## Product Market Competition, Real Estate and Stock Returns

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## Executive Summary:

For firms that don't specialize in real estate, what is the optimal real estate strategy? Earlier event studies of market reactions to corporate real estate transactions, such as sale-leasebacks, and more recent empirical asset pricing studies suggest that for these firms real estate ownership negatively affects shareholder value. As a result, it has been advocated that they should minimize real estate ownership. But is this strategy optimally applicable to or implementable by all firms? More fundamentally, do investors treat real estate ownership the same, irrespective of a firm's operating environment or location?

Even though a low real estate strategy appears to make a lot of sense for corporations, it reconciles poorly with the fact that they own and use substantial amounts of real estate and that their real estate largely supports core business activities. Real estate ownership likely reflects firm characteristics and the operating environment (industry and geographical location). This study examines the extent to which product market competition affects the impact of real estate ownership on expected stock returns or firm value for non-real estate firms. Real estate ownership refers to the direct ownership of real estate as well as its indirect ownership through capitalized leases since both provide similar economic benefits. Generally, the acquisition of real estate by most firms, through either leasing or purchase, is tantamount to securing an input resource to meet current and future production objectives, rather than expanding into the real estate business. Therefore, market scope and output decisions, given a firm's product market strategy, often guide these investment decisions.

Borrowing from the IO literature on entry deterrence, I argue therefore that product market competition affects the relation between real estate ownership and expected stock returns. Capacity expansions often require substantial real estate investments. In competitive industries, incumbent firms have no market power and cannot benefit from capacity strategies. As a result, firms operating in competitive industries that own substantial amounts of real estate (whether general purpose or firm specific real estate assets) are perceived as riskier because of the increase in operating leverage and the asymmetric adjustment costs associated with those investments. On the other hand, equity markets are likely to favorably view real estate ownership for firms operating in oligopolistic industries since investments in additional capacity may insulate profit margins by deterring new entries.

Using a large sample of industrial firms from 1973 to 2010, I find the documented positive relation between real estate ownership (proxied by the ratio of real estate assets to properties, plants, and equipment) and stock returns to be specific to competitive industries. This ex-post positive correlation likely reflects the ex-ante higher return requirements. As a result, a long real estate stock portfolio strategy consisting of holding high-real estate stocks and shorting low real estate stocks would result in a significant positive returns, compensating investors for the additional risk associated with real estate ownership in competitive industries. In oligopolistic industries, on the other hand, real estate ownership and stock returns are negatively related, causing the long real estate stock strategy to generate a significant negative average return, which reflects the higher market valuation of real estate ownership in those industries. As further evidence of the importance of industry structure on the relation between real estate ownership and stock returns,

the documented returns on the long real estate stock strategy persist after controlling for leverage and conventional risk factors. These findings also remain robust to alternative measures of real estate ownership and industry concentration.

For industrial firms operating in oligopolistic industries, these findings suggest that pursuing a low real estate ownership strategy, as generally prescribed, is not necessarily in the best interest of shareholders. Obviously, intense industry competition requires operational nimbleness at all levels of the firm. At the extreme, firms facing cutthroat competition might be better off outsourcing production. However, that strategy is unlikely to be successful in all industries since a firm's competitive advantages may be tied to investments in firm-specific assets, including real estate.

As noted in the literature, there potentially exists an endogenous relation between real estate and stock returns since some economic activities are more real estate intensive than others (e.g., car production vs. computer manufacturing). Also, real estate investments often increase financial leverage, leading to higher expected equity returns. Controlling for product market competition allows to partially disentangle the endogenous relationship between real estate ownership and stock returns.