While it is true that the great idea is, sooner or later, discovered and transmitted where it is relevant, it is not always the case that the great idea is successfully absorbed and appreciated there. During the early 1930s, when Japanese economy was heading toward the controlled war economy, Katsuichi Yamamoto transmitted the idea of the impossibility of rational economic calculation under socialism with his 1932 book *Keizai Keisan*. The reception of the idea had been gradual during the 1930s. After the outbreak of war against China in 1937, Japanese scholars began to absorb the ideas discussed in the economic calculation debate. They did so, however, to create distinctly Japanese style of controlled economy based on Lange’s market socialist model. Equilibrium theory of economic planning was also extensively studied in the 1940s. After the hostilities of the War came to end in 1945, the problem of rational economic calculation under socialism had been was almost forgotten in Japan. History of international transmission of the great idea on economic calculation under socialism to Japan suggests further research problems.
1. Introduction

Ideas are, sooner or later, discovered and/or transmitted where they are relevant. Great ideas clash each other and are debated. One of the great ideas in the history of economic thought is that of the impossibility of rational economic calculation in the socialist common wealth. After discovered and advanced by Ludwig von Mises and Max Weber, the idea kindled so called “the economic calculation debate” in the German-speaking sphere. After the German debate, the idea was transmitted to the Anglo-American sphere, and sparked the intense dispute on the possibility of rational economic calculation under socialism, that generated another influential idea of market socialism. These great ideas were also transmitted to the place where they were pertinent. Japan was one of such places.

On September 20th, 1932 the Chikura Syobo (Chikura publishing company) in Tokyo printed a book titled Keizai Keisan:Keikaku-Keizai no Konpon Mondai [Economic Calculation: The Fundamental Problem of Planned Economy]. The author tried to give Japanese academia and general public full recognition to the relevance of the idea of the impossibility of rational economic calculation in the planned and fully controlled economy, toward which Japan was heading at that time.

This article will introduce the transmission of this great idea of the problem of rational economic calculation under socialism to Japan. Specifically, the book that supposed to be the transmitter, and its author Katsuichi Yamamoto will be introduced and his works be discussed. Japanese way of reception of that idea in 1930s and 1940s is also explicated.

This paper has six sections. In the next section, a sketch of the historical background for the transmission of the ideas of the problem of rational economic calculation to Japan will be given, and then, in the third section, Yamamoto’s life and works including those after Keizai Keisan will be introduced. The main points of Yamamoto’s Keizai Keisan (Economic Calculation) will be discussed in the fourth section. The Japanese way of reception of the calculation problem will be explicated in section five. Then, in sixth section, concluding remarks will be presented.
2. Historical background of the transmission of the idea

“The war is a father of creation, and a mother of culture.” Wartime controlled economy was thought to be necessary for “sound growth of Imperial Japan.” These thoughts characterized the Showa period of the 1930s and the 1940s of Japan, during which the idea of the possibility of rational economic calculation under socialistic planned economy was transmitted to Japan and accepted in a distinct way.

The Showa Era – the reign of Emperor Hirohito – began in 1926 after the extraordinary demand that the First World War generated gradually vanished and the Great Kanto Earthquake struck Japan in 1923. The Japanese economy of the early Showa period faced chronic crises. The Japanese economy had been severely damaged by the Showa Financial crisis of 1927 and the Showa Depression of 1930-31 that was intensified with the return to the Gold standard at the old parity in January 1930. When the global depression following “Black Thursday” on Wall Street October 29th, 1929 reached Japan, the real economic growth rate stayed just 1.1% in 1930, and 0.4% in 1931. The severe deflation caused by the lifting of the gold embargo plummeted nominal growth rate to -9.7% in 1930 and -9.5% in 1931 respectively.

The chronic economic crisis urged industries to enact ‘Strategic Industries Control Act’ for the rationalization of their businesses through cartelization in 1931. This law marked the starting point of the state control of the economy in Japan. This movement of nationalization of industries was strengthened by then dominant thought in Japan that the state control of economy was absolutely necessary as well as inevitable for the operation of controlled war economy. In fact, after the outbreak of war between Japan and China in 1937, Japan went into morass of war and the economy was transformed into full-scale war economy. During this period, decisive laws for the total control of economy including ‘Provisional Fund Control Law’ and ‘Act on Temporary Measures for Imports and Exports’ were enacted. The progressive movement of the state control of the economic activity reached its perfection with ‘National General Mobilization Act’ in 1938, that bestowed the state the full authority to control and manage all human and material resources for war objectives. The outbreak of the Pacific War in December 1941 induced the Japanese government to extended its control further to the every aspect of economy and social lives.

1 The rates of real economic growth were -2.7% in 1922, -4.6% in 1923 and -2.9% in 1925.
What also characterized Japan of this period was the pervasion of Marxism. As the 3.15 incident of 1928 and the 4.15 incident of 1929 indicated, during the 1920s, Marxism and Marxian thought permeated and peaked in Japanese society. It is true that ‘Public Peace Preservation Act’ enacted in 1925 restricted harshly freedom of general public, and prohibited any movements and associations, especially those by Marxists, that tried to jeopardize the emperor system of Japan. Marxian activists, however, continued to reach to Japanese public through the idea of inevitability of economic planning and the state controlled economy. When the war against China was broken out in 1937, and the state control of the economy was introduced to handle the supply shortage, Marxian activists tried to use these ideal opportunities to transform Japanese society into the socialist one.

These historical and ideological circumstances favorable for the Marxian central planning of the economy induced transmission and introduction of the great idea of the problem of economic calculation to Japan.

3. Katsuichi Yamamoto: Life and Works

Katsuichi Yamamoto was born in Yomura village (now Honguu town of Tanabe city) in Wakayama Prefecture, Japan, on March 20th, 1896. He was dead in Kawaguchi city in Saitama prefecture on August 1st, 1986, at his age of ninety-one. During his lifetime, he published more than thirty books and more than hundreds of papers, essays, and notes. All of these works were done for the realization of his ideal of a free society.3

When Yamamoto was fourteen year-old, in 1910, the case of high treason happened. It was the incident in which Japanese government vigorously oppressed and suppressed socialists and anarchists represented by Shusui Kotoku.4 They were arrested for projecting assassination of the Emperor Meiji, and of them twelve were put to death. It was for the first time that Yamamoto had

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2 Both the 3.11 incident and the 4.16 incident were the incidents in which many socialists and communists were arrested by the special political polices.
3 Yamamoto’s ideal of a free society is not the same as one classical liberalist or libertarians advocate. He believed that a free market economy is best consistent with the Emperor's sovereignty, which is called koutai in Japan. Along with classical liberalism, Emperor worship dominated his thinking and activity.
4 Shusui Kotoku (1871-1911) was a Japanese socialist and anarchist. He introduced the works of contemporary European and Russian anarchists, such as Peter Kropotkin, to Japanese intellectuals.
heard names of Peter Kropotokin and Karl Marx, and had sensed ‘the Social Revolution.’ The incident upset Yamamoto because, among those arrested, two was from his village.

During his early years, what was decisive to Yamamoto’s thought was to have read *Bimbo Monogatari (A Tale of Poverty)* by Hajime Kawakami, which was published serially in *Osaka Asahi Shimbun (Osaka Asahi Newspaper)* from September 1916 to December of the same year. In that book, Kawakami enlightened Japanese about the reason why so many people were in poor circumstances and how to cure them, then he insisted strongly that stopping sybaritic spending of the rich must be the first thing to do. So many Japanese were persuaded, influenced and affected by Kawakami’s tale a la Marx. Yamamoto was one of them. When he decided to enter Kyoto Imperial University in 1920, the sole reason was his desire to study under Kawakami. This meant that Yamamoto started his career first as an ardent Marxist, became a beloved student of Kawakami, and engaged enthusiastically in enlightening the bourgeoisie and working class with Marxism and socialism.6

Immediately after his graduation from the University in 1923, Yamamoto became a lecturer of Wakayama College of Commerce (now Wakayama University) with Kawakami’s help. From 1925 to 1927, he had chance to visit France to study economics of Physiocracy, especially theories of value of Le Trosne and Turgot. This was another decisive experience to him. After having returned to Japan, Yamamoto started to criticize Marxian economics scathingly and unsparingly from a point of subjective theories of value of Turgot.7 In 1930, Yamamoto published his maiden book *Marukushizumu wo Chuushin-to-Shite (On Marxism: A Critical Study)*, in which he exposed

5 Hajime Kawakami (1879-1946) was an economics professor of Kyoto Imperial University, and one of the leading Marxian economists in Japan. On his life and works, see Bernstein (1976).
6 As he later recalled, however, Yamamoto had felt some insoluble contradiction in Marx’s theory of capitalist economy from the very beginning of his study.
8 *On Marxism: A critical study*: Kyoto: Shiso-Kenkyuukai, 1930. According to Yugo Kanou, one of Yamamoto’s students, this book was sold more than twenty thousands. See Y. Kanou “Dr. Katsuichi Yamamoto as classical liberalist” manuscript, 1996, p. 8.
theoretical weakness of and fundamentally logical inconsistency in Marx’s theories of historical materialism, surplus value, and industrial reserve army. Yamamoto also denied a possibility of communist society. However the reason for his denial was not the impossibility of rational economic calculation but that we were not so clever as to manage such a “Great Society” under unprecedented condition of collective ownership of production means.\(^9\) The publication of *On Marxism* evinced Yamamoto’s complete rejection of Marxism, socialist ideals, and Kawakami’s teachings. He engaged in rectifying errors of students who were heavily influenced by Marxism at *Kokumin Seishin Bunka Kenkyusyo* (The Government Institute for Japanese Spirit and Culture)\(^10\) from 1932 to 1943.

From September 1931 to April 1932 Yamamoto visited the Soviet Union and Germany to observe the real condition of Soviet economy and how the problem of economic calculation had been tried to solve.\(^11\) Based on his observations discussions with Russian and German economists, and his own studies on the problem of economic calculation, Yamamoto published *Keizai Keisan (Economic Calculation: Fundamental Problem of Planned Economies)* in 1932. He insisted that the possibility of rational economic calculation is the fundamental problem of planned economy (and socialism), and alarmingly criticized of economic control by Japanese government during wartime.\(^12\) In 1939, Yamamoto published *Keikaku Keizai no Konpon Mondai (The Fundamental Problem of Planned Economy)*\(^13\) that is enlarged and supplemented edition of *Keizai Keisan*. With

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\(^10\) *Kokumin Seishin Bunka Kenkyusyo* (The Government Institute for Japanese Spirit and Culture) was established in 1932 for the construction of new counter system of thought against Marxism. Yamamoto served there until 1943. As for *Kokumin Seishin Bunka Kenkyusyo*, see Maeda (1982).

\(^11\) Yamamoto met Konstantin V. Ostrovityanov and Zenis at the Communist Academy in Soviet, and Boris Brutzkus and Georg Halm in Germany to discuss the problem of economic calculation in the socialist society.


\(^13\) Yamamoto (1939).
this book, he got his Doctorate in Economics from the Tokyo College of Commerce (now Hitotsubashi University, Tokyo) in 1940.

Even after the publications of *Keizai Keisan* and *Keikaku Keizai no Konpon Mondai*, Yamamoto kept studying on the problem of economic calculation and other related problems that can be classified into four mutually-related subjects: sophistication and extension of the study of the problem of economic calculation; criticism of the state control of the economy; protection of private property system as the necessary condition for the order and development of the state; and further examination of Russian experience to verify these theoretical arguments by observing the Russian realities after the 1917 revolution.

After the World War II, Yamamoto endeavored to establish Liberal Party of Japan, and made a draft for the procedure for economic recovery. He was elected to the Diet five times. He taught as a professor at *Daito Bunka* University and *Chuo Gakuin* University. During the postwar period,

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14 In February 1934, Yamamoto published a small book *Shiyuu-Zaisan Seido no Igi* [*The Significance of Private Property System*]. In order to demonstrate the significance of private property system for the social order, he examines three questions: the origin of institution of private property; the reason for the protection of private property system; and the consequences of the negation of private property. With regard to the origin of private property system in Japan, Yamamoto insists that Japan had that system as early as in Heian Period that began in the year of 794. Furthermore, the evidences of the institution of private property can be found even in *Kojiki* (*A Record of Ancient Japan’s Matters*) of the 710 or *Nihon Shoki* (*Japanese History*) that was completed in the year of 720. Based on these findings, Yamamoto maintains that there emerged the system of private property in the very beginning of Japanese history. Concerning with the consequences of the destruction of the institution of private property and the transformation to the communist society, Yamamoto argues three things that inevitably happen. First, productivity must get reduced because the workers must become motivationally deficient, and imbalances between demand and supply for almost every goods. Secondly, the society must get groped in the dark since there is no means to measure, and compare, cost and effect by the common denominator, that is, there is no possibility of economic calculation. Thirdly, forced labor and deprivation of freedom to consume must be unavoidable.

15 Based on his conviction that common error among advocates of planned economies is deficiency of examination of Russian experiences, and that Russian realities are misunderstood, Yamamoto scrutinized closely the actual conditions of Russian economy from war communism period through new economic policy to the execution of the five-year planning, and published three articles on that subject in 1934 and 1935. Yamamoto (1934c) demonstrated that Russian farmer’s lives under Communist reignite have followed disastrous and tragic fate, and have always been on the verge of starvation. Yamamoto (1935b), that is an extended version of Yamamoto (1934b), traces a Russian history from the 1917 Revolution to the ending of the first five-year planning period in 1933. Then, after having observed ceaseless economic crises in every sector of Russian economy, Yamamoto argues that ‘the most decisive is the deprivation of economic calculation (disregard of profit and loss consideration) within every management.’
Yamamoto published many papers and articles that argue for the importance of free market economy, and that criticize Welfare State and Keynesianism.

4. Yamamoto’s study of the calculation problem: *Keizai Keisan (1932)*

It is Alfred Amonn\(^\text{16}\) that first introduced the problem of rational economic calculation debated in German speaking world to Japan. Amonn who was then a professor of economics at Imperial University of Tokyo contributed an essay “Recent trends in economics in the contemporary West” to *Kaizo* journal in June 1927. In this essay, Amonn brought forward the debate among economists over the problem of socialist order, and the idea of the impossibility of rational calculation under socialism. Because Ammon’s presentation was brief and not detailed, however, it is difficult to believe that Japanese public could understand the problem of the possibility of rational economic calculation and its significance and relevance to Japanese economy. It might be the case that the calculation argument against socialism by Mises and Max Weber was still relatively little known in Japan even in the late 1920s.

Yamamoto reminisces\(^\text{17}\) that, when he wrote an article “Isn’t Socialism feasible?” in 1928, he first realized the problem of economic calculation as fundamental to the socialist planned society. He also recollected that, within *On Marxism*, he had only alluded to that problem because he had still no confidence to state it publicly. After one year’s reflection, in 1931 when Yamamoto was serving to rectify the university students who were deeply influenced by Marxism, he wrote serial articles “An Examination of Socialist Economic Order (I) (II).”\(^\text{18}\) In the first of these two papers, he introduced and discussed the problem of “economical calculation.”\(^\text{19}\) Unfortunately, these articles were not for public. They appeared in the secret volume for the teachers like him who were remediing the affected Marxian students. Even though, in the same year, Japanese translation of Gerog Halms’s *Ist der Sozialismus wirtschaftlich möglich? [Is socialism economically possible?]*

\(^{16}\) Alfred Amonn (1883-1962) was known in Japan to be one of students of Böhm-Bawerk at University of Vienna, and considered as one of three representatives of Austria school of economics. The other two were Ludwig von Mises and Joseph A. Schumpeter.

\(^{17}\) Yamamoto (1935a), p. 35.

\(^{18}\) Yamamoto (1931a), (1931b)

\(^{19}\) “Economical calculation” is Yamamoto’s own translation of the German word “Wirtschaftsrechnung”.

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was printed, the transmission of the idea of the problem of the possibility of rational economic calculation under centrally planned society to Japan was still incomplete. Finally, in 1932, Yamamoto’s *Keizai Keisan: Keikaku Keizai no Kihon Mondai* [Economic Calculation: The Fundamental Problems of Planned Economy] came to the public to introduce the decisive ideas of the problem of the possibility of economic calculation for the orderly society.

As shown in Table1, *Keizai Keisan* is consisted of his ‘Introduction’ and seven chapters. In the first chapter, Yamamoto clarifies the role the economic calculation plays in the capitalistic exchange economy, and insists that the essential problem of a socialist society is that of the possibility of economic calculation. Then, in chapter two, he overviews the history of how the problem of economic calculation was recognized by economists. He also introduces main literatures on the problem of economic calculation under socialism in this chapter. From chapter three to chapter six, Yamamoto examines arguments concerning the problem of economic calculation in the socialist society by nine economists: Otto Neurath; Alexander V. Chayanov; Eugen S. Varga; Stanislav G. Strumin; Otto Leichter; Karl Kautsky; Eduard Heimann; Ludwig von Mises; Georg Halm. These arguments are classified into four headings; calculation in kind; calculation by labor value; calculation by monetary unit; and negation of the possibility of economic calculation under socialism. In the last chapter, the seventh chapter, Yamamoto presents his own analysis of institutional instability of market socialism for equilibration of demand and supply through price change in response to surplus and shortages. Then, in the second section, from the perspective of the economic calculation, the reality of Soviet economy from the era of war communism through New Economic Policy (NEP) to the period of five-years planning is examined.

4.1 The fundamental facts of society and the necessity of economic calculation

In the first chapter of *Keizai Keisan*, Yamamoto demonstrates the decisiveness of the problem of economic calculation for any types of societies by clarifying two simple facts of the real world and subjective nature of human desire. With regard to the former, first, no matter how the means (the goods) to satisfy our desire increase, they must be too scarce to fulfill all desires. Then, which ones of many desires will be satisfied must be decided, and costs and effects for rational decision must be able to be compared. Secondly, the production process from the start of production toward the final

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20 In the same year, Böhm-Bawerk’s *Zum Abschluss des Marxschen Systems* [Karl Marx and the Close of His System] was also translated into Japanese and published.
consumer goods is time-consuming and complicated. This fact, with the subjective nature of value judgment that only the very man who knows his own desires can compare utilities of goods, logically entail that inter-personal comparison of utilities over various goods is impossible without some method of careful deliberation, that is, economic calculation.\textsuperscript{21}

Based on these arguments, then, the notion of ‘economic calculation’ is defined as “calculation of economic efficiency of our activities, or examination of whether the means to satisfy our desires are best used or not.”\textsuperscript{22}

4.2 German and Russian language debates

First of all, it should be acknowledged that “German Language Debates on Socialism” is very much fertile. Especially, Eduard Heimann’s idea clearly anticipates the idea of market socialism by Oskar Lange, and Yamamoto’s critical analysis that flexible change of prices are inconsistent with the socialist order teaches us the reason why the market socialism was never tried in the socialist society.

Furthermore, through reading \textit{Keizai Keisan}, it can be recognized that there was “Russian Language Debate on the Economic Calculation.” The possibility of rational economic calculation is not only theoretical issue, but also practical challenge. Thus, in order to understand history of socialism in the 20\textsuperscript{th} century, especially to appreciate meanings of the Soviet experiment, the Russian Language Debate and its influence on the economic history of former Soviet Union must be studied.

\texttt{<<To be finished>>}

4.3 A theoretical analysis of instability of market socialism

In the first section of chapter seven of \textit{Keizai Keisan}, Yamamoto analyses the possibility of rational production in the market socialist economy in which, while the freedom of choice of consumer

\begin{flushleft}
\textsuperscript{21} Yamamoto (1932), p. 6.
\textsuperscript{22} Yamamoto (1932), p. 6.
\end{flushleft}
goods and the freedom of occupation are maintained, the state owns the means of production. In order for this market socialism to be feasible, all of the following four conditions must be satisfied.

(1) Rational comparison of strength of all consumers’ needs for all consumer goods.

(2) Rational comparison of the costs of production of goods.

(3) The collection of the necessary number and kinds of labor for each specific work.

(4) The equilibration or balancing of the demand and the supply of consumer goods.

Whether these four conditions would be met under the supposed socialism is examined. Yamamoto argues that both the first and the second conditions can never be met in the socialist state. Concerning with the first, subjective nature of human desire makes it impossible to compare directly the degree of the strength of the demands of different people. The socialist state must maintain the freedom of choice of consumption for the rational production. The reason why the second condition cannot be satisfied is that there are no objective market prices, only with which objective and rational calculation and comparison of costs are feasible.

With regard to the third and fourth conditions, he plainly denies the possibility that the central planning office can find a priori the equilibrium prices (and wages) at which the demand and the supply of consumer goods (and, of labor of specific works) are balanced. The excess demand or the excess supply of each consumer good (and labor of specific work) is inevitable and unavoidable. The problem is how the central planned under market socialism responds to these disequilibrium situations. This problem should be answered by the examination of whether the central planner as the only supplier could rise or reduce prices when the demand exceeds the supply or vice versa.

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23 As Yamamoto (1932) notes, “the socialist planned economy mentioned openly or implicitly by Japanese intellectuals is different. It is supposed that, in that system, while workers have freedom to chose occupation, consumers has freedom to chose consumption goods, and, under the state ownership of production means, the production that would be expected to bring about the maximum social benefit with the minimum social sacrifice must be accomplished on the basis of the central authority’s overall plan.”


26 Because it is only the emergence of this disequilibrium between demand and supply that can teach whether the production in the next period should be increased or decreased, Yamamoto maintains that the pure collectivist society must presume this information as one of its institutional mechanisms. Yamamoto (1932), p. 234.
Although market socialists would answer affirmatively to this problem, Yamamoto demonstrates that the socialist state must avoid flexible change of prices in order to maintain the order of the society. The flexible price as the method of achieving equilibrium and the freedom of consumption and occupation are incompatible each other. Market socialism is essentially and institutionally unstable.

Under market socialism, Yamamoto argues, the shortage or the surplus of the product and the buying and the selling of the goods would never express the strength of demand, and the production would lose its guide to be increased or decreased. If the price is raised in response to shortage of the product or if the price is cut in response to the surplus of the product, the consumers would immediately rush to the product whose price was reduced, that is, to the product oversupplied, then, there would emerge shortage of that product. At the same time, they would avoid buying the product whose price was raised, that is, the product in short supply, and the product would remain unsold. The reason for these that, in the socialist planned economy considered here, it would be institutionally assumed beforehand to restrict the production of goods in the next production period, that is oversupplied, and to expand the production of the product supply of which is less than demand. The flexible price change would teach the consumers exactly whether the state would increase or decrease the production.

The institution of flexible price of the market socialism makes the consumers very speculative, and the amount of the demand would not reflect their real living needs. After all, the central authority of the planed society would not be able to know the movement of the consumer’s demand at all, and lose the only indicator for the decision about the expansion or the contraction of the production in the next period. Execution of the production that reflects the people’s needs, that is, the production that generate the maximum effect, is unquestionably impossible. The flexible change of the prices in response to occasional shortage or surplus of the products would “transform the ordered society into the chaotic one.”

Market socialism is essentially and institutionally unstable.

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Yamamoto (1932), p. 240. He argues that market socialism is institutionary contradict with the socialist planning. Based on these reasoning, he understand that Soviet-Russia under the five-year planning never cut down the once determined price no matter how long the product has been left unsold, and never rise the once determined price no matter how quickly the product has been sold out.
Based on these theoretical reasoning, Yamamoto predicts the possible reality of socialist planned economy: “It is the economy in which the central authority of the state pushes ahead thoughtlessly the production plan that it considers for a time being as necessary or appropriate without any confidence in the magnitude of social effect as well as that of social sacrifice. The freedom of occupation as well as freedom of choosing consumption goods must be renounced. Namely, that economy is a reign of terror.”

4.4 Critical Assessment of the Reality of Soviet Economy

The result of socialist experiment conducted in the Soviet Russia after the 1917 revolution is also introduced in the second section of the seventh chapter of Keizai Keisan. Yamamoto applies his own theoretical analysis to the three successive phases of the Russian economy; the era of War Communism; that of New Economic Policy (NEP); and that of the first five-year planning.

During the period of War Communism from 1917 to March of 1921, all efforts were devoted to eradicate all markets, market relations, and commodity production. Consequently, production of goods decreased drastically. The Russian economy ruined and was in the state of groping in the dark. The workers were forced to engage in forced labor. Rationing of goods was executed. In March of 1921, Soviet Russia adopted New Economic Policy (NEP), under which the economy was transformed into the mixture of planning, monetary, communistic and capitalistic factors. With gradual endorsement of free trades, markets began resorted, the production increased, and the economy found itself orderly functioning.

The Soviet economy was transformed into the full-fledged socialistic planned economy during the first five-year planning. In this period, markets began to collapse again, and the Russian economy was got into utter turmoil. Even though productions of the planned products

29 Yamamoto argues that these phenomena and the suppression of freedom of choices of goods and occupation are the inevitable result of eradication of markets. See Yamamoto (1932), p. 259.
30 Yamamoto believes that the examination of the period of the five-year planning is the most important to verify his theoretical analysis. Yamamoto (1932), pp. 267-8.
increased, their qualities worsened and the number of the kinds of products considerably decreased. The equilibrium of the economy was destroyed. The forced labor and rationing had resurfaced.

Based on these historical realities of the Soviet economy, Yamamoto concludes that Russian experience verified his own theoretical analysis that the socialist state was impossible to conduct rational and orderly production because it lacked freely market transaction. 31

4.5 A comparison with other books

When Henry D. Dickinson reviewed Trygve J. B. Hoff’s Økonomisk Kalkulasjon i Socialistiske Samfund, original Norwegian edition of Economic Calculation in the Socialist Society in 1940, he remarked as follows:

The problem of economic calculation in a social system where the ownership of all means of production is, in the ultimate analysis, vested in a single organ of social administration has been a live issue among economists for some years. It seems now to have reached a stage in which none of the disputants has very much new to say. Consequently, it is now ripe for a comprehensive survey and a judicial summing-up. This has been very successfully attempted by a Norwegian scholar in the work before us. The author has produced a critical review, at a very high level of theoretical competence of practically everything that has been written on the subject in German and English. 32

If Dickinson were able to access to and read Yamamoto’s Keizai Keisan, would he write the same review as that of Hoff’s book? If he would, then, the last sentence would be changed to “The author has produced a critical review, at a very high level of theoretical competence of practically everything that has been written on the subject in Russian and German.” Keizai Keisan is one of the earliest studies in the history of economic thought, that reviewed comprehensively and critically the arguments concerning the problem of the possibility of rational economic calculation in socialist society. This can be evidenced through the comparison of Keizai Keisan with other studies done around the same year of its publication.

32 Dickinson (1940), pp. 270-274.
5. Japanese way of reception of the economic calculation problem

How had the problem of rational economic calculation in the centrally planned economy been received in Japan? Three features can be detected with regard to this question. Firstly, it seems that the arguments concerning the calculation problem and its decisiveness had been acknowledged very slowly and gradually in the 1930s, but, during the 1940s, a number of studies appeared concerning the problem of rational economic planning. Secondly, Japanese scholars believed that the fundamental problem of the central planning and controlled economy is how to achieve the balance between the demand and supply, i.e., equilibrium, not the possibility of rational economic calculation itself. They insisted to create Japanese style of central planning. Thirdly, concerning with theoretical analysis of the planned economy, they embraced static general equilibrium analysis, did not understand the essentially dynamic nature of the calculation problem.

5.1 Gradual reception of the calculation problem in the 1930s

When Keizai Keisan was published, there was no response in Japanese academic community. It could have only a few reviews. The reason for this silence, Yamamoto conjectures, is that Japanese academia was totally alien to the problem of economic calculation itself, or that he was unknown person in Japan. Yamamoto continued his study on the problem both theoretically and empirically. Yamamoto (1933) enlisted eleven books, eleven pamphlets, and fifty-nine articles that explore the principles and practices of the state planned economy, and the result of five-year planning of the Soviet Union. On these works, he remarks that they reveal “a lack of understanding about the problem of economic calculation as the essential defect of the socialist economy.”

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33 However all of reviewers highly appreciate Yamamoto’s book. Koizumi (1932) writes, at the end of his review, “anyway, I hope that there will emerge active discussions on the problem of economic calculation.”

34 Yamamoto (1935a), p. 35. Juro Tezuka, who was one of the esteemed economists at that time in Japan, and translated Leon Walras’s Éléments d’économie politique pure into Japanese, points out three reasons for the negligence of Keizai Keisan. First, the term ‘economic calculation’ itself was still not known very much. Second, it was not appropriate to discuss the problem of economic calculation in the book form. And, thirdly, Keizai Keisan was a defective book that misses several pages. Tezuka (1939b), p. 188.
Following this awareness, Yamamoto (1935a) argues again the impossibility of economic calculation in the state planned economy. This argument was extended to guild socialism and syndicalism in Yamamoto (1937a). It also demonstrates that any type of decentralized socialism would confront the problem of rational economic calculation as the centrally planned socialist society.

Regrettably, Yamamoto’s fight during the early 1930s seemed a lonely battle. The reception and appreciation of the idea of impossibility of rational economic calculation in the socialist planned economy was very slow and gradual in the 1930s. By 1938 after the publication of Keizai Keisan, there appeared only small numbers of articles and books that concerned with the problem of the centrally planned economy: Mukai (1932) allotted on section to present Mises’s criticism of government interventionism into the economy, Koizumi (1933) introduced Boris Bruztkus’s Der Fünfjaresplan und seine Erfüllung [The Five-Year Plan and Its Fulfillment], and Kiga (1936) discussed the implication of a theory of value to the planned economy; Mukai (1933), Sakisaka (1934), and Inomata (1934) are books on the controlled economy.

After the outbreak of war between Japan and China in 1937, Japan government progressed the state control of the economy, and increasingly destroyed the market and the market mechanism. Confronted these hard situations, Yamamoto did his best effort to criticize of the government’s policy and to preserve the market and economic freedom.35

The reception of the ideas of the problem of possibility of rational economic calculation accelerated after 1935 when Collectivist Economic Planning edited by Hayek was published, and was forced further after Oskar Lange’s “On the economic theory of socialism.” In 1938, three

35 Yamamoto (1937b) warns that any control of economic activities by the state by necessity would lead to further control of the economy, and would reach the complete control of the society. Yamamoto (1937c) and Yamamoto (1937d) evidenced that how strongly Yamamoto had gotten anxious about destruction of economy through the state control of the economy, and that he exerted every effort to prevent the markets from collapsing. In fact, Yamamoto (1938b) concludes his paper with the following warnings:

‘Destroying market mechanism means destruction of the foundation of the present national economic order. It breaks down not only the present order, but also every economic order. Our national policy supposes that the current affairs can be overcome without destroying economic order. It should never be forgotten that overcoming of the current situation is impossible if the foundation of economic order is destroyed. ... The disorganization of the markets would makes the economy get out of hand. Rid wartime economy of socialist ideology and ideology of planned economy!’ (p. 47)
article of Yuzo Yamada of Tokyo College of Commerce (now Hitotsubashi University) appeared: Yamada (1938a), (1938b), and (1938c). In the first article, Yamada made a following remark:

“A price theory for a planned economy was recognized through the debate about Wirtschaftsrechning (economic calculation). …The problem is ‘Is economic calculation possible under socialism?’ …With regard to the debate, for example, refer the first paper “The nature and the history of the problem” of Collectivist Economic Planning edited by Hayek, London 1934. Katsuichi Yamamoto’s Keizai Keisan (1932) also gives detailed analysis of the problem. Through this debate, the economic problem of planned economy was correctly acknowledged.”

Yamada (1938b) surveys German, Anglo-American, and Japanese literatures on the analysis of economic planning, and notes that the distinct problem of planned economy is that of Wirtschaftsrechning advanced by Mises and others. Those literatures that discuss theories of price for the economic planning are examined thoroughly and listed in Yamada (1938c).

In the following year, Yamamoto published Keikaku Keizai no Konpon Mondai [The Fundamental Problems of a Planned Economy: Studies on the Possibility of Economic Calculation]. It is weighty tome that has five hundreds forty-two pages. It caused repercussions within the academic circles in Japan. In the same year, Takuma Yasui, who would become internationally known for his analysis of stability of general equilibrium with Lyapunov function, introduced Lange’s “On the economic theory of socialism” in great detail in the economic journal of Imperial University of Tokyo. It can be said that by 1940, the idea of the problem of possibility of rational economic calculation under socialism had been completely transmitted to Japan and fully recognized. It was the different thing, however, to turn around the then dominant trend toward the planning of all economic activities.

5.2 Japanese style of central planning

36 Yamada (1938a), p. 40.
37 As matter of fact, several very favorable reviews appeared. For example, Seiichi Tohata appreciates it very much by saying that ‘Yamamoto’s book should be regarded as a book of economic principle in the form of critical examination of a socialist economy.’ The other reviewer, Juro Tezuka, even more praises it to the skies with the words that ‘even studies on economic calculation by any eminent scholars in the world cannot be rated on the par with Yamamoto’s book’, and that ‘it is at the first rank in terms of its details among books which treats with the same problem.’
38 Yasui (1939). Lange’s article, along with Fred Taylor’s “The Guidance of Production in a Socialist State” and Robert Mosse’s “The Theory of Planned Economy,” was translated into Japanese and published in 1942.
In the same year of 1939 when Yamamoto’s Keikaku Keizai no Konpon Mondai was printed, a very influential and bestselling book was also published. It is Nihon Keizai no Sai-Hensei [Reorganization of Japanese Economy] by Ryu Shintaro. Based on the belief that the transformation from free market economy to the controlled economy is inevitable, it insists the creation of a new economy by means of the control of profit to decrease the rate of profit through coercion to cut the prices of the goods. This book provided the theoretical foundation and systematic perspective for Japanese style of controlled economy.

The ideas of inevitable transition of capitalist free economy to controlled economy and the necessity of creating distinctive Japanese style of controlled economy were shared among economists. Yamada (1942) argues that “It is now common sense that free market economy led to monopoly and internal contradictions, and that the state control of economy is inevitable.” As Sugimoto (1943) asserts, “that controlled economy to be realized must be of Japanese style in which each people would develop creative ability to the full under the state administration.” In his “Introduction” to the book that collected Japanese translation of Oskar Lange’s “On the economic theory of socialism,” Fred Taylor’s “The guidance of production in a socialist state,” Robert Mosse’s “The Theory of Planned Economy,” and Hayek’s “Socialist Calculation: The Competitive Solution,” Tsuchiya (1942) proposes Japanese way of planning the economy by means of Lange-Taylor procedure of price mechanism to reorganize war economy into a new controlled system.

In this way, the economic calculation debate and the idea of the possibility of rational economic calculation under socialism were accepted and recognized with a high hope to construct distinctively Japanese controlled economy and its theoretical foundation. As Yamada (1942) argues evidently, the economic calculation debate led to the realization of seeking the third form of economy (Japanese style of controlled economy) by means of setting official prices that achieve equilibrium, and the state administration of privately owned firms. Lange’s market socialist model should be exploited and further developed for reorganization of war economy, sophistication of controlled economy, and realization of the third form of economy.

Yamada criticizes of Lange’s model for its static assumption that both the demand functions and the supply function are supposed to remain unchanged. In order for the state to achieve

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39 p. 196.
40 p. 27.
equilibrium in the real world, the model must be a dynamic one in a sense that the fluctuation of demand and supply is seriously considered. Yamada suggests the utilization of statistical observation to detect “the trends of demands and supplies,” and, then, the state would impel the trial and error process to find those official prices that achieve overall equilibrium of the economy. The use of professional knowledge of the experts and the priority of the whole state over the individuals are underlined.

On the one hand, the idea of market socialism was absorbed to realize Japanese way of controlled economy; on the other hand, the significantly dynamic essence of the problem of rational economic calculation under socialism was never appreciated. Some of those economists who concerned with theoretical foundation of the controlled economy headed toward the abstract study of equilibrium analysis of economic planning in the 1940s.

5.3 Equilibrium analysis of economic planning

As early as in 1935, Ichiro Nakayama, who was a pioneer of mathematical economics and general equilibrium analysis in Japan, argues that “the important task the economic planning presets to economics is a further advancement of economic theory along with equilibrium theory developed in the past.” During the 1940s, equilibrium analysis of planned economy was being introduced to Japan.

It has been already mentioned that the Japanese translation of Lange’s “On the economic theory of socialism,” Fred Taylor’s “The guidance of production in a socialist state,” and Robert Mosse’s “The Theory of Planned Economy” were printed in 1942 after Yasui’s detailed introduction of Lange’s model in 1939. Only Enrico Barone’s “The Ministry of Production in the Collectivist State” in Collectivist Economic Planning edited by Hayek was translated and introduced in 1942. Yamada (1942) also critically but favorably introduced “Barone=Lange’s theory of economic calculation” to develop Japanese way of economic planning. In 1944, Yukio Kitano, representative of general equilibrium analysis of the planned economy in Japan, edited Japanese translation of three articles; Barone’s “The Ministry of Production”; Herbert Zassenhaus’s “Über die okonomische Theorie der Planwirtschaft (On the economic theory of planned economy)”;

41 Nakayama (1935), p. 201.
42 It was only in 1950 that the Japanese translation of Collectivist Economic Planning was printed only.
Alexander Bilimovic’s “Eigene Bemerkungen zur Theorie der Planwirtschaft (My Opinion on the Theory of Economic Planning)”. The book to which Kitano added his own “Introduction” of sixty pages was titled Barone: Equilibrium Theory of Planned Economy.

On September 2nd, 1945, the Empire of Japan surrendered to the Allied Powers, and the hostilities of the Second World War were terminated. The war economy of Japan was brought to the end. Although massive amount energy was invested in the study of equilibrium theory of the planned economy during first half of the 1940s, it never established viable Japanese style of the controlled economy.

Even after the war ended, the studies on the economic planning had continued. With regard to the problem of possibility of rational economic calculation under socialism, however, Japanese scholars paid little attention to that problem. Rather, they had great interest in studying the economy of Soviet Union that had been “developing” during the 1950s. Japanese translation of Collectivist Economic Planning that was printed in 1950 and that of Trygve J. B. Hoff’s English edition Economic Calculation in the Socialist Society in 1959 were merely peripheral to the study of the Soviet economy. Yamamoto’s Keizai Kiesan and Keikaku Keizai no Konpon Mondai became swept into oblivion.  

### 6. Concluding remarks

While it is true that the great idea is, sooner or later, discovered and transmitted where it is relevant, it is not always the case that the great idea is successfully absorbed and appreciated there. During the early 1930s, when Japanese economy was heading toward the controlled war economy, Katsuichi Yamamoto transmitted the idea of the impossibility of rational economic calculation under socialism with his 1932 book Keizai Keisan. The reception of the idea had been gradual during the 1930s. After the outbreak of war against China 1937, Japanese scholars began to absorb the ideas discussed in the economic calculation debate. They did so, however, to create distinctly Japanese style of controlled economy based on Lange’s market socialist model. Equilibrium theory of economic planning was also extensively studied in the 1940s. After the hostilities of the War

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43 It was only half century later that Yamamoto’s works were rediscovered and reevaluated in Japan.
came to end in 1945, the problem of rational economic calculation under socialism had been was almost forgotten in Japan.

What can we learn from this history of international transmission of the great idea to Japan? The great research leads to not only the great answer to the important problem, but also another significant research problems. Three problems are suggested here. First, Japan is not only country that tried to create the controlled economy. Many countries tried to create socialist society and centrally planned economy: the former Soviet Union and eastern countries, China, Vietnam, North Korea, Cuba, and many African countries. Was the idea of the impossibility of rational economic calculation transmitted to these countries? If it was, when was it? How was it? What happened after the transmission? These questions are important to understand history of each country, and to history of ideas in general, and to history of economic thought in particular.

Secondly, how did the ideas discussed in the economic calculation debate influence the real policies in Japan and other countries? As Yamamoto recollects that “if critical considerations of the socialistic planned economy from a perspective of the possibility of economic calculation are nothing more than theoretical curiosity, and are thought to have no practical significance for the state, I have neither studied the problem of economic calculation nor pronounced the results of my research,” the process in which the great idea affects the policies of the state is also subject for the further research.

Yamamoto’s analysis of institutional instability of market socialism suggests the third problem. His argument about the difficulties the planning authorities would encounter if they raised or lowered prices present a new perspective for the studies of institutional aspect of market socialism. It also suggests the possibility of discovery of unique argument done by economists who studies non-Anglo-American and non-German-speaking countries. Each county has own history of economic thought. Research on distinctive history of economic thought on the calculation problem remains also important to understand the diversity of economic systems.

The history of international transmission of the idea on rational economic calculation in the socialist society to Japan demonstrates that the economic calculation debate is still so fertile in this 21st century.
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