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Bibliographical Introduction of the Japanese Edition Jean Tirole's Economics

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Jean Tirole, one of the most renown economists in France, was awarded the 2014 Nobel Prize for Economics. Tirole, born in 1953 and now 65 years old, acquired engineering degrees from the École Polytechnique (School of Science and Engineering) in Paris, and received a Ph.D. in economics from the Massachusetts Institute of Technology (MIT) in 1981. From 1984, he worked as an associate professor and a professor of economics at MIT. Currently, Tirole is Scientific Director of the Industrial Economics Institute (IDEI) at Toulouse 1 University Capitole and Chairman of the Jean-Jacques Laffont Foundation at the Toulouse School of Economics, which was established to commemorate the late Jean-Jacques Marcel Laffont, a French economist and the founder of IDEI who died on May 1, 2004 at the age of 57. Tirole has been a member of member of the Institut de France since 2011.

Tirole's research scope is wide and extensive, conducting first-grade research in fields such as industrial organization theory, regulation policy, organization theory, game theory, finance, macroeconomics, economics and psychology. His research activities are outstanding among active economists worldwide. For example, Tirole has published over 200 professional articles in economics and finance, and most of them are appeared in Top 10 economic journals. He also has written twelve major books. Each of them is precise and extensive like an encyclopedia, serving as primary references for many researchers.

His research networks make such extensive research possible. It is extremely difficult and time-consuming to understand the actual state of the banking and the telecommunication industries or the specific fields which have been refined in this complex society. Tirole selects an outstanding expert in each field as a joint researcher and continues to write papers on a specific field. By doing this repeatedly, he grasps the essence of the field and leaves it as research result. Tirole's joint research system is an excellent exsample showing how a social science researcher should proceed with joint research. According to a researcher who is studying the network structure, Tirole's joint research network is proved to be the most extensive and robust among other economists' networks.

This is the first book written by Tirole to enlighten general readers on economics. As a long-time friend of Jean Tirole, I would like to highlight noteworthy points in this book.

The original title of the book Économie du Bien Commun, means "Economics of the common good" in direct translation in English. We tried to think of the title of the Japanese edition close to the original, but unfortunately Mark A. Rutz already published a book titled *Economics for the Common Good* (Japanese title: *Kyotsuzen* no Keizaigaku, translated by Shinko Baba, published by Koyo Shobo in December 2017); therefore, to avoid confusion, we named the book title as Economics for the Good society. The keyword Bien Commun (Common Good) used by Tirole is the concept argued by Plato and generalized by Aristotle in the ancient days. However, Plato was basically oriented towards politics of philosophy, and thought that the good should be decided transcendentally beyond people; hence, he did not think of the good shared among the people. To the contrary, Aristotle classified the national system and insisted that the tyranny pursues personal interests only, whereas the correct national system is a community of free people which enables everyone to pursue common interests. It is said that Aristotle's common good is a premise for maintaining a community including a country and that represents a common value for free and fair people.

Economics, for Tirole, is a means to achieve the common good defined by Aristotle, positioning to provide a framework for thinking the common good. In other words, as clarified in the introduction of this book, Tirole raises a question that how economists can contribute to the realization of the common good and, as his

answer for it, he declares the following:

"Economics is not in the service of private property and individual interest, nor does it serve those who would like to use the state to impose their own values or to ensure that their own interests prevail. It does not justify economies based entirely on the market nor economies wholly under state control. Economics works toward the common good; its goal is to make the world a better place. To that end, its task is to identify the institutions and policies that will promote the common good. In its pursuit of the well-being of the community, it incorporates both individual and collective dimensions. It analyzes situations in which individual interest is compatible with the quest for collective well-being, as well as those in which, by contrast, individual interest hinders that quest."

This is Tirole's economics declaration (manifesto) and it flows consistently throughout this book.

When I read this economics declaration, I remember the historic alleys on Tirole's way to and from the Toulouse School of Economics. In the alleys, there is a place where Pierre de Fermat, the 17th-century mathematician famous for Fermat's theorem, lived and worked as a lawyer. He also conducted research on the number theory which has been great influences on future mathematicians. Furthermore, there is a lycée (high school) which has been named after him. In front of the lycée, there is the Jacoban monastery where Thomas Aquinas, the pinnacle of Scholasticism, who revived the philosophy of Aristotle in the Middle Ages, is buried.

Aquinas distinguishes the common good of Aristotle as "the universal good" and "the community-specific good." He thought that the god was positioned at the top of the former, and the latter is "the common objective to be realized by the people." According to Aquinas' book *de regno ad regem cypri*, he mentioned that in accordance with Aristotle, the correct regime pursues the common good of free and fair people.

When Tirole was planning this book, some thoughts--how he can express economics, which was succeeded from the Greek era to the medieval period, then structured by Adam Smith, under the intellectual tradition of Europe--must have

run through his head. Indeed, Adam Smith also started the underlying economic research for *the Wealth of Nations* during his one-and-a-half years stay in under Toulouse (March 1764-October 1765). Most Japanese might not recognize, but Toulouse is a place that has a special meaning in Europe in terms of intellectual tradition; thus, the title of this book, named by Tirole, is fully conscious of the meaning.

As you can see from the table of contents, it comprises five parts. In Part I and Part II, which compiles his frank talks to general audiences after winning the Nobel Prize at various opportunities, he talked about the way economics ought to be, works of economists general, and transition of their themes. From Part III onwards, Tirole has developed ideas for various issues that have been addressed as individual economic problems. In particular, Part IV and Part V summarize the results of extensive joint research conducted by Tirole and his collaborators.

Before describing Part I and Part II, let's see Part III. The part deals with two important systems as follows under the theme titled *An Institutional Framework for the Economy: Chapter 6, Toward a Modern State* and *Chapter 7, The Governance, and Social Responsibility of Business.* Chapter 6 shows that how the market and the state complement each other while their failures are coexisting, as well as discusses what kind of political system and delegation of political authority is desirable. Chapter 7 addresses issues concerning corporate governance. This is Tirole's specialty field with significant research accumulations. In this part, he indicates his awareness of the issues most briefly, but it has deep implications about how corporate organizational forms and social responsibilities ought to be.

Part IV discussed the theme of *The Great Macroeconomic Challenges*. It comprises from chapters 8 to 12, dealing with topics that are interesting not only to general readers but to policy makers. Indeed, the topics covered here are the fields that Tirole researched and discussed actively, being commissioned by the government, the central bank and international organizations. In the joint research of public and private studies that Tirole has been conducting, a highly flexible approach has been adopted by listening to both public and private opinions in selecting policy where the social demand is strong. The part shows the results from the approach sufficiently.

Part V discusses *Industrial Challenges*, consisting of five chapters, which are chapter 13 to chapter 17. Tirole probably has been pouring most of his energy in this fields; thus, this part summarizes his recent research results. I would like to add that Tirole's speech at the Nobel Prize ceremony was the summary of Part V.

Tirole is interested in the industrial organization theory and the industrial policy. In particular, he has been examining multifacetedly how the digital technology will change the social economy. He also warned against Bbitcoin and its accompanying bubble phenomenon in the *Financial Times*, a major British newspaper (on November 30, 2017), though the he did not mention about it in this book. In that article, he claims that Bitcoin is a pure bubble and states as follows: Because it is an asset without intrinsic value, its price will fall to zero if trust vanishes. Of course, there are undeniably certain successful, long-lasting, bubbles: gold, dollar, the pound or the euro. No one can say with certainty that Bitcoin will crash soon. But when I am asked if it contributes to the common good, I need to say "NO."

Though Tirole does not deny technological innovation such as blockchain, he insists that ICO (initial coin offering), a financing tool used by virtual currency issuers, is an extremely dubious mechanism, and that the government should prohibit transactions using bitcoin or ICO or protect citizens and financial institutions from getting involved in those dangerous transactions. As long as the virtual currency including bitcoin circulates among a limited number of enthusiasts, it will not affect the macroeconomy or the central bank's monetary policy. But when it gets widely involved in the entire population, the government should not leave it, considering the risk that those transactions' risks and the social expenses associated with the potential collapse of the bubble economy. From Tirole's belief that economics' purpose is to work toward common good and to make the world better, this judgment will be quite natural.

Let's get back to Part I *Economics and Society* and see what Tirole is talking there. In Chapter 1, *Do you like economics*? Tirole suggests what economist should do to spread economics. In short, economists should play a role to convey knowledge more aggressively, instead of being satisfied by staying in the ivory tower to write papers for experts only. Tirole says, "Economists should make more efforts to make the economics education fit to the reality and more intuitively understandable. To

that end, it is necessary to teach focusing on the issues of modern markets as well as corporate and government decision-making." I think this is a typical example of proverb, *it's easier said than done*. Indeed, many economists in Japan seem to pretend to provide economics education using outdated American textbooks repeatedly without adding any critics based on their experiences or policy issues.

However, it is true that economics' textbook widely used in America cannot be imitated easily as they include carefully thought-provoking discussions and extensive illustrations. Briefly, the institutionalization of economics has been advanced in America, meaning that you can get almost the same economics understanding by studying at any university using high quality textbooks, and for that reason, famous professors (e.g. Mankiw, Stiglitz, Krugman, Taylor, etc.) have formed the textbook teams with major publishing companies, working on creating textbook as one major industry. It would be difficult to make such a system in Japan's publishing industry. Microeconomics' textbooks mainly consist of theoretical discussions and less applications; therefore, it may easier to produced textbooks in Japanese. Nevertheless, Japanese text books are pale by comparison with those of American in terms of discussions on macroeconomics, industrial organization and game theory.

Tirole has produced textbooks of the industrial organization theory, game theory, industrial regulation theory, corporate finance theory, and so on, for graduate schools, gaining global recognition. He is the economist who carries out his words. I have not heard from Tirole that he forms a team with a publisher to produce a textbook. He drew up a plan by himself, wrote each chapter steadily, and added issues he had dealt with in his research papers to exercises in textbooks to improve their quality. When you read Tirole's textbooks, you can see how passionate he is about economics education.

Chapter 2 Moral Limits of the Market discusses the fact that market failures and market moral limitations are often confused. Tirole argues, after showing examples of various market failures, that incentive, a notion used by economists, is nothing but the motivation through the market, and market criticism by many social scientists also targets the incentive. Certainly, if an incentive is provided to a socially favorable action as remuneration, we may refuse to be thought that the action is taken to receive remuneration by avoiding those actions.

In addition, against the economic theory that the market mechanism optimally performs all resource allocation, Tirole discusses that the moral aversion exists in the society against the fee paid for organ trafficking, surrogate mothers, prostitution, and military service escape. In other words, how can economists respond to the argument that there is something that cannot be dealt in the market or that the price cannot be put on lives? Tirole says that the market sometimes becomes a scapegoat of our hypocrisy. The market does not strengthen nor weaken the social bond. However, it becomes a mirror reflecting our mind. The mirror clearly shows various aspects of society's realities as well as our desires and preferences that we want to hide from others and even ourselves. It is impossible to break this mirror by eliminating the market. However, he concludes that once the mirror is broken, it is no longer possible to evaluate the values of individuals and groups. Many economists have indicated each understanding of the market, but this Tirole's insight is particularly excellent.

Part II *Economist's Profession*, takes a rare topic as a book written by an economist, as mentioned in the preface of the Japanese edition. It is about economists ' roles, professions, and recent research topics. Though this is a book for novices, it is unusual for an economist to talk frankly about the internal affairs of the academic community. Whether economic research books, documents or textbooks, few deals with issues such as how to evaluate economists' profession and social contribution, how they contribute to society, and how we can think of university rankings including economics departments. In the following sections, let's examine Tirole's monologue in a bit more detail.

In Chapter 3, *The Economist in Civil Society*, Tirole's views on the social roles of economists are presented. How should economists interact with the industries and the political world? He replies, "Academics must also collectively aim to make the world better place; consequently, they cannot refuse, as a matter of principle, to take some interest in public affairs......Researchers have an obligation to society to take positions on questions on which they have acquired professional competence." He specifies that it is not good to seclude oneself in the ivory tower. Of course, scholars have various types: a scholar who is devoted to abstract research, a scholar who gets pleasure in tackling social application problem, a scholar who pays enthusiasm for student guidance, and so on. Therefore, he does

not deny the attitude which finds and specializes in one's own comparative advantage. In addition, he states that remuneration of French scholars is 70-80% less than that of American scholars. His many colleagues are supplementing remuneration in various works: a visiting professor of foreign universities, a consultant of a private enterprise or a public institution, a partner of an accounting firm or consulting company, and so on. He affirmed the trend, saying "it is a price that must be paid in order to retain outstanding researchers in the country." Japan faces exactly the same situation. We should think seriously how we can retain excellent researchers in this age when talents can receive many job offers from abroad as much as they have abilities; thus, the insight of Tirole is helpful.

At the same time, however, Tirole argued that a strict evaluation by a third party should be adopted as a mechanism for scholars to focus time on their research or education, instead of such side jobs. He also gives the utmost warning against scholars' obsequious attitudes such as changing one's view in academic activities to please companies or government offices which pay remuneration for them. In that sense, Tirole is extremely careful about the relationship with politics. He is against politically committed intellectuals and has chosen to discuss policies from an absolutely independent and neutral standpoint as a scholar.

Chapter 4 The Everyday Life of a Researcher starts its discussion from the viewpoint of economics, namely the relationship between a theory and an empirical work, and ties it to a question, "Is economics science or not?" The answer is that it is both scientific and non-scientific. Part of the reason is that data is insufficient and understanding of phenomena is incomplete; however, more significant reason is that, in comparison with natural science, human behavior is much more complicated than other physical or chemical phenomena as well as interdependent. After these discussions, he suggested whether it is appropriate to evaluate and rank such economic research. As many of you know, only a small number of French and Japanese universities rank in the top 100 in world's best universities and world's best universities by academic field. Unfortunately, Toulouse School of Economics, where Tirole teaches, and Hitotsubashi University, which I belong to, are not included in the rankings. As long as comparison among economics fields, those ranking will improve a little, but it is still quite difficult to ranks as one of the top universities. Tirole would be thinking a lot as a manager of the university. After pointing out some defects of those rankings, Tirole says: "I would vigorously

defend their use." As the reason he mentions "France does not have the culture of academic evaluation that could use the significant differences in creativity between French research groups or between those groups and the best institutions globally. Therefore it is often difficult for students and decision makers to identify the most innovative and internationally high–profile French research institutions. Rankings are important when there is a shortage of other relevant information." The situation in Japan is exactly the same as France. Therefore, when I and Tirole meet, we often discuss the university evaluation issue and cooperate with each other to increase evaluations of the universities we belong by exchanging information.

So, in order to provide fair assessments, how evaluations of specialized fields should be conducted? The global standard of the economic science is evaluation conducted through external assessment and review by experts in the same field (it is referred to as "peer review"). Tirole says: "Careful evaluation of articles is essential if the research community is to function properly, and for the accumulation of scientific knowledge." In economics circles, only peer reviewed articles are subject to the evaluation for assessing researchers' achievements, presupposing that the peer reviews were carried out properly. If a peer reviewer overlooked defects in articles, sweetened the evaluation of colleagues' articles, or failed to find fabricated research data, the peer-review itself will be meaningless. It is also important for editorial chiefs and editorial boards of specialized academic journals to highly appreciate researchers who have given great peer-review reports while constantly paying attention to conduct proper peer reviews.

While raising questions about the evaluation criteria of such America-centric economics circles and the actual situation of achievement reviews, Tirole has continued his research work based in France, gaining more outstanding results than those of economists in America. It should be taken seriously that he said that external evaluations and peer reviews will continue to be the two pillars of academic research assessments.

Chapter 5 Economics on the Move describes the recent transformation of economics, linking it with a recent study by Tirole himself. Economics, which had fallen under shadow of social science and the humanities science until the 19th century, secured its independence in the 20th century and introduced the natural science method proactively, while building the economic theory on a hypothesis of a rational

economic person (Methodological Individualism). Meanwhile, Economics parted from its neighborhood fields such as sociology, law, philosophy, history, and politics, developing its unique research methods and fields. This simplified human figure has been the subject of criticism from the field of other humanities and social science, but it contributed greatly to build the micro/macro mathematical economic systems.

But in recent years, as the data accumulation related to human behavior in a broad sense advances through research on brain science, psychology, neuroscience, human genome, and so on, it has become evident that the human behavior is not necessary in line with the rationality which had been assumed in the economic theory. Furthermore, experiences of many economic crises have made people strongly conscious of the limits of the economic theory.

Therefore, over the past two decades, economics has come to close to fields such as psychology, sociology, law, for the purpose of returning to its original intention and approaching to the deeper of human behavior. Tirole says: "Economists have much to learn from other disciplines, and in turn their work can open new lines of research into individual behavior and social phenomena." In addition, Tirole made a declaration which should be referred to as the second manifest. In other words, "We are witnessing a gradual reunification of the social sciences. This unification will be slow, but it is inevitable—in fact ······anthropologists, economists, historians, legal scholars, philosophers, political scientists, phycologists, and sociologists are interested in the same individuals, the same groups, and the same societies. The convergence that existed until the end of the nineteenth century must be reestablished. This will require these scientific communities to be open to the techniques and ideas of the other disciplines."

In Chapter 4, there is a quotation from philosophy, which is rare for Tirole. It is a fragment of poetry by ancient Greek poet Archilochus--the fox knows a lot of things, but hedgehog knows only one thing that is huge--cited at the beginning of an essay written by Isaiah Berlin titled *The hedgehog and the fox*. Berlin interpreted this dichotomy as follows: The first type is the people of the hedgehog tribe who relate all things to a unified basic vision system. They think that the world can be understood by doing it. On the other hand, the second type think that the world is the place where many objects, which are often irrelevant and inconsistent with

each, coexist. Berlin applied literary scholars to this dichotomy and said that a representative of the first type is Dante and the second type is Shakespeare. In addition, Berlin classified literary scholars and philosophers and claimed that Plato, Lucretius, Pascal, Hegel, Dostoevskii, Nietzsche, Ibsen, and Proust should be the hedgehog tribe. Then, he insisted that Herodotus, Aristotle, Montaigne, Erasmus, Molière, Goethe, Pushkin, Balzac, and Joyce should be the fox family.

Berlin asked himself then if Tolstoy could belong to one of these two categories. Berlin says:

"Does he (Tolstoy) belong to the first category or the second category, whether he is a monaural person or a pluralist, whether his vision is a single or a complex, he is made of only one substance, or composite of various elements? Even if we ask those questions, there is no clear and straightforward answer. Apparently, the questions do not seem to be appropriately set up. Those questions may make the uncertainness more significant, instead of making it clear and certain." (*The hedgehog and the fox*)

Berlin assumes that Tolstoy believed himself as a hedgehog, but that he was originally a fox. My understanding is that there is a giant of knowledge that cannot be classified by this dichotomy in the world; therefore, inconsistency will occur even if it is forced to divide into two. If I describe Tirole in accordance with the hypothesis of Berlin, he believes himself as a fox that is interested in detail matters, but actually, he should be a huge hedgehog that knows a lot of big things.

This book will let us know that Jean Tirole is about to go on the voyage to accomplish social science integration, and that he encourages young researchers to join his challenges.

Have a good trip to the ocean, Jean Tirole's economics! Bon Voyage!