Report Type
>
Mid Term Award Report

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Project Title
>
Book-to-Market Ratio and Inflexibility: The Effect of Unrecorded R&D Capital

Project Start Date
>
Mar 01, 2017

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>
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Amount Awarded
>
N/A

Project Abstract

Investment-based asset pricing models predict that a firm's risk is determined by its inflexibility in adjusting capital, which is manifested through book-to-market ratio (B/M). However, inconsistent with this prediction, empirical results in the past 50 years suggest that high-B/M firms are not riskier. I find this is because B/M in the data has deteriorated as an indicator of inflexibility, which is caused by growing R&D investment and the accounting practice of expensing R&D expenditures. Using both B/M and R&D capital to identify inflexibility, I find that inflexibility is an important determinant of risk and expected returns in the cross-section.

Activities and Achievement

R&D investment has been playing an increasingly important role in the economy. However, accounting standard requires firms to immediately expense R&D as incurred. Therefore, R&D investment is not capitalized on the balance sheet. Could the unrecorded R&D capital affect our assessment of a firm's risk? The answer is affirmative, according to the findings from this project. The results from this project suggest that due to unrecorded R&D capital, book-to-market ratio calculated from the balance sheet data increasingly misrepresents a firm's inflexibility to make capital adjustment and hence misrepresent its risk. A better way to evaluate a firm's inflexibility and risk is to consider book-to-market ratio and R&D capital together.

Dissemination

I have presented this paper at several European universities and received very useful feedbacks. I plan to submit this paper to major finance conferences in the next few months in order to obtain more feedbacks, and in the meanwhile revise the draft.

Outputs

Major Difficulties and Any Other Issues
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None

Web Links
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https://sites.google.com/site/ylemcam/