

RGC Ref. No.: <u>UGC/FDS11/B03/18</u> (please insert ref. above)
--

**RESEARCH GRANTS COUNCIL
COMPETITIVE RESEARCH FUNDING SCHEMES FOR
THE LOCAL SELF-FINANCING DEGREE SECTOR**

FACULTY DEVELOPMENT SCHEME (FDS)

Completion Report

(for completed projects only)

<p><u>Submission Deadlines:</u></p> <ol style="list-style-type: none"> 1. Auditor's report with unspent balance, if any: within six months of the approved project completion date. 2. Completion report: within 12 months of the approved project completion date.
--

Part A: The Project and Investigator(s)

1. Project Title

Book-Tax Tradeoff Theory and Corporate Acquisition Payment Methods: Evidence from China

2. Investigator(s) and Academic Department(s) / Unit(s) Involved

Research Team	Name / Post	Unit / Department / Institution
Principal Investigator	Professor CHAN Koon Hung Professor	Rita Tong Liu School of Business and Hospitality Management / Caritas Institute of Higher Education
Co-Investigator(s)	Professor Mo Lai-lan, Phyllis Professor Dr. HE Miao Lecturer	Department of Accountancy / City University of Hong Kong Division of Business and Management / Beijing Normal University-Hong Kong Baptist University United International College
Others (collaborator)	Dr. ZHANG Weiyin Assistant Professor	Department of Accountancy / The Hang Seng University of Hong Kong

3. Project Duration

	Original	Revised	Date of RGC / Institution Approval (must be quoted)
Project Start Date	01/01/2019	No revision	N/A
Project Completion Date	31/12/2021	No revision	N/A
Duration (<i>in month</i>)	36	No revision	N/A
Deadline for Submission of Completion Report	31/12/2022	No revision	N/A

Part B: The Final Report

5. Project Objectives

5.1 Objectives as per original application

1. Collect relevant data on acquisitions by Chinese companies. Ascertain the acquisition payment methods used and motivation for the choice of a method.
2. Conduct statistical analyses on the relationship between the level of tax avoidance and the likelihood of choosing a particular acquisition payment method based on the book-tax tradeoff theory.
3. Conduct statistical analyses on how the relationship identified in (2) may be moderated by information asymmetry (the information environment) and the corporate governance characteristics of the acquirer, as these characteristics are likely to affect a firm's tax avoidance and acquisition payment methods.
4. Conduct further analyses to enhance causal inferences and assess market reactions.

5.2 Revised objectives

Date of approval from the RGC: N/A, No revision

Reasons for the change:

- 1.
- 2.
3. ..

5.3 Realisation of the objectives

(Maximum 1 page; please state how and to what extent the project objectives have been achieved; give reasons for under-achievements and outline attempts to overcome problems, if any)

Objective #1. Collect Relevant Data

Before collecting relevant research data, we conducted an in-depth review of the Institutional Background related to M&A in China. We also performed a comprehensive literature review confirming the potential contributions of our research. For actual data collection, we focus on a sample of M&A transactions in China from 2008 to 2019. We started from 2008 as that was when the new Enterprise Restructuring Law took effect in China. The sample of transactions was chosen following these criteria: (i) the acquiring firms must be listed in the A-share market in China; (ii) the payment method must consist of cash (including the use of debt to generate cash), stock or a combination of both; (iii) the transaction must be successful (completed); (iv) the transaction must be an acquisition of a target's stock. We exclude observations with missing deal values. However, we do not impose any restriction on the listing status of the target firm.

We began our sample creation process by obtaining M&A data from the China Listed Firms' M&A and Restructuring Research Database, a module of China Stock Market & Accounting Research (CSMAR) database. We collected data on deal value, announcement date, payment method used, whether the deal is an asset or stock transaction and the success of the transaction. We examined and cross-checked the data against data from company websites and other data sources.

We then collected data on tax avoidance measures and other control variables from various sets of data. Following prior literature, when an acquirer achieves multiple successful acquisitions in a given year, we only consider the one with the largest deal value. We also exclude observations for financial companies and those with missing variables. Again, we cross-checked the data against other sources. Applicable tax rate (ATR) data are from the WIND database. We then merged our M&A dataset with the dataset for other regression variables. We also collected additional data (related to Objective #3) such as analyst following and state ownership.

Objective #2. Conduct Statistical Analysis on the Relationship between Tax Avoidance and the Choice of a M&A Acquisition Payment Method

We have successfully conducted such statistical analysis to test our hypothesis. We use three different measures of tax avoidance, three different representations of acquisition payment methods and various control variables in our regression model. The results confirm our main hypothesis. For more details, please refer to Section 6.1.

Objective #3. Conduct Statistical Analysis on How the Relationship Identified in Objective #2 may be Moderated by Relevant Variables.

For this objective, we have done more than we proposed. We test the moderating effect of analyst coverage (proxy for information environment) and institutional ownership (proxy for corporate governance). These two moderating variables combined can also be considered as representing investor monitoring of the firm. In addition, we also test the moderating effect of state-ownership and political connections (i.e., political influence) on the relationship between tax avoidance and payment methods.

Objective #4. Conduct Further Analysis

We have conducted a host of supplemental analyses including Debt Financing Analysis, Propensity Scores Matched Analysis, Further Check on Reverse Causality, Additional Measures of Tax Aggressiveness and Aggregations of Payment Measures. We did not do a capital market analysis on tax avoidance because, after reviewing relevant literature and consultations with colleagues and conference participants, we do not see such an analysis being germane to the theme of this research which is to investigate the relationship between tax avoidance and acquisition payment methods.

5.4 Summary of objectives addressed to date

Objectives <i>(as per 5.1/5.2 above)</i>	Addressed <i>(please tick)</i>	Percentage Achieved <i>(please estimate)</i>
1. Collect relevant data	✓	100%
2. Conduct Statistical Analysis to test the main hypothesis	✓	100%
3. Conduct analysis on moderation variables	✓	100%
4. Conduct further analyses	✓	100%

6. Research Outcome

6.1 Major findings and research outcome

(Maximum 1 page; please make reference to Part C where necessary)

Refer to Objective #1: Collect relevant data.

We have successfully collected data of over 8,000 deals on corporate acquisitions that satisfy our data requirements (as detailed in Section 5.3) with no missing variables for our main regression analysis. The data are from CSMAR and other databases. We have cross checked the data for consistency with data from company websites and other sources as well as being compatible with relevant prior literature. That was a time consuming process.

Refer to Objective #2: Conduct statistical analysis to test the main hypothesis.

We conducted both univariate and multi-variate statistical analyses to test the hypothesis with numerous control variables and multiple measures or representations of tax avoidance and acquisition payment methods. The results clearly confirm our main hypothesis that acquirers with a low (high) long-term tax avoidance before acquisition are more likely to have stock- (cash-) financed acquisitions. Significantly, the results support the book-tax tradeoff theory in explaining tax avoidance behaviors in an M&A context.

Refer to Objective #3: Conduct statistical analysis on relevant moderating variables.

We test the moderating effect of the level of analyst coverage and institutional ownership. We find that these “investor monitorings” weaken the significance of the relationship between tax avoidance and the choice of an acquisition payment method. We also test the moderating effect of state ownership and political connections and find that such political influence renders the relationship insignificant. Thus, political influence has a stronger moderating effect than investor monitoring.

Refer to Objective #4: Conduct further analyses

We conducted a host of supplemental analyses as elaborated in Section 5.3. The results support the robustness of our main findings.

The overall finding of this research is that the book-tax tradeoff theory is applicable to explain the relationship between acquirers’ long-term tax avoidance and their subsequent choice of an acquisition payment method. By having an established theory to help explain the relationship and the patterns of tax avoidance behaviors, we provide an important framework for relevant decision-makers including tax authorities, corporate managers, investors and auditors to make their decisions. Thus, the findings of this research have both theoretical and practical significance.

6.2 Potential for further development of the research and the proposed course of action

(Maximum half a page)

The current research tests the applicability of the book-tax tradeoff theory in an M&A decision-making context. Further research can explore other settings or events that trigger a change in the incentives for book and tax reportings and assess the applicability of the book-tax tradeoff theory in those contexts. An example is the IPO setting where a firm changes from a private to a public firm.

7. Layman's Summary

(Describe in layman's language the nature, significance and value of the research project, in no more than 200 words)

The role of taxes has a long history in financial decision making. The overall objective of this research is to test the applicability of the book-tax tradeoff theory in explaining how the acquirers' tax reporting behaviors may affect their merger and acquisition (M&A) payment structure decision. Specifically, we investigate whether acquirers' long-term tax avoidance is related to their subsequent choice of a payment method in corporate acquisitions according to the book-tax tradeoff theory.

Our research contributes to the literature on book-tax tradeoff theory. Specifically, we validate the theory by providing evidence of a tradeoff between book and tax incentives in an M&A context, suggesting that firms that have been paying more taxes more likely use stock or debt to finance acquisitions. This study also contributes to the literature on tax and acquisition payment methods. Our evidence suggests that the acquirer's own tax avoidance prior to the acquisition significantly affects the chosen payment method. By using an established theory to explain the relationship between tax avoidance and the choice of an acquisition payment method, we provide an important framework for relevant decision-makers including investors, auditors, tax authorities, and regulators of corporate affairs to make their M&A related decisions.

Part C: Research Output**8. Peer-Reviewed Journal Publication(s) Arising Directly From This Research Project**

(Please attach a copy of the publication and/or the letter of acceptance if not yet submitted in the previous progress report(s). All listed publications must acknowledge RGC's funding support by quoting the specific grant reference.)

The Latest Status of Publications				Author(s) (denote the corresponding author with an asterisk*)	Title and Journal / Book (with the volume, pages and other necessary publishing details specified)	Submitted to RGC (indicate the year ending of the relevant progress report)	Attached to this Report (Yes or No)	Acknowledged the Support of RGC (Yes or No)	Accessible from the Institutional Repository (Yes or No)
Year of Publication	Year of Acceptance (For paper accepted but not yet published)	Under Review	Under Preparation (optional)						

9. Recognized International Conference(s) In Which Paper(s) Related To This Research Project Was / Were Delivered

(Please attach a copy of each conference abstract)

Month / Year / Place	Title	Conference Name	Submitted to RGC (indicate the year ending of the relevant progress report)	Attached to this Report (Yes or No)	Acknowledged the Support of RGC (Yes or No)	Accessible from the Institutional Repository (Yes or No)
12/ 2021/ Hong Kong	Book-Tax Tradeoff Theory and Corporate Acquisitions: Evidence from China	2021 Academy of International Business Conference (Asia-Pacific Region)	No	Yes (Abstract)	Yes	Yes (from conference organizer)

10. Whether Research Experience And New Knowledge Has Been Transferred / Has Contributed To Teaching And Learning

(Please elaborate)

The PI is the Coordinator of a two-semester BBA course “Business Research Project” which is a graduation requirement for ALL business students at Caritas. This research helps inspire students on research in taxation and corporate governance. In addition, this research was presented in a Caritas Research Seminar in December 2021 for Caritas faculty and students. From 2022, the PI will also be the Coordinator of a graduate course “Research Project in Corporate Governance” in Caritas’ Master of Corporate Governance Program which will be benefited by this research. Similarly, for the Co-Is, the research experience from this project enhances students’ interest in taxation and corporate governance research in their respective institutions.

11. Student(s) Trained

(Please attach a copy of the title page of the thesis)

Name	Degree Registered for	Date of Registration	Date of Thesis Submission / Graduation
	Please see explanation above.		

12. Other Impact

(e.g. award of patents or prizes, collaboration with other research institutions, technology transfer, teaching enhancement, etc.)

This research project involves and enhances collaborations among self-financed and UGC funded institutions in Hong Kong as well as an institution in Mainland China. It deepens our knowledge on taxation and corporate governance issues which will enhance the quality of our teaching in the relevant areas.

13. Statistics on Research Outputs

No. of outputs arising directly from this research project	Peer-reviewed Journal Publications	Conference Papers	Scholarly Books, Monographs and Chapters	Patents Awarded	Other Research Outputs (please specify)	
					Type	No.
	1 (under review)	1				

14. Public Access Of Completion Report

(Please specify the information, if any, that cannot be provided for public access and give the reasons.)

Information that Cannot Be Provided for Public Access	Reasons
	N/A