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The Effect of Free Cash Flows on Company Value: Dynamic Panel Data Analysis on BIST 100 Index in The Context of Free Cash Flow Theory

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Extensive Summary

Introduction

Each passing day more companies go public to reach new financial sources, to increase credibility, to institutionalize, to gain recognition and thus transform into a structure with many shareholders. Along with increasing number of shareholders separation between ownership and management arise, which comes with several problems.

According to Agency Theory which firstly studied this separation in detail, managers don't always act in the best interests of shareholders and therefore companies face with agency costs related to monitoring, bonding and residual loss.

In his 1986 article Jensen contributed to Agency Theory with his own Free Cash Flow Theory as stating that the main source of agency costs is free cash flow and free cash flows will decrease the value of companies having low growth opportunities. This article aims to investigate the effect of free cash flows on value of companies in Turkey in the context of Jensen's Free Cash Flow Theory.

Methodology

In econometric analysis part of the article 2002-2016 data of 49 companies in BIST 100 Index has been used. Financial companies have been excluded from dataset due to strict regulations in this sector. BIST 100 Index has been selected as main dataset because costs associated with ownership and management separation arises especially in large companies. Tobin's q ratio has been chosen as dependent variable and proxy for company value.

Leverage ratio, size of company and real GDP growth rate have been used as control variables in addition to the main independent variable: free cash flows.

Dynamic panel data analysis has been carried out to examine the effect of free cash flows on value of companies. Two-step Arellano-Bond difference and Arellano-Bover system estimators have been preferred to estimate dynamic panel data model. Lagged levels and lagged differences values of variables have been used as instrumental variables in the analysis.

Dummy variable which takes value '1' if company has low growth opportunities or in other words if company has a Tobin's q ratio less than 1 and interaction variable (free cash flows*dummy variable) have been added dynamic panel data model to study the effect of free cash flows on value of company with low growth opportunities suitably with Jensen's Free Cash Flow Theory.

Findings

Main findings of the dynamic panel data model estimations are stated below:

- All variables significantly affect company value proxied by Tobin's q according to both Arellano-Bond difference and Arellano-Bover system generalized method of moments (GMM) frameworks.
- Free cash flows negatively affect the value of companies having low growth opportunities indicated by lower q ratios. This result supports Free Cash Flow Theory in BIST 100 Index.
- It can be said that with increasing free cash flows managers invest sources in low/negative return projects or waste sources in other activities to increase the resources under their control in companies where there are not enough project alternatives with positive net present value. And this leads to a destruction in company value.
- Leverage ratio negatively affects the company value. It is in line with Pecking Order Theory.
- Size proxied by total assets positively affects the company value.
- GDP growth rate positively affects the Tobin's q ratios of companies in BIST 100 Index.

Conclusion

Starting from this point of view that free cash flows decreases the value especially in companies which don't have high growth opportunities, some suggestions can be made to reduce negative effects of free cash flow in the context of Free Cash Flow Theory.

- In addition to enhancing monitoring activities, forming more efficient board of directors, incentives like giving stock options to managers can increase motivations of managers to find profitable investment areas that may decrease agency costs and increase company value.

- Market regulations and reforms directed to minimize information asymmetry between managers and shareholders can decrease the level of negative effects linked to free cash flows. At this point even if agency costs originating from free cash flows can not be removed, several steps may decrease the level of these costs.

- Reducing these kinds of costs in financial markets and financial transactions can make markets more efficient and contribute to national economy with increasing productivity.