

Report on Ph.D. Thesis Defense

Ph.D. Candidate	Kariastanto Bayu Dwi
Main referee	Wade D. Pfau
Referees	大山 達雄 James Rhodes Julen Esteban Pretel 渡辺 和孝 (慶應義塾大学)
Dissertation Title	Five Essays on Banking and Retirement Savings in Indonesia, Asia, and Developed Countries

Result: Pass (subject to minor changes)

1. Abstract

Bayu presented his dissertation on July 23, 2012, and the presentation was followed by comments and questions from the members of the examination committee and other participants. The thesis was written under the direct supervision of Associate Prof. Wade D. Pfau. Bayu's dissertation consists of 5 research papers (after the Chapter 1 introduction, Chapters 2 through 6 represent independent research papers) on the subjects of banking and personal savings. Three of the studies are specifically about Indonesia, and the other two have a broader international scope.

The first essay investigates the role of banking deposit protection and moral hazard in Indonesia. He uses Indonesian data, as the Indonesian historical record provides a variety of deposit protection regimes which allow for a broader analysis. Greater deposit protection provides stability, but it also leads to moral hazard and contingent liabilities for the government. He estimates the size of these liabilities using the Black-Scholes-Merton options pricing formula, and also estimates the degree of moral hazard using regression analysis. This article currently has "revise and resubmit" status at the *Bulletin of Indonesian Studies*, which is a Social Science Citation Index member journal published through Australian National University. Bayu also presented this paper at an academic conference in China.

The second essay investigates the issue of bank efficiency in Asia from the perspective of foreign bank entrants. He investigates bank efficiency from the perspective of foreign vs. domestic banks, state vs. private banks, minority ownership interests, and mode of entry by foreign banks (Greenfield, acquisition, or joint venture).

The findings include that foreign banks are more cost efficient, but not more profit efficient, than domestic banks. State-owned banks are least efficient. Minority ownership does not have an impact, and greenfield banks experience the least cost efficient mode of entry. Foreign bank branches are more cost efficient than subsidiaries. This article was written jointly with Wako Watanabe of Keio University, who presented their findings at an Academic Conference in the Ukraine.

The third essay is about the issue of whether regulations should be relaxed to allow Indonesian pension funds to invest abroad. Currently, this is prohibited. He finds evidence that the diversification benefits of foreign investment justify investment abroad. Perhaps a ceiling of 20% for international investment could provide a reasonable compromise. This article is currently under review at *Journal of Emerging Market Finance and Trade*.

The fourth essay covers the subject of the “safe” savings rate for household financial planning in 19 developed market countries. Most research about retirement planning is done for the U.S. case, and this article shows that the U.S. has enjoyed a rather relaxed experience for retirement savings compared to what would have been required in most other countries. This article has been accepted for publication in the September 2012 issue of the peer-reviewed *Journal of Financial Service Professionals*.

The fifth essay is about the determinants of returns for mutual funds in Indonesia. Fund returns are decomposed between asset allocation strategy, asset selection, and timing decisions. This research has been done for the U.S. case, but it is important and interesting to repeat the analysis for countries with different experiences, such as the U.S.

Bayu has also been active in writing additional research articles during his time as a Ph.D. student at GRIPS, which are not incorporated as part of this dissertation

2. Result /Notes from the Examining meeting / Final Evaluation

Professor Rhodes:

Overall, he impressed by the studies and their organization. For the presentation, so much was covered that it may have been hard for non-specialists to follow, though the chapters do cover these materials. The slides were missing some important details like the data period covered and the definitions of certain terms. Articles were competently written. The research applies common techniques and answers standard questions, which is okay because this is being done for Indonesia to show the experience of other countries and to see how they confirm or depart with what has been done for countries

like the US.

A common problem across the research may be that it does not distinguish between uncertainty and risk. Risk can be assigned probabilities, and these studies do that based on what has been observed in the past. However, uncertainty is another matter and is harder to assign a probability. The uncertainty may be bigger for developing countries. Prof. Rhodes asks, for each chapter, looking at how limited the data is, how would the results change if you have more data? How relevant is the past experience for the future given the limited data? How do you decide what is risky? What is a risky investment? How has that changed since the financial crisis? How has relative risk changed, such as the risk between US bonds and Indonesian bonds? Would the results have changed, even, with an update in data from 2009 to 2012?

In Asia, banking is the most important part of the financial sector. What do you think about this? Should Asian governments move to develop deeper capital markets or should they stick to the traditional bank model? With banks, could they get better results by investing abroad in other capital markets?

Prof. Rhodes also questions about the explanations for certain results? For instance, why are foreign banks more cost efficient but not more profit efficient than domestic banks? It would be nice to have more explanations for why the results came out as they did.

1 Revisions made by Bayu in response to Professor Rhodes Comments:

The result may change if we change the data. However, I expect little change if we include current data (2009 to 2011, only 3 years) since our data set is relatively long (23 years) and already covers the worst period of the US financial crisis which was in 2008 (stocks drop by 46% in the U.S.). In the following years, global financial markets have rebounded (stock price increases by 23% in 2009 and 17% in 2010 in the U.S. Similar patterns could also be observed in Indonesian financial markets).

About bank vs. capital market development, the key point is to create the same field of play for banking and capital markets, and then let people choose the best sector for their needs. The main problem of capital market development in Asia is low public understanding about capital markets. Government should take a role in educating people about capital markets to level the playing field.

About the explanation for results regarding cost and profit efficiency, it is relatively easy for technologically advanced foreign banks to manage costs under their control and to insulate the costs from influences of external environments. On the other hand, profits are revenues less costs so that domestic private banks with richer local

information have more advantage in earning profits. Domestic banks could rely on soft information to make credits; hence they have greater market than foreign banks. These details are included in the dissertation.

Professor Watanabe:

In Essay 1, the puzzling result is that banks under guarantee engage in more risk shifting than banks under a system with a blanket insurance cap. Explanations seem inadequate for why this might be the case. Argue that treasury has less motivation to monitor banks because the deposit insurance corporation comes in between, but the treasury would still have to step in and bail out if the deposit insurance system fails. So treasury must have more incentive to monitor banks. Should mention more about some institutional differences between the two regimes. Are there legal or institutional obstacles or challenges that prevent the treasury from intervening in banks under the insurance regime? Specify that independent of the regime change, there was a reorganization of the government sector.

About essay 3, are you maximizing utility? There are two utility functions. Can this be clarified? If we look at the tables, you do not show the values for the utility functions. Is that intentional? It may help to see utility values.

1 Revisions made by Bayu in response to Professor Watanabe's Comments:

Establishment of IDIC also coincided with institutional reform in Indonesia. The first reform is the liquidation of the Agency for Banking Restructuring (BPPN). BPPN is a government agency to take toxic assets from the banking sector after the 1997 Asian financial market crisis and to recover those toxic assets. The second institutional reform is the banking supervision reform (Stipulated by Law Number 3/2004 regarding Bank Indonesia) which fully transferred banking supervision authority to Bank Indonesia. Previously, the Ministry of Finance still had supervision authority through its Directorate of Banking (this directorate lost its function in 2005 and then it was liquidated in 2006). These explanations have been added as a footnote in the dissertation.

Regarding essay 3, there are utility functions for single-period and for lifetime outcomes. Showing the numerical values of the utility functions is not helpful, as it is only the relative relationships which matter, and we show the outcomes which maximize utility.

Professor Oyama:

Title: Too general. Include more key words: model analysis, Indonesia, fund allocation, etc. Title needs to be more detailed to be recognized by readers as a Ph.D. dissertation.

Research framework (first slide): Financial market part should be at top, and demographic part should be at bottom. Just switch the top and bottom parts. That also matches the essay order

Essay 1: Maximization criteria are understandable, but they are from the bank side. Can you incorporate the depositors considerations? Mention something about the depositors side. Stability, protection, etc.

Essay 2: Interested in justification or reliability of the model. Cost efficiency results may not be so reliable. Fit may be lower. Is cost data less accurate? Is there a problem with data availability or variable selection?

Essay 3: more comparison between the two utility maximization approaches: monte carlo or mean-variance model. How to select among them? Give more evaluation and comparative study for each of these parts.

Essay 4: Could be combined together with Essay 3. Combine asset allocation strategies with savings strategies.

Essay 5: Didn't like Essay 5 so much. This issue could be incorporated into another essay.

Emphasize more on your originality and contribution. What is different about your approach?

Essay 1 and Essay 3 are the strongest.

1 Revisions made by Bayu in response to Professor Oyama's Comments:

He changed the title to make it more specific.

He added explanations of the benefits of deposits protection program (blanket guarantee/deposit insurance) for depositors, such as: depositors will get full payment regardless condition of banks or governments, depositors confidence in the banking system will not be deteriorated during financial turmoil, etc.

The cost efficiency model is not less reliable than the profit efficiency model. He and Watanabe sensei obtain profit and cost data from the same financial reports commercially provided by Bank Scope, so the cost and profit data have no difference in accuracy. However, some researchers suggest that profit efficiency is a stronger concept compared to cost efficiency, as people care more about profits than costs.

The mean-variance model is widely used in modern finance, and the Monte Carlo

simulation model is used as a robustness check. Fortunately, Mean-variance analysis and Monte Carlo simulation provide the same recommended asset allocation strategies. They support one another.

Essays cannot easily be combined as each essay has different topic, different methodology, and different data set. Essay 4 is already forthcoming in a peer-reviewed journal in September 2012.

Further emphasis on the contribution and originality have been provided in the introduction part in each essay.

Professor Esteban-Pretel:

Professor Esteban-Pretel met separately with Bayu on July 24 to hear the defense. No specific revisions were requested.

Examination Committee Meeting

The meeting of the Examination Committee was held immediately after the presentation. The Committee was chaired by Professor Tatsuo Oyama and included Assoc. Prof. Pfau, Professor Rhodes, and Assoc. Prof. Wako Watanabe, who served as the external examiner. Prof. Esteban Pretel heard the presentations separately. The Committee decided that both the contents of the dissertation and the public defense were satisfactory for conferring the doctoral degree. However, it was agreed in the meeting that some minor changes in the format and presentation would improve the clarity of the dissertation. It was, therefore decided that the required changes and revisions be made in the dissertation before the final submission. It was further decided that Associate Prof. Wade Pfau will be responsible to check and validate the revisions.

Final Evaluation

Bayu has made the changes recommended by the examination committee members and has given a detailed report of the changes to me. I have examined those changes and explained them in this report, and I am satisfied that he has fully followed the recommendations of the examination committee.