined three-day announcement returns by 1 percentage points. If the target's pre-takeover market value is half of the acquirer's, such a change increases the combined returns by about 2.5 percentage points. The economic significance of the point estimates is considerable given that the sample median of the combined return is about 3.1%.

I next investigate the gains to the target firm and the acquiring firm separately. Prior literature consistently documents that targets receive high offer premiums from acquirers and capture virtually all of the joint gains. Unfortunately, studies have yet to find specific economic gains that warrant such high premiums. In this study, I hypothesize that the offer premiums are related to the ultimate benefits to acquirers, with target performance improvements under new management being an important part of these benefits. I examine the relation between targets' productivity improvements and the offer premiums they receive and find that target firms with greater post-takeover productivity improvements receive higher premiums from acquirers. Lastly, I look at the acquirers' own announcement returns. I show that targets' improvements in productivity have a substantial effect on acquirers' announcement returns only when the target is relatively large compared with acquirer. Overall, the evidence suggests announcement returns are mainly driven by the target's post-takeover improvements in productivity.

This essay makes several contributions to the literature on corporate takeovers. First, I present some direct empirical results on the channels that affect productivity improvements following takeovers. Existing evidence on channels comes mostly from a few clinical studies which attribute efficiency gains to a broad notion of “synergy" or “better management," I provide substantiating evidence by peering inside the black box of target plants. Second, this study adds to the literature that explains the cross-sectional variation of merging firms' announcement returns. Most existing studies attempt to regress announcement returns on various imperfect proxies for economic gains such as Tobin's Q, insider and analyst forecasts of synergies, operating cash flow, corporate governance measures, and product market differentiation. My findings corroborate the conclusion that wealth gains to share-holders reflect expectations of improved corporate performance. The crucial difference is that I regress announcement returns directly on a measure of plant-level productivity. There are two key advantages in adopting this approach. First, plant productivity is a more fundamental determinant of economic efficiency. Second, using plant level information is less subject to noise in accounting information surrounding the mergers. To the best of my knowledge, this is the first study that explores the relation between stock returns and plant-level productivity in the context of takeovers.

In my second essay, I analyze the role of labor unions in takeovers. Anecdotes suggest that labor unions play an important role in the process of mergers and acquisitions. However, empirical evidence about how labor unions affect merger outcomes is scant. In this study, I investigate the role of labor unions in takeovers by examining their effect on shareholders and workers. I show that target firm's union membership and the difference in membership between targets and acquirers affect changes to shareholders wealth. First, gains to merging firms' shareholders are positively associated with target's union membership, but are negatively associated with the difference in union membership. Second, the target's shareholders capture a larger share of joint gains when the target's union is weaker. To provide insights into why unions might affect shareholder values, I analyze wage and employment outcomes for a large sample of firms that were acquired between 1981 and 2002, using establishment-level data from the U.S. Census Bureau. I find that after a takeover, target establishments exhibit net declines in wages and employment, relative to comparable establishments. Higher union membership for the target firm is associated with greater wages and employment reductions. These results highlight the role of takeovers in unlocking the economic rents previously captured by labor unions.

The last essay is joint work with Angie Low and Anil Makhija. In this esasy, we empirically examine how career concerns affect the investment activities of younger Chief Executive Officers (CEOs) compared to older CEOs. Career concerns matter because managers are expected to adjust their investment behavior to influence the labor market's perception of their abilities, and hence their reputation and future prospects. Indeed, the theoretical literature has long recognized that a firm's investment decisions are contaminated by its managers' career concerns. Yet, the limited available empirical evidence on career concerns is mostly about specialized labor markets, such as mutual fund managers, security analysts, and macroeconomic forecasters. All of these studies find that younger decision-makers avoid bold decisions, preferring to "herd" rather than stand out and risk a negative outcome that could adversely affect their careers. The effect of career concerns on CEOs making corporate real investment decisions has not been examined so far, and there is reason to question if they too will behave conservatively.

As we employ micro-level data from the U.S. Census Bureau to carry out the analysis, we are able to characterize investments very generally to include all firm activities that increase or decrease or alter the composition of a firm's asset base, which comprises of the firm's business segments and establishments within each segment. We begin by using establishment-level information from the Longitudinal Business Database (LBD), which covers every U.S. private non-farm sector establishment, to construct a complete picture of all the plants and industry segments a firm operates in. We then construct real investment variables based on the year-to-year change in the composition of the firm's asset portfolio. This way, we can identify those substantial investment decisions, like entry and exit into new lines of business, in which the CEO is expected to play an important role. We match the LBD with COMPUSTAT to obtain accounting variables for publicly listed firms.

We show that CEO's age has first order effects on a firm's investment decisions. In particular, we find that younger CEOs lead a "busy life". Driven by their desire to establish their reputations, younger CEOs are more likely to alter a firm's existing asset base by both entering new business segments and simultaneously withdrawing entirely from other existing business segments. In contrast, as CEOs get older, they seem to prefer a "quiet life" by refraining from churning their firms' existing business portfolios. Other things equal, firms with CEOs under 50 years of age are 6 percentage points less likely to keep the firm's complete business profile the same as that of the previous year, compared to firms with CEOs aged 60 and above. In contrast, firms with CEOs younger than 50 are 3 percentage points more likely to enter a new business segment and 4 percentage points more likely to exit from an existing business segment, relative to firms with CEOs aged 60 and above. These findings are statistically significant and economically relevant, even against a backdrop of fairly dynamic ongoing restructuring among our firms. In our sample, one quarter of the firms either enter a new segment or exit from an existing segment in any given year. Therefore, relative to the unconditional probability of restructuring, a young CEO increases the probability of restructuring by 10% to 15%.

We perform additional analyses to ensure that the effect of CEO age on firm restructuring activities is not due to other confounding factors. One might argue that such effects are due to the fact that younger CEOs tend to manage different types of firms from older CEOs. We address this concern in several ways. First, younger CEOs tend to be associated with smaller, single-segment firms. If smaller and single-segment firms are more likely to restructure, the relation we find may be spurious. However, our results continue to hold in sub-samples of firms of different sizes and for single- versus multi-segment firms. Second, our results are robust to controlling for firm fixed effects which control for unobservable firm characteristics. Third, the CEO age effect may simply reflect the selection of young CEOs by firms that need more restructuring. But, when we delete observations belonging to newly-hired CEOs, the results continue to hold in the remaining sample of long-tenured CEOs where the matching is less perfect. Finally, we also make use of a propensity score matching approach to ensure that our results are not driven by other considerations.

We examine the impact of CEOs' investment activities on plant-level efficiency using detailed plant-level input and output data from the Annual Survey of Manufactures (ASM) and the Census of Manufactures (CMF).[1] Using total factor productivity (TFP) and value-added per worker as metrics, we show that, on average, younger CEOs are associated with equal efficiency compared with older CEOs. we compare the outcomes of acquisitions made by CEOs of different ages. We do not find any evidence that younger CEOs are associated with a decrease in productivity in the post-acquisition period. Acquisitions made by younger CEOs experience at least as great an improvement as those made by older CEOs.

We further analyze the impact of career concerns on the allocation of capital in plants within a firm. To this end, we distinguish between plants that are "inherited" by the CEO, versus plants that are not. A "not-inherited" plant is either built from scratch or acquired from other firms during the current CEO's tenure. We find that managers tilt incremental capital expenditures towards plants that they themselves initiated. This type of managerial favoritism is,

[1] The plants in the ASM and CMF are a subsample of those in the LBD, The LBD contains all plants from all industries while the ASM and CMF only contains plants manufacturing products in SIC codes 2011-3999. Our result that younger CEOs engage in more restructuring continues to hold in the ASM and CMF subsample.

however, not affected by CEO career concerns as older CEOs and younger CEOs are equally prone to such favoritism.

This paper highlights the important role that a CEO's career concerns plays in shaping corporate investment policies. A younger CEO is more likely to take bolder investment actions altering a firm's existing business portfolio. We compare how career concerns affect the real investment decisions of younger and older CEOs. In contrast to prior research, we find that younger CEOs undertake more active, bolder investment activities, consistent with an attempt on their part to signal confidence and superior abilities. They are more likely to enter new lines of business, as well as exit other lines of business. They prefer growth through acquisitions, while older CEOs prefer to build new plants. This busier investment style of the younger CEOs appears to be relatively successful since younger CEOs are associated with higher plant-level efficiency compared to older CEOs. Taken together, these results suggest that younger CEOs are busy sending active signals to the managerial labor market by taking on bold, speedy, and efficiency-creating investment activities compared to older CEOs.