Referee Report for "On Internal Capital Markets Inefficiency"

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Junhao Li

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Summary

This paper documents the relationship between the Q-sensitivity of investment and organizational structure.

The main result is that the investment of stand-alone firms are more sensitive to industry Q than unrelated segments of conglomerate firms. In addition, unrelated segments of conglomerate firms tend to invest less in high-Q industries, while more in low-Q industries than stand-alone firms. And these findings are more pronounced in conglomerate firms when top managers have small ownership stakes.

One thing in this paper is particularly valuable to the literature. It determines relatedness between different segments of conglomerate firms by whether there is significant flow of goods and services according to the Input-Output Benchmark Surveys of the Bureau of Economic Analysis (hereinafter referred to as "Survey"). It solves the problem of identifying vertically related business lines, which would be treated as unrelated by the usual SIC code approach.

Comments

1. State the key contribution more clearly

   I believe the key contribution of this paper is that it uses a new measure of relatedness based on input and output of two industries. This measure has not been used in exploring the relationship between investment efficiency and corporate structure before. This paper uses this measure and a bigger data set and obtained results that are consistent with previous studies, thus it provides more evidence to support the existing theories about investment behavior of conglomerate firms. That is the key of this paper and should be stated more explicitly, while the findings that unrelated segments of conglomerate firms tend to invest less in high-Q industries and more in low-Q industries than their stand-alone peers are secondary, because previous literatures have already documented similar findings.

2. Provide more details about closely related previous literature

   Two previous studies should be presented more clearly and detailedly in the introduction section.

   One is Scharfstein (1998). Besides his method of identifying unrelated lines of business through subjective judgement, he also documented that divisions of conglomerate firms in low-Q induestries tend to invest more than their stand-alone industry peers, while divisions in high-Q industries tend to invest less than their stand-alone industry peers, and that the finding is more pronounced in firms in which top management has small equity stakes. These findings are all closely related to the findings of this paper.

The other one is Fan and Lang (2000), which not only uses the same method and data source as this paper, but also demonstrates that they outperforms traditional method based on SIC codes, thus could make the results in this paper more convincing.

3. Conduct more robustness and validation tests

   As an innovation in the field of internal capital efficiency, this paper uses input-output based relatedness measure developed by Matsusaka (1993) and Fan and Lang (2000). However, I think the author need to conduct additional robustness test with different cut-offs when determining whether two segments are related or not. Because there is no clear boundary between related and unrelated segments, to see if the result about unrelated segments is robust, it would be important to investigate whether the result would change if slightly different cut-offs are chosen.

   In addition, prior studies that domonstrate the agency problem in conglomerate firms and the relationship between investment efficiency and organizational structure use different relatedness measure and different data, for instance, Scharfstein (1998) uses qualitative assessment of business description in Moody's Industrial Manual. To support the validity of the new relatedness measure, validation tests using the same sample firms and years should also be conducted.

   Finally, besides the matching on industry, size, and age, I believe year plays an important role in Q-sensitivity as well. The theory of investment decision and policies regarding corporate finance keep moving forward, and management teams' behavior is also changing everyyear, thus we cannot neglect this hidden variable.

4. Identify the horizontal relationship

   It is stated in page 3 that "we use ... to identify significant vertical and horizontal industry relationships". But it is not clear to me how the horizontal relationship is identified. Seems that the author, besides his great job in identifying vertical relationship, just use whether two segments operate in the same industry to identify their horizontal relationship, or in other words, for each industry the only horizontally related industry is itself, which is not a satisfactory way for determining horizontal relatedness. A better way could be using how much common inputs and outputs two industries have, as is proposed by Fan and Lang (2000).

5. Lower Q-sensitivity does not necessarilly imply inefficiency

   One hidden assumption in this paper is that the more (less) investment in high (low) Q induestries, the higher the efficiency. However, this may not be true.

   On one hand, Q is not an accurate measure of investment opportunity. There are several other factors that could affect Q of whole industry as well. For example, social media usually focuses more on consumer products, thus decreases information asymmetry, causing the whole consumer products industry having higher Q than other industries with similar investment opportunity.

On the other hand, it is also possible that the stand-alone firms themselves make the wrong investment decision, overinvesting in high-Q industries, while underinvesting in low-Q industries. If that is the case, stand-alone firms would be actually less efficient than conglomerate firms.

I think it is important to point this caveat out in the paper, so that whoever reads this can have this in mind and view the results more critically.

6. Use more specific title

   I think the title of this paper is too broad and vague. By looking at the title, it is completely unclear to me what is the attitude of the author, whether he or she want to protest the efficiency internal capital markets or argue that it is really inefficient, and whether it is a theoretical argument or empirical evidence.