

The Japanese Central Banking System Compared with Its European and American Counterparts

Yoshiharu Oritani

The Japanese Central Banking System Compared with Its European and American Counterparts

A New Institutional Economics Approach



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Foreword

In any country, a central bank is an organization deemed intriguing, one that at times is considered more mysterious than necessary. Reflecting this or not, there are a countless number of studies and books on central banks. I have had opportunities to read such writings from time to time since I joined the Bank of Japan, but through experiencing various workplaces within the Bank, I have come to feel a perception gap between the central bank as I understand it and as it is perceived and presented in books. This gap seems to have widened with the passage of years.

Such a gap not only is about monetary policy, such as how one evaluates the effect of quantitative easing, but also is about the very existence of a central bank. My perception gap may be summarized under the following three points: first, while a central bank is an organization whose principal objectives are to supply money and maintain its value, various operations related to having bank deposits work as deposit money, especially tasks in the field of payment and settlement systems, are not recognized or analyzed as much as they should be. Second, while central bank tasks, including monetary policy, are conducted through actual transactions and not in the form of administrative directives or orders, such a perspective is not abundant in the literature. Third, surprisingly enough, people seem simply unaware of the self-evident fact that a central bank is an organization like any other. Two factors characterize an organization: (a) various governance mechanisms that influence the behavior of an organization and its components and (b) morale and ethos that are not necessarily included in governance. Even when we limit the topic to the mechanism of governance, researchers' interests are focused on what in this book is called public governance and rarely go beyond that to a discussion of governance within central bank organization.

The three points mentioned above are, at a glance, small practical themes. However, as the saying goes, "the devil is in the details." If we do not recognize these points, my experience tells me that no matter how grand the policy is, any discussion of it is likely to be hollow. I am not suggesting that economists have neglected these themes. Over the past 20 years, new institutional economics such as transaction cost economics has developed significantly, as exemplified in the awarding of the 2009 Nobel Prize in Economics to Professor Oliver Williamson.

Such a new wave of studies could bring about considerable development in central bank theory, but I am afraid such challenges have not been fully accepted and pursued. Someone must fill this vacuum and Professor Yoshiharu Oritani does just this in his book titled *The Japanese Central Banking System Compared with Its European and American Counterparts: A New Institutional Economics Approach*. This book most fit for the task and one that directly challenges the subject with a refreshing tone and approach. I have not come across a book of similar flavor either in Japan or overseas to date.

I joined the Bank of Japan in 1972 (the same year as Yoshiharu), and we worked side by side in Foreign Department (the current International Department) and the Special Research Office (currently the Institute of Monetary and Economic Studies). Yoshiharu studied monetary economics that applied time series analysis and then became involved in the banking area of a central bank such as bank examination and payment and settlement systems. He also has ample experience in the international arena and has contributed to developing central banking and payment and settlement systems in Central and East Asian countries and transition economies. This book reflects the diverse experience Yoshiharu had while he worked for the Bank of Japan.

It is important for researchers to continuously provide new perspectives. Throughout this book, the reader will be presented with unique ideas and interpretations based on his 30 years of experience at the Bank of Japan and research at Meiji University. Readers will inevitably agree or disagree with them, but I believe that developing and deepening this kind of research will lead to the further progress of central banks. As one of the central bankers who along with Yoshiharu dedicated a long career to the Bank of Japan, my fondest hope is that this book will be read by as many readers as possible who are interested in central banks.

Tokyo, Japan

Masaaki Shirakawa
Former Governor of the Bank of Japan

Preface

This book has three objectives. The first is to attempt to apply new institutional economics (NIE), especially transaction cost economics (TCE), organizational economics, and public choice theory to central banking such as the governance structure, functions and services provided by central banks. Application of these theories to central banks means to test whether they have the same analytical viability as when applied to other systems and corporate organizations. Until now, past experience and political decision have been the only tools in designing the governance and scope of functions and services provided by a central bank, and institutional economic theories have not been referred to.

The second objective is to place special emphasis on the Bank of Japan (BOJ), in particular to clarify the cause of a problem (how to maintain independence) that the bank is facing by applying NIE. When the BOJ Act was revised in 1998 for the first time in 50 years to strengthen its independence, it was generally seen in a positive light. However, once Prime Minister Abe took office in 2012, the administration made what should be an independent central bank adopt monetary policy that was in line with the administration's ideas, namely bold quantitative easing. The lesson learnt is that central bank independence cannot be defended solely by law and a mechanism to be able to reject advances from politicians needs to be embedded within the governance structure. Here, it should be noted that the author is well versed in various aspects of BOJ based on a 30-years career and 'participant observation.'

The third objective is to apply NIE to central banks in Europe and in the US to be able to make comparative analysis with the BOJ. The analysis covers governance structure (board structure and capital), as well as functions and services provided by the central bank (the supervisory authority of financial institutions, foreign exchange rate policy, and payment and settlement services). In this connection, the book analyzes the global financial crisis of 2007–09 that stemmed from the US by applying behavioral economics. Public choice theory is applied to consider measures to strengthen the central bank's role so that such crises can be avoided in the future, e.g., to retain seigniorage within the central bank. The comparative analysis provides useful insights when considering questions such as

whether a central bank should issue electronic money and whether something akin to the European System of Central Banks (ESCB) could be established in Asia.

In the first place, a central banking organization and system are considered particularly unique within the economic arena. For example, Paul Samuelson and William Nordhaus (2010, p.475) quotes in their famous economics textbook (at the beginning of Chapter 24 entitled “Monetary Policy and the Economy”) from writer/humorist, Will Rogers (1879–1935):

There have been three great inventions since the beginning of time: fire, the wheel, and **central banking** (emphasis by Oritani).

And M. Mitchell Waldrop (1992, p.243) introduces Brian Arthur’s words in his book *Complexity* in Chapter 7 entitled “Peasants Under Glass” as follows:

Now, my earlier interests had been how economies change and develop in the Third World....I had this notion that you could have within your office in the university a little peasant economy developing under a bubble of glass. Of course, it would really be in a computer....Then in this dreamlike idea, you’d go in one morning and say, ‘Hey, look at these guys! Two or three weeks ago all they were doing was bartering, and now they’ve got joint stock companies.’ Then next day you’d come in and say, ‘Oh, they’ve discovered **central banking**’ (emphasis by Oritani).

Note that both authors, whether intentionally or not, say “central banking” and not “money.” Indeed, a central banking organization and system that provide central banking services are, in various aspects, an interesting entity.

First, a central bank is a ‘bank of issue’ that issues banknotes as a major cash currency under a fiat currency system. After inventing money, mankind liberated it from natural materials such as gold and silver, replacing it with inconvertible notes which are bank debts, and, in due time, a central bank was established as the only entity that could issue such notes. Second, a central bank plays the role of ‘bankers’ bank,’ taking deposits from financial institutions (i.e., private banks, ‘banks’ hereafter) and providing credit. The deposits are used for interbank settlements, and therefore, central banks are deeply involved in payment and settlement systems. On the other hand, central bank credit encompasses not only simple lending to banks but also liquidity provision to overall financial markets through the purchase of various financial assets. Moreover, considering that a central bank has the ability to provide liquidity, is involved in payment and settlement systems, and has a close relationship with private banks, it plays the role of maintaining financial system stability as well as regulating and supervising banks. Third, a central bank holds government deposits as the ‘bank for the government’ and at the same time extends lending to it and purchases government bonds. Besides the provision of banking services, a central bank stands in a complex and diverse relationship with the government that involves the appointment of high officials of the central bank and management of monetary policy.

Central banking systems, at the core of which is the central banking organization (simply ‘central bank’ hereafter), are undergoing comprehensive reform worldwide having seen the transition to a market economy of former socialist republics of the Soviet Union and the global financial crisis of 2007–09. For example, the European

Central Bank (ECB) was established in 1998 prior to the introduction of the euro in 1999 and its role is the subject of heated discussion in light of the Greek financial crisis (2009–12) in Europe. Following the global financial crisis of 2007–09, the roles of the Federal Reserve System (FRS) and the Bank of England (BOE) in the prudential policy area have been strengthened in both the US and the UK. In Asia, many countries underwent central banking system reform after the Asian financial crisis in the late 1990s. For example, the BOJ Act was revised in 1998 for the first time since World War II.

These central banking system reforms, excluding discussion on central bank independence, have been implemented without due consideration being given to institutional economic theories and rather decided from historical and political perspectives or experiences of the pertinent officials concerned. In order to adapt to changes in the financial and economic environment as well as financial systems, discussion and reform of central banks should be a continuing topic for the future. In this regard, analysis of central banking systems applying institutional economic theories can provide those concerned with what an optimal central banking system might look like based on efficiency and rationality and at the same time is itself expected to become a springboard for objective argument regardless of the positions of the parties.

Hitherto, the main reason why central banking systems were not analyzed based on institutional economic theories is that in traditional economics necessary tools to explore organizations and systems were not available. However in recent years, economic tools for discussing organizations and institutions have developed significantly. In particular, transaction cost economics developed by two Nobel Laureates, Ronald Coase (1991 winner) and Oliver Williamson (2009 winner), became the nucleus of new institutional economics, organizational economics, comparative institutional analysis, and public choice theory. Among them, NIE differs from old institutional economics prior to World War II in that while it basically respects instruments of traditional economics as much as possible, it utilizes the recent development of microeconomics such as information economics. By linking a system and transactions among agents that comprise it, NIE enables the exploration of subjects surrounding the institution based on economic theories. Similarly, organizational economics uses almost the same fundamental theory as NIE which allows discussion of various organizations (i.e., corporate organization that used to be a theme of business management in the past) based on economic theories. Moreover, comparative institutional analysis provides economic theory that could compare and discuss corporate organizations, economic systems in various countries, and historical background. These economic theories differ in purpose and subject analyzed but have many aspects in common regarding theoretical framework, and therefore, we regard them all as NIE.

Recently, various issues regarding the financial system, from *raison d'être* of financial institutions (i.e., banks) to issues regarding the Japanese main bank system, have been researched applying NIE. However, to date, there is no full-fledged research on central banking systems based on NIE. From NIE, this book will mainly apply TCE, as well as public choice theory and agency theory to analyze

central banking systems (organizational culture theory and sociology of culture are also partially applied).

In this regard, for readers who are not well versed in the above theories, and also to clarify my own understanding of them to readers, an outline of all applied theories is first given before applying them to central banking systems. Practitioners as well as scholars and students are the intended audience for this book. Practitioners include those in the financial industry, especially central bankers and those working in organizations similar to central banking organizations. Intended scholars and researchers are those studying either money and banking or NIE. In addition, this book is written so that undergraduates interested in the subject will be able to understand with minimal knowledge of financial systems.

There are various benefits in applying NIE to analyze central banking systems. First, we can confirm the efficacy of NIE. A central banking system is a unique entity within a financial and economic system, and to know to what extent NIE is valid in analyzing such an important economic system would be useful for the future development of NIE.

Second, to confirm the efficacy of NIE in the study of central banking systems would also mean discussing to what extent NIE is useful in analyzing organizations and systems that have similar characteristics to a central bank. The central bank is a unique organization that is neither government nor private but has both features. Therefore, we could in turn consider whether NIE could be applied to the research of various types of exchanges such as stock exchange as well as semi-governmental corporations and banks.

Third, studying central banking systems based on economic theories could correct my biased view, if any. This book comprises research based on my experience at the BOJ and observation of overseas central banking organizations and systems. This type of research is similar to a research method termed ‘participant observation’ where research is conducted by actually participating in a target organization or society. While this method allows the researcher to collect detailed information on the target organization and society, it entails the risk of a biased view, either affirmative or critical of the target organization. I have tried to be as objective as possible and to be neither critical nor affirmative of central banks and the views of the BOJ. However, nothing can be completely objective. Thus, recognizing the possibility of value judgments on my part coming through, I believed that applying economic theories would minimize any negative aspect of participant observation-style research.

Fourth, economic theories are constructed with clear premises and logical consistency and therefore can be useful as communication instruments between myself and readers. This book provides my views and opinions on governance structure and roles of a central bank based on economic theories. If readers read through the book following the logic of various theories, they should be able to understand my views and opinions and recognize any fallacies.

The book does not clearly differentiate between ‘central banking system (=institution)’ and ‘central banking organization’ although NIE has separate definitions: “Note that the term ‘institution’ refers to the rules of the game, whereas

‘organization’ refers to players of the game” (*Glossary for New Institutional Economics*, The Ronald Coase Institute website).

If we adapt this to a central bank, a ‘central banking system (=institution)’ comprises the overall rules that players in a socioeconomic system including a central bank abide by, and a ‘central banking organization’ is the central bank itself, a player that operates under such an institution. However, within an organization, there are also players such as managers and employees that act abiding by the organization’s rules of the game. Therefore, a central banking organization can be regarded as an institution as well as a player (managers and employees) meaning that NIE can be applied to the issues of a central banking organization.

I have been planning to write this book ever since working at the Bank of Japan (BOJ). Joining the Bank in 1972, I became especially interested in central banking systems, an interest which deepened after I worked in the fields of bank supervision and examination as well as payment and settlement systems. However, I soon discovered that the traditional economics I studied at university and at the Institute of Monetary and Economic Studies (IMES, BOJ) could not assist me in engaging in theoretical analysis of central banking systems. Then, in 1991, when I was in charge of researching financial systems at the Institute, Professor R. Coase received a Nobel Prize which prompted me to research the development of Coase–Williamson type new institutional economics and think about the possibility of applying it to central banking systems since the theory challenged the organizational and institutional issues head-on. I subsequently became involved in a project that made me think about the very existence of central banking systems, both directly and indirectly. Specifically, from 1993, I was engaged in technical assistance regarding central banking systems and their operation to central banks of former republics of the Soviet Union that were established after its collapse. And, after the Asian financial crisis, I became member of the World Bank mission to the Bank of Thailand (led by E. Gerald Corrigan, Former President of the FRB New York) in response to the request by the then Thai Minister of Finance regarding revision of the Bank of Thailand Act.

Through these experiences, I became very aware of the necessity to analyze central banking systems theoretically. Therefore, after I moved to Meiji University in 2002, I wrote research papers on central banking systems that applied new institutional economics which were released in succession in *The Bulletin of the Faculty of Commerce* (in Japanese), Meiji University, based on the ideas I had developed during my days at the BOJ.

In the meantime, I had also been deeply involved in payment and settlement systems since I first stepped into the field in 1984. At the BOJ, I researched payment and settlement systems at the IMES, took part in technical assistance in International Department to construct payment and settlement systems for the Kyrgyz Republic, and later took a post in the Financial System Department. Meanwhile, I became member of the Committee on Payment and Settlement Systems (CPSS) at the Bank for International Settlements (BIS), and chaired the Working Group on Payment and Settlement Systems of the Executives’ Meeting of East Asia-Pacific Central Banks (EMEAP). For my seminar at Meiji University,

I had been taking up the study of financial information systems as the theme, the focus of which was payment and settlement systems.

This book is comprised of roughly two parts. The first part (from Chap. 1 to Chap. 3) discusses the fundamental structure of a central banking system which begins with the rationale of central banks and followed by the governance structure and public governance of central banks. The latter part (from Chaps. 4 to 7) explores the relationship between the main central bank functions and its organization/system. As the main central bank functions, monetary policy, prudential policy, financial crisis management, and payment services are discussed. However, we do not cover central bank functions comprehensively, but rather focus on major functions that are often the subject of discussion. The main discussion points of each chapter are as follows:

Chapter 1 applies TCE, namely theory on three modes of economic systems (market mode, hierarchy mode, and hybrid mode), to examine the fundamental *raison d'être* for the existence of a central bank within a banking system. We conclude that a two-tiered system with both a central bank and commercial banks coexisting could minimize the transaction costs of interbank transactions. From this analysis, implications are drawn to consider the significance of establishing a supranational central bank such as the ECB and the supervisory role of a central bank.

Chapter 2 focuses on central bank organization and considers its governance structure, rather than as just a central bank within the financial system. Features of goods and services provided by the central bank are first analyzed based on the theory of club goods. Then, TCE is applied to explain that the governance structure of a central bank contains features of both public and corporate governance. And, in order to incorporate these two features, it is appropriate to adopt a multiboard system for the central bank's supreme decision-making body where several boards coexist to take on different responsibilities. Central bank governance structure has two aspects, 'ownership' and 'organizational governance,' just like the governance structure of a private company. This chapter will also consider the characteristics and role of a central bank's capital stock as part of central bank ownership.

Chapter 3 discusses public governance of a central bank based on the theory of bureaucracy cost, agency theory, and public choice theory from new institutional economics. The importance of probity in central bank governance structure as well as central bank independence under representative democracy is explained.

Chapter 4 looks at two aspects of governance (ownership and organizational governance) by applying the theory of organizational boundaries, multitask agency theory, and theory of organizational culture. The analysis explicates the appropriateness of a central bank to be responsible for monetary policy management and issues related to managing monetary policy together with foreign exchange policy and prudential policy. As for the latter, the design and management of a board system are considered to mitigate such issues.

Chapter 5 discusses the relationship between a central bank and prudential policy such as regulating/supervising financial institutions using the theory of organizational boundaries and agency theory. We conclude that a central bank

needs to manage prudential policy and that duplicate supervision by various supervisory authorities is important.

Chapter 6 analyzes the failure of the US monetary authorities in terms of their financial crisis management during the global financial crisis of 2007–09 by applying behavioral new institutional economics that integrates behavioral economics and new institutional economics. From the analysis, rationale is offered for the necessity of providing risk money in times of crisis and also an explanation of issues related to the decision-making process under representative democracy. Then, based on public choice theory, the role of a central bank in time of financial crisis will be discussed from the perspective of utilizing central bank seigniorage.

Chapter 7 deals with payment and settlement systems. First, the theory of organizational boundaries is applied to discuss the role of a central bank in providing payment and settlement services. We point out that the central bank needs to own securities' settlement systems as well as be involved in retail payment systems, including electronic money. Next, we look back on how Continuous Linked Settlement Bank (CLS Bank) was established for interbank foreign exchange transactions applying the theory of peer group association from TCE and consider the need to realize the globalization of central bank payment and settlement systems by linking systems among central banks. Lastly, the theory of bureaucracy cost from TCE is applied to consider governance of payment and settlement systems managed by a central bank, especially with regard to the relationship between the governance of central bank payment systems and design/management of a board system.

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Institutional Economics of Central Banks, *Proceedings of the 21st SEANZA Central Banking Course*, People's Bank of China, 1997.

Public Governance of Central Banks: An Approach from New Institutional Economics, *BIS Working Paper*, No. 299, March 2010.

Other chapters are based on 12 research papers written for *The Bulletin of the Faculty of Commerce*, Meiji University, which were subsequently revised for the original Japanese edition of this book. Then, in compiling this English edition, they were revised and updated.

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Abbreviations

ACH	Automated clearing house
BIS	Bank for International Settlements
BOE	Bank of England
BOJ	Bank of Japan
BOT	Bank of Thailand
CCP	Central counterparty
CLS Bank	Continuous Linked Settlement Bank
CPSS	Committee on Payment and Settlement Systems
CSD	Central securities depository
DTCC	Depository Trust & Clearing Corporation
DVP	Delivery versus payment
ECB	European Central Bank
ECSDA	European Central Securities Depositories Association
ESCB	European System of Central Banks
FCA	Financial Conduct Authority
FOMC	Federal Open Market Committee
FPC	Financial stability policy committee
FRB	Federal Reserve Bank
FRS	Federal Reserve System
FSA	Financial Supervisory Agency
FSOC	Financial Stability Oversight Council
MOU	Memorandum of understanding
NCB	National Central Bank
NIE	New institutional economics
OCC	Office of the Comptroller of Currency
PRA	Prudential Regulation Authority
PVP	Payment versus payment
RBA	Reserve Bank of Australia
RBV	Resource-based view
RTGS	Real-time gross settlement system

SCB	Supranational central bank
SEC	Securities and Exchange Commission
T2S	TARGET2-Securities
TARGET	Trans-European Automated Real-Time Gross Settlement Express Transfer System
TBTF	Too big to fail
TCE	Transaction cost economics
UK	United Kingdom
US	United States