提出日 Submission Date: <u>2014 / 5/ 21</u>

博士学位論文案杏報生書

	oral Thesis and Report of Examination	
研究科長 殿	oral Thesis and Report of Examination	
下記のとおり、審査結果を報告します。 To the Dean:		
We report the result of Examination for the	he Doctoral Thesis below.	
学籍番号 Student I.D. No.:	4010 S 306 -	
学生氏名 Name:	崔玉明 (Cui Yuming)	ı
和文題名 Title in Japanese:	中国の為替制度と人民元の国際化に関する研究	
英文題名 Title in English: <u>Essa</u>	ays on China's Exchange Rate Regime and RMB Internationalizat	<u>ion</u>
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3. 会場 Venue:		

4. 合否判定 Result: 5. 添付 料 Attached document(s)

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5 枚 pages (和文4,000字程度、もしくは英文1,500語程度。ただし、論文題目のみは、和文・英文を併記すること) (Approximately 4,000 characters in Japanese, or 1,500 words in English. The Doctoral Thesis title, however, must be written in both Japanese and English.)

Report of Submitted Ph.D. Dissertation

Name: Yuming CUI

Title: Essays on China's Exchange Rate Regime and RMB Internationalization

邦語タイトル:中国の為替制度と人民元の国際化に関する研究

I. Overview of the Dissertation

Exchange rate policy has played an important role in the process of China's rapid economic development over the past several decades. The Chinese authority launched the reform of RMB exchange rate regime in July 2005 when the new exchange rate policy was announced. More recently, after the Global Financial Crisis 2007-2008, the Chinese authority accelerated the exchange rate regime reform and the process of the renminbi (RMB) internationalization. Considering China's rapid economic growth and increasing weight in the world trading system as well as the ongoing global financial system reform triggered by the financial crisis, understanding of China's exchange rate regime and RMB internationalization is increasingly important not only for China, but also for the rest of the world.

The major issues that are addressed in the dissertation are the followings, China's exchange rate regime, the valuation of RMB, the impacts of RMB fluctuation on international competitiveness of China vis-à-vis ASEAN countries, lessons of exchange rate regime reforms in other East Asian countries, Chinese authorities commitment to RMB internationalization, and forecasting the importance of RMB as a reserve currency in the global monetary system in the future.

The main findings can be summarized as follows: First, the RMB is in a transitional process shifting from a single currency (US dollar) peg to a currency basket peg. Second, the RMB is still undervalued. But it is approaching to its equilibrium level. Third, China lost international competitiveness vis-à-vis ASEAN countries because of RMB appreciation and wage increase. However, some regions of China are more competitive than ASEAN countries. Fourth, judging from the experiences of Japan, Korea and Taiwan on exchange rate regime reform, gradual approach seems better than one-off approach. Finally, China is argued to have achieved significant progress in promoting RMB internationalization since 2009, although China faces numerous challenges. The author argues that the RMB could become an international currency comparable to the US dollar and the euro by 2025, if China removes controls on its capital account and the RMB becomes a fully convertible currency.

II. Chapter Outline and Contents of Dissertation

Chapter 1 Introduction

Chapter 2 RMB Exchange Rate Regime: US Dollar Peg vs Basket of Currencies Peg

Chapter 3 RMB "Equilibrium" Real Exchange Rate

Chapter 4 RMB Revaluation and China's International Competitiveness

Chapter 5 Lessons Learnt from Japan, Korea and Taiwan's Exchange Rate Regime Reform

Chapter 6 RMB Internationalization

Chapter 7 Concluding Remarks

Chapter 1 presents the discussions on the study's background, research objectives, research questions and expected output, theoretical frameworks, and possible contributions.

Chapter 2 examines China's exchange rate regime from 1949 to 2013 with a focus on the 2007-2013 period, when China moved from the US dollar peg exchange rate regime to a managed floating exchange rate regime with reference to a basket of currencies. Applying the currency basket inference model developed by Frankel and Wei, the author examined the contents of the RMB's currency basket for the period of 2007-2013. The author found that China's exchange rate regime shifted from the US dollar peg to a currency basket peg regime except for the period of financial crisis. The author also revealed that the weight of the US dollar was still the largest in the RMB's currency basket, but its importance decreased steadily. The weights of some currencies in RMB basket increased gradually, but not very significantly. Surprisingly, two major currencies: the euro and Japanese yen were not allocated large weights in RMB basket. In contrast, Singaporean dollar received increasing weight in some periods. It is observed that China's RMB exchange rate regime is in transitional period from single currency pegging to currency basket pegging. The author argues that in the long run China should adopt a more flexible exchange rate regime in order to establish a stable and resilient financial system.

Chapter 3 assesses RMB's equilibrium exchange rate and the degree of RMB misalignment. It is widely believed that the RMB was undervalued over the last decade. Recently, the RMB appreciated significantly in nominal and real terms. Debate on RMB misalignment remained unclear, although the Chinese authority argued that the RMB is approaching to its equilibrium level. Applying the behavioural equilibrium exchange rate (BEER) approach, the author investigated how the RMB was misaligned from its equilibrium exchange rate during the period of January 1997 to December 2012. The author found that the RMB was undervalued during the period, but it is approaching to its equilibrium level. The author argues that the reform of the exchange rate system in July 2005 contributed to the trend of RMB approaching to its equilibrium exchange rate.

Chapter 4 examines China's international competitiveness vis-à-vis ASEAN countries in light of RMB appreciation and wage increase. The analysis found that

China lost international competitiveness relative to ASEAN countries by examining the patterns of BEER, GDP deflators, and unit labor cost of China and ASEAN countries. Furthermore, the author found a substantial diversity in the level of competitiveness among different provinces in China. The provinces in coastal, inland and southwest of China lost competitiveness, while the provinces in northwest of China gained competitiveness. The author argues that China could absorb the likely adverse impacts of RMB revaluation and wage increase by shifting manufacturing industry from coastal area to non-coastal area of China, which is more competitive than some ASEAN countries. The author argues that by doing so, the coastal area of China could upgrade its industrial structure from labor-intensive to capital and technology-intensive industry, while non-costal area could duplicate coastal area's successful economic development model to accelerate economic growth of China.

Chapter 5 reviews the experience of exchange rate regime reforms of Japan, Korea and Taiwan and draws implications for China's ongoing exchange rate regime reform. The author observes that gradualism approach is better than one-off approach. The author also points out that follow-up easing monetary and expanding fiscal policies are needed, while the timing and scale of these policies are equally crucial. The author contends that exchange rate regime reform should be seen as an integral component of broad financial system reform, and the policies for the long-term economic structure adjustments and industry upgrading need to be prepared.

Chapter 6 analyses the RMB internationalization from the Chinese perspective as well as that of regional integration in East Asia. In addition, the author assesses the potentiality of RMB as an international currency by forecasting the share of the RMB as a reserve currency in the coming decades. The Chinese authority has shown explicit, in some aspects, aggressive intention to internationalize the RMB since 2009. The author argues that considering China's increasing prominence in world economy, the RMB has a potential to become the next leading international currency in the medium or long term. A possible road map for the RMB internationalization is to begin from RMB settlement in cross-border trade, followed by regionalization of the RMB, and finally globalization. With respect to achieving the functions of an international currency, the RMB should first become a settlement currency, then a denomination currency, and lastly, a reserve currency. Given relatively immature financial markets, absence of regulatory body and laws as well as underdeveloped risk management capacity, gradualism may be the optimal strategy for China to internationalize the RMB. RMB internationalization should move in parallel with China's ongoing financial system reform, liberalization of capital account, and exchange rate policy reform. Any unrealistic and aggressive strategy in RMB internationalization would distort China's original goal, and may hurt China's economy as well as the world economy.

Chapter 7 concludes the dissertation. It briefly summarizes the main findings of the dissertation. In addition, it discusses limitations of the dissertation and makes some suggestions for further research.

III. Evaluation

The dissertation contributes significantly to deepen the understanding of the issues related to China's exchange rate system in several respects by conducting careful empirical analyses. First, the author successfully obtained a new set of estimates on the weights of various currencies in explaining the movement of RMB by using daily rates and by dividing the sample period into several sub-periods. From the analysis, the author revealed the changes in the weights in that the weight given to the US dollar declined over time. Second, the author examined the degree of misalignment of the RMB, that is, either undervaluation or overvaluation, by adopting the behavioural equilibrium exchange rate (BEER) approach to monthly data rather than yearly or quarterly data which were used in the previous studies. The author found that the degree of misalignment became smaller over time, supporting a view that the reform of foreign exchange regime in China contributed to the improvement in the functioning of foreign exchange market. Third, considering that exchange rate influences country's international competitiveness, the author compared international competitiveness of China relative to ASEAN. Unlike earlier studies that evaluated country's competitiveness, the author analyzed competitiveness of different regions/provinces in China, recognizing remarkable diversity among them. As expected, the author found substantial differences in international competiveness among different regions. Some regions have lost competitiveness vis-à-vis ASEAN but some regions still maintain competitiveness.

These empirical analyses, which were conducted carefully and appropriately, are major contributions of the study. These contributions are evaluated very highly. Having appreciated these contributions, there still remain a number of research agenda, in order to further deepen the understanding of China's exchange rate systems and policies. For example, a study of the degree of misalignment of the Chinese exchange rate using different approaches such as the fundamental equilibrium exchange rate approach besides the BEER approach should be conducted, so that a more detailed scrutiny may be undertaken. A study of the regional differences in international competitiveness may be further elaborated by examining the export performance of the regions. International competitiveness of the regions that was analysed by the author is "potential" rather than "realized or revealed" international competitiveness. As such, the analysis may not be realistic. Even if a region is found to be internationally competitive, the region cannot export products if the region is landlocked and has no means of international transportation. Under such circumstance, an analysis of international

competitiveness is of no use.

IV. The Decision of the Committee

Considering the results of careful assessment of the submitted dissertation, which is presented in section III of this report, the oral presentation of the dissertation and subsequent discussions, which were held on May 10, 2014, the Committee members came to a unanimous decision that Yuming Cui, the author of the submitted dissertation, should be granted a Ph.D.

May 19, 2014

Evaluation Committee

Main Examiner: Shujiro Urata, Ph.D (Stanford University)

Professor, GSAPS, Waseda University

Deputy Examiner: Nobuhiko Fuwa, Ph.D (University of California, Berkeley)

Professor, GSAPS, Waseda University

Examiner: Hiroya Akiba, Ph.D (State University of New York at Binghamton)

Professor, Faculty of Political Science and Economics, Waseda University

Examiner: Saang Joon Baak, Ph.D (University of Wisconsin, Maddison)

Professor, Faculty of International Research and Education, Waseda University