

Research Proposal

”Cross-sectional variance in financial flexibility: Evidence from American REITs and REOCs”

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Abstract

Financial flexibility describes the ability of a firm to access and restructure its financing by avoiding financial distress in the face of negative shocks, and by funding investment when profitable opportunities arise. General finance literature as well as real estate specific studies are not able to produce consistent capital structure results based on classical research. This study empirically examines the US-REIT and US-REOC industry for different cash-flow sensitivities, whereas firms make financing and investment decisions jointly subject to the identity constraint that sources must equal uses of cash. A panel vector autoregressive model is employed to account for the interdependent and intertemporal dynamics of financing, investment and operating decisions. The addition of exogenous variables allows to compare the results to former capital structure theories and provides robustness of the model.

1 Research Objective

Among the widespread research concerning capital structure, one may cautiously claim that a target leverage, as the trade-off theory suggests, can be supported. However, Chen and Zhao (2006) demonstrate that this characteristic can be solely attributed to the mechanics of the ratio's mean reversion. In this light, it is necessary to explicitly address liabilities and shareholders' equity separately in order to explore capital structure dynamics, which is the original motive of capital structure research.

One direction of research in recent general finance literature highlights the importance of cash flow sensitivities, while defining accounting identities, i.e. sources of cash is equal uses of cash. Among others, Gatchev et al. (2010) as well as Long et al. (2010) demonstrate the consistency of empirical results built on these identities. Exemplarily, Gatchev et al. (2010) disprove the typical assumption of cash-flow-investment sensitivities by arguing that shocks to cash-flows are largely mitigated by changes in financing activities. In this light, it may be innovative and powerful to connect this strand of general finance investment research to other research specifically concerned with the capital structure of real estate. Several studies, as the one by Dittmar and Dittmar (2008) that investigate the "waves" of equity issuances and stock repurchases, or the one by Hardin and Hill (2010) and Ertugrul and Giambona (2010) that explore attributes connected with the availability of lines of credit, are examples for either addressing financing, distribution or investment. However, they do not consider that these tools are jointly determined.

This study typically transfers the state-of-the-art literature on capital structure to questions of real estate research. Therefore, it is the first approach with respect to real estate literature to introduce new explanations to capital structure theory. For real estate corporate finance, reasoning different cash-flow sensitivities to aggregates on the balance sheet improves our understanding in management priorities dependent on individual company circumstances. The results also help to understand the concept of financial flexibility as a major driving force of corporate finance decisions as well as a rough estimate for the need of financial flexibility. The US-REIT and US-REOC industry is an excellent empirical environment because endogeneity issues with respect to taxes, leverage, dividends etc. are reduced due to its legal framework and due to the clearly defined property types it is easy to investigate a cross-sectional variance; moreover, lines of credit as a major instrument of financial flexibility can be observed. Finally, an ordinal ranking of the importance of financial,

operating and investment flexibility and their dependencies is provided.

2 Methods

A panel Vector Autoregressive model is employed to account for the interdependent and intertemporal dynamics of financing, investment and operating decisions. Furthermore, this model allows the simulation of shocks by dint of impulse-response techniques. The dynamic multi-equation model of Gatchev et al. (2010) is going to be extended by distinguishing among investment, financing and operating cash-flows and their implications for liabilities and shareholders' equity. Exogenous variables allow comparisons to former capital structure theories and provide the robustness of the model. For example the leverage is considered disaggregated in order to explore the impact of all factors separately. According to Petersen (2009), this research examines different methods to control for heteroscedasticity of residuals across firms or across time. The intent is to provide more robust coefficients for interpreting the estimation.

3 Data

In order to empirically investigate the cross-sectional variance in financial flexibility, we are examining a panel data set. We are collecting the balance sheet composition, cash-flow and market data of individual REITs and REOCs trading on the NASDAQ, New York Stock Exchange and American Stock Exchange from the SNL REITs Datasource over the period from 1990 to 2010. Furthermore, we are adjusting our obtained market data with Thomson Reuters Datastream to identify data inconsistencies and are correcting them. Moreover, we are examining 10-k reports for a more detailed cash-flow perspective and for a cross check. But we are assuming to be bound to the period of 1997 to 2010 due to the data quality and the lag structure of our model.

4 References

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