

Kobe University Monograph Series in Social Science Research

Nobuo Okishio

# The Theory of Accumulation

A Marxian Approach to the Dynamics  
of Capitalist Economy



 Springer

# **Kobe University Monograph Series in Social Science Research**

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A Marxian Approach to the Dynamics  
of Capitalist Economy



 Springer

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## Preface to English Edition

Professor Nobuo Okishio (1927–2003) is known in English-speaking countries as an advocate of Marxian Fundamental Theorem and the “Okishio Theorem,” which relates to the tendency of the rate of profit to fall hypothesis. He contributed not only to Marxian economics, but also to Keynesian economics. In particular, his criticism about Keynes’ aggregate supply function and Harrod’s instability principle is important.

In Japan, there are two major associations of economic theory. One is the Japanese Economic Association (formerly called the Japan Association of Economics and Econometrics), which represents mainstream economics. The other is the Japan Society of Political Economy, which represents Marxian economics. He was a representative figure in both societies. In particular, he was elected as President of the Japan Association of Economics and Econometrics in 1979.

Unfortunately, his economic theory has not yet been systematically introduced to English-speaking countries. This book is the translation of *Chikusekiron* (蓄積論), which presents his economic theory.

In mainstream economics, it was once standard to discuss long-term economic growth and business cycles using different frameworks. Even though this has been changing recently, it continues to remain common to discuss separate frameworks. In contrast, this book discusses the mechanisms of growth and cycles of capitalist economies in a unified manner. Nearly 50 years ago, Okishio developed a highly original macro-dynamic theory based on Marxian micro-foundations and historical perspectives that also incorporated the ideas of Keynes and Harrod.

Following the outbreak of the global financial crisis of 2007–2008 and the prolonged stagnation that followed, there was strong criticism among policymakers and businesspeople that mainstream macroeconomics failed to provide convincing explanations and effective policy recommendations to prevent such occurrences in the future. This book offers an alternative perspective in response to those criticisms. These significant macroeconomic difficulties call for new wisdom beyond the limited neoclassical framework. Okishio’s incisive and wise contributions will add new tools for young researchers worldwide to challenge the current resource misallocation, the Great Recession, and the challenges of the Lost Decades.

*Theory of Accumulation* was published in 1967 in its first edition and in 1976 in its second edition. After 45 years of the publication, the importance of the book remains relevant. This is clear from the fact that a special issue on Okishio's economics was published in 2013 by the *Political Economy Quarterly* Vol. 50, which includes "Okishio's *Theory of Accumulation* revisited" (Takeshi Nakatani). It should be noted that translators added an essay on the socialist economy as Chap. 6, wherein Okishio described his view on how the socialist economies should function, compared with the existing one. This is because Okishio's description of a socialist economy in Chap. 5 may give the impression that it praises the existing socialist economy.

The translation of the main text was basically completed in four steps. The first-stage translation of the Japanese text into English was carried out by Ms. Michie Hamaya and Ms. Sachiko Kikumoto. In the second-stage translation, the first-stage draft was corrected based on knowledge of economics and Okishio's theory. Professor Okishio's former students Taiji Hagiwara, Toshiki Jinushi, and Hideo Suehiro were engaged in this process. In the third-stage translation, Prof. David Kolf and Prof. Anna Schlade reviewed the second-stage draft and made numerous suggestions. In the final stage, we sought professional editing from Ms. Nami Yamashita and Enago. In addition, Hisao Hisamoto, another former Okishio's student, translated the mathematical appendix. Hagiwara also translated the footnotes and references and was in charge of adjustments for overall consistency.

The translators would like to express their gratitude for the financial support of the Kobe University Center for Social Systems Innovation (KUSSI) and donations from alumni of Okishio's class. Many people helped us in editing the translation: Ms. Michie Hamaya, Prof. David Kolf, Ms. Sachiko Kikumoto, Prof. Anna Schlade, Ms. Nami Yamashita, and Enago.

Kobe, Japan  
Osaka, Japan  
Kobe, Japan  
Kobe, Japan  
July 2021

Taiji Hagiwara  
Toshiki Jinushi  
Hideo Suehiro  
Hisao Hisamoto  
Translators

## Preface to the Second Edition

This book aims to explain the fundamental characteristics and the movement of the capitalist society as simply as possible. I have to wait for the readers' judgments on whether I succeeded.

The first edition of this book was written based on the earnest responses of undergraduate students and serious discussions with graduate students of Kobe University. Fortunately, I also received valuable comments from many researchers and students following its publication. Among them, there were misunderstandings that could have been avoided by improving the descriptions that I provided in the book. In addition, I myself have noticed several points on fundamental features and movement of the capitalist society that became clearer to me after the publication of the first edition. Therefore, I welcomed the proposal of a second edition offered by the publisher, Chimuma Shobo. Taking this opportunity, I revised over half of the first edition.

The main points I revised in this second edition are as follows: In Chap. 2, the relationship between the capitalist system and the production force is discussed in more depth. In Chap. 3, I discuss the equilibrium accumulation trajectory in detail. In Chap. 4, the necessity of crises and its triggers are distinguished more carefully. In Chap. 5, I provide more in-depth discussion of the sublation of the capitalist society from the perspective of the fetters of the production force in relation to production. Regarding other differences with the first edition, I hope the readers will compare and find them.

Unfortunately, I have not been able to accomplish the two points I promised in the first edition yet, that is, vivid descriptions based on actual occurrences in the capitalist economy and the explication of the accumulation theory to state monopolistic capitalism. I have to blame myself for the negligence. I hope to fulfill my promises in the near future.

I owe the publication of this book to the assistance of many people: Professor Hideo Hayashi, who recommended me to write the book; those who took over the activity for democratic movement; Mr. Hiroshi Iwata, Mr. Fumitaka Nishibori, Mr. Yoshiharu Kikumoto, Mr. Mitsuhide Koga, Mr. Hisashi Motoki, Mr. Katsumi Murakami, and Mr. Yasuhiro Sakai, who helped me in making the glossary and index



for the first edition; Mr. Masakazu Kitano, Mr. Takeshi Nakatani, Mr. Kazuo Mino, Mr. Yoshikazu Sato, and Mr. Kazuo Inaba, who helped me in making the mathematical appendix, index, and proofreading the second edition; Ms. Motoko Tanaka and Mr. Keiichi Shimazaki of Chikuma Shobo Publishers, who put forth great effort through the planning to the completion of this book. Here, I express great thanks to the abovementioned people.

Kobe, Japan  
March 1976

Nobuo Okishio

## Preface to the First Edition

In this book, I endeavor to answer the following questions as simply as possible: What are the fundamental features of a capitalist society? How does a capitalist society continue reproducing? Why do crises and business cycles occur in a capitalist society? How do trends in a capitalist society evolve in the long run? Although I intended to write this book in an easy-to-understand manner, I am not sure how successful my effort is. No one can explain economic problems plainly without fully understanding them. If the reader finds this book difficult, it may reveal the limits of my ability.

The outline of the book was developed based on my lectures at Kobe University over the past five or six years. I am sorry for the students who were put in a situation as if they were being forced to eat a half-cooked meal. At this point, I hope the meal becomes edible. I could not have finished this book without the feedback of the students in my classroom and serious discussions during undergraduate and graduate seminar classes. I discussed several points in this book with graduate students for such a long time that we forgot who initiated the discussion.

I describe a few actual historical events under the capitalist system in this book. Marx's *Capital* refers to numerous examples based on actual and vivid facts and deeply impresses us. In contrast, this book may seem dull and unimpressive. I apologize to the readers for the lack of vivid actuality. I hope to fulfill my responsibility to write more vivid descriptions on other occasions.

Further, I hope to explicate the theory of capital accumulation in state monopolistic capitalism based on this book, unless it is deemed to contain serious errors. In doing so, I will seek to confirm the validity of the theory.

Through writing this book, I deepened my understanding of various issues, in particular, the validity of *The Capital*. In this sense, I have learned a lot by completing this book. I would like to thank Professor Hideo Hayashi of Tokyo Metropolitan University, who gave me the opportunity to write this book.

Many people were responsible for tasks related to completing this book. In producing the glossary, reference, and index, I was assisted by Mr. Hiroshi Iwata, Mr. Fumitaka Nishibori, Mr. Yoshiharu Kikumoto, Mr. Mitsuhide Koga, Mr. Hisashi Motoki, Mr. Katsumi Murakami (graduate students, Kobe University), and Mr.

Yasuhiro Sakai (faculty of Economics, Kobe University). I sincerely appreciate the abovementioned people.

Kobe, Japan  
January 1967

Nobuo Okishio

# Contents

<b>1</b>	<b>Introduction</b>	1
1.1	The Structure of This Book	2
1.2	Various Issues Today	3
1.3	The Relationship Between <i>Capital</i> and This Book	6
<b>2</b>	<b>Fundamental Structure of Capitalist Economy</b>	9
2.1	The Characteristics of a Capitalist Economy	9
2.1.1	Productive Force and Production Relations	10
2.1.2	Productive Forces and Production Relations in the Capitalist Economy	18
2.2	The Conditions for Profit Existence	24
2.2.1	Various Vulgar Views	24
2.2.2	Casual Observations and the Question	27
2.2.3	The Conditions for Profit Existence	29
2.2.4	A Mechanism to Guarantee Profits	41
2.3	Theories of Determination of the Real Wage Rate	44
2.3.1	The Reproduction Cost Theory	44
2.3.2	The Marginal Productivity Theory	46
2.3.3	The Labor-Market Theory	47
2.3.4	The Commodity-Market Theory	49
2.4	Mechanism of Determination of the Real Wage Rate	56
2.4.1	Reproduction of Wage-Labor Power and Real Wages	57
2.4.2	Temporary Determination of the Real Wage Rate	61
2.4.3	Factors that Determine the Real Wage Rate	69
2.4.4	Movement of the Real Wage Rate	72
	Mathematical Appendix	74
<b>3</b>	<b>Extended Reproduction in the Capitalist Economy</b>	89
3.1	Reproduction	89
3.1.1	Reproduction in General	89
3.1.2	Reproduction in the Capitalist Economy	97
3.2	Various Theories on the Capital Accumulation	100

3.2.1	David Ricardo's Point of View .....	101
3.2.2	Malthus's View .....	109
3.2.3	Sismondi, the Narodniks, and Luxemburg's View .....	114
3.3	Extended Reproduction in the Capitalist Economy .....	120
3.3.1	Reproductive Replacement in the Capitalist Economy: Simple Reproduction .....	121
3.3.2	Extended Reproduction in the Capitalist Economy .....	130
3.4	The "Equilibrium" Accumulation Trajectory .....	143
3.4.1	Steady Extended Reproduction Trajectory .....	144
3.4.2	The Equilibrium Accumulation Trajectory: A Constant Technology Case .....	147
3.4.3	The Implication of the Equilibrium Accumulation Trajectory .....	152
3.4.4	An Equilibrium Trajectory of Capital Accumulation with Technological Progress .....	160
	Mathematical Appendix .....	166
<b>4</b>	<b>Accumulation and Crisis in Capitalist System .....</b>	<b>175</b>
4.1	Cumulative Process of Disequilibrium .....	175
4.1.1	The Vulgar View .....	175
4.1.2	Importance of Accumulation Demand .....	179
4.1.3	Capitalists' Decision on Accumulation Demand .....	184
4.1.4	Cumulative Process of Disequilibrium .....	188
4.2	Theories on Economic Crisis .....	197
4.2.1	Underconsumption Theory .....	198
4.2.2	Theory of Declining Profit Rate Due to Real Wage Rate Increase .....	206
4.3	Economic Crisis .....	212
4.3.1	Inevitability of Economic Crisis .....	213
4.3.2	Triggers of Economic Crisis .....	219
4.3.3	Implications of Economic Crisis .....	224
4.4	Reversal .....	230
4.4.1	Inevitability of Reversal .....	230
4.4.2	Triggers of Reversal .....	233
4.4.3	Business Cycle .....	239
	Mathematical Appendix .....	242
<b>5</b>	<b>Tendency Law in Capitalistic Accumulation .....</b>	<b>247</b>
5.1	Arguments on Tendency Law .....	247
5.1.1	Counterarguments Against Tendency Law .....	247
5.1.2	Equilibrium Growth Theory .....	251
5.1.3	Breakdown Theory .....	253
5.2	Marx's Tendency Law .....	256
5.2.1	Law of the Tendency of the Rate of Profit to Fall .....	256
5.2.2	The Law of the Progressive Production of the Relative Surplus Population .....	260

5.2.3	Implication of the Laws .....	267
5.3	Capitalist Production Relations and Fetters to the Productive Force .....	268
5.3.1	Difficulty of Realization and a Fall in the Profit Rate in Relation to an Increase in the Productive Force .....	270
5.3.2	Increase in the Minimum Required Funds and the Mobilization of Public Funds .....	272
5.3.3	Global Control Over Nature and Environmental Pollution .....	275
5.3.4	Information-Processing Ability and Its Monopoly .....	277
5.4	Transformation of the Capitalist System .....	279
5.4.1	Rebellion of the Labor Class .....	280
5.4.2	Realistic Direction of Human Continuance .....	282
6	<b>A Vision Toward New Society</b> .....	285
	<b>References</b> .....	289
	<b>Index</b> .....	293

## About the Author

**Nobuo Okishio** was born in 1927 and died in 2003; the late Prof. Nobuo Okishio was an emeritus professor of economics of Kobe University, the former president of the Japan Association of Economics and Econometrics (currently, the Japanese Economic Association), and a member of the Science Council of Japan. Professor Okishio was awarded the Nikkei Prize for Economics Books in 1977.

Major journal articles included “Monopoly and the Rates of Profit” (*Kobe University Economic Review*, No. 1, 1955, 71–88); “Technical Change and the Rate of Profit” (*Kobe University Economic Review*, No. 7, 1961, 85–99); “A Mathematical Note on Marxian Theorems” (*Weltwirtschaftliches Archiv*, Vol. 91, No. 2, 1963, 287–297); “A Formal Proof of Marx’s Two Theorems” (*Kobe University Economic Review*, No. 18, 1972, pp. 1–6); and “Notes on Technical Progress and Capitalist Society” (*Cambridge Journal of Economics*, Vol. 1, 1977, pp. 93–100). He is the author of *Essays on political economy: collected papers* (1993, P. Lang: Frankfurt am Main) and 13 books in Japanese and edited *Business cycles: theories and numerical simulation* (1992 P. Lang: Frankfurt am Main) and 11 books in Japanese.

Professor Okishio taught and conducted research at Kobe University (1950–1990) and Osaka University of Economics (1990–2000).

His major contributions range from Marxian economics, which include Marxian Fundamental Theorem and the Okishio Theorem, Keynesian economics including Keynes’ aggregate supply function, and Harrod’s instability principle.

# List of Figures

Fig. 2.1	Production relations and productive force .....	17
Fig. 2.2	Cooperation and productivity .....	22
Fig. 2.3	Exchange between money and commodities .....	30
Fig. 2.4	Production technology and prices .....	34
Fig. 2.5	Range of prices to support positive profit .....	36
Fig. 2.6	Supply behavior .....	54
Fig. 2.7	Real wage rates clearing all commodity markets .....	69
Fig. 2.8	Shift of supply behavior .....	72
Fig. 2.9	Mechanism of real wage rate determination .....	73
Fig. 2.10	Determination of profit rate .....	75
Fig. 2.11	Relationship between real wage rate and uniform rate of profit .....	76
Fig. 2.12	Effect of decrease in labor coefficient in production goods sector .....	77
Fig. 2.13	Determination of market equilibrium in terms of real wage rate of both sector .....	80
Fig. 2.14	Shift of supply behavior in production goods sector .....	84
Fig. 3.1	Ownership mode and distribution mode .....	95
Fig. 3.2	Various steady paths .....	148
Fig. 3.3	Various steady paths and labor supply .....	149
Fig. 3.4	Selling channel of production goods .....	151
Fig. 3.5	Actual accumulation path and equilibrium accumulation trajectory .....	153
Fig. 3.6	Actual accumulation path and equilibrium accumulation trajectory under stationary labor supply .....	153
Fig. 3.7	Relationship between real wage rate and rate of accumulation .....	155
Fig. 3.8	Movement of employment share of production goods sector ...	173
Fig. 4.1	Time structure of accumulation demand .....	186
Fig. 4.2	Determination of production capacity .....	189
Fig. 4.3	Determination of demand in period $t$ .....	189



Fig. 4.4	Determination of accumulation demand .....	190
Fig. 4.5	Determination of demand in period $t - 1$ .....	190
Fig. 4.6	Overall determination .....	190
Fig. 4.7	Determination of utilization rate and accumulation rate .....	191
Fig. 4.8	Reasoning behind the cumulativeness of disequilibrium .....	196
Fig. 4.9	Underconsumption theory .....	200
Fig. 4.10	Downward cumulative process .....	205
Fig. 4.11	Theory of increase in real wage rate as trigger .....	210
Fig. 4.12	Revised theory of increase in real wage rate as trigger .....	211
Fig. 4.13	Equalization of profit rates through trade cycles .....	227
Fig. 4.14	Cumulative disequilibrium process .....	244
Fig. 5.1	Relationship between production relations and economic phenomena .....	248
Fig. 5.2	Relationship among productive force, production relations and economic phenomena in capitalist system .....	249
Fig. 5.3	Relationship among productive force, production relations and human behavior in general .....	250
Fig. 5.4	Long run tendency of profit rate .....	258
Fig. 5.5	Profit rate and increase rate of capital stock .....	261

# List of Tables

Table 2.1	Summary of comparative statics .....	87
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# Chapter 1

## Introduction



**Abstract** In the introduction, the succeeding chapters, from the fundamental structure of a capitalist economy to the authors' vision toward a new society, are succinctly summarized. This is followed by a short commentary on state monopoly capitalism—it was not analyzed any further in the book. The commentary revolves around the question of whether it is possible to avoid a crisis at the stage of state monopoly capitalism through the intervention of the state in the economy and whether state monopoly capitalism can continue to exist without expending very large amounts on military resources, among others. Last, the chapter explores the relationship between Marx's *Capital* and this book. Based on an analysis of *Capital*, the book initially provides an outline of the capital accumulation processes in a capitalist society but eventually departs to investigate alternative possibilities. One is the order of content development: while Marx started with the most elementary concept of commodity, deduced money, then capital, and so on, this book assumes a different order of development. Another is a proposition that runs contrary to that of *Capital*: while Marx thought that the rate of exploitation falls at the last stage of the upward cumulative process of the trade cycle, the book proposes that the rate of exploitation actually rises at that stage.

This book will outline the fundamental features of the accumulation process in the capitalist economy. The introduction will facilitate the understanding of subsequent chapters by briefly outlining three points: (i) the interrelationships of each chapter in this book; (ii) the relationships between the contents of this book and various contemporary issues; (iii) the relationships between the contents of this book and Karl Marx's *Capital: A Critique of Political Economy*. Readers are advised to re-read and reflect on this introduction after having read through this book. This introduction provides readers with the preliminary skills to read this book, while also being an aid to reorganizing their newly acquired knowledge after reading this book. It furthermore provides ideas on how to study this subject further.

## 1.1 The Structure of This Book

**Chapter 2:** In this chapter, we will examine what sort of productive force and peculiar relation of production a capitalist society holds, and how this forms a class society with distinctive features like commodity production. In this peculiar exploiting society, it is not sufficient to force workers to do surplus labor in production to continue and maintain exploitation. It is necessary to sell products, or, in other words, to realize the value of the commodities produced by the workers. However, under a capitalistic system, the critical source that decides the demand for commodities is the capitalists' accumulation demand. This accumulation demand becomes a crucial element that determines the temporarily given level of the profits realized, the rate of profit, and the real wage rate. As a result, the profit rate and real wage rate will shift according to the accumulation demand by capitalists. The question is, however, how will demand change? In Chap. 4, we explain how this change displays cyclical behavior and then examine the secular tendencies of the profit rate and real wage rate in Chap. 5.

**Chapter 3:** A capitalistic society is a class society in which production is governed by the commodity-economic principle. To sustain such a society, reproduction is of vital importance, and the value of a commodity must be realized in the market. How this need can be detected depends on various conditions. If these conditions cannot be satisfied in the long run, the capitalist society ceases to exist. In Chap. 4 we will explain how to resolve this contradiction, while Chap. 5 shows the inevitability that, in spite of these resolutions, opportunities to deny reproduction in the capitalist economy gradually grow.

**Chapter 4:** The disequilibrium, once occurring, spreads cumulatively in a capitalistic society. This is the result of its fundamental contradiction. The accumulation demand by capitalists will accelerate in a unidirectional and imbalanced manner, resulting in the same, unidirectional, and imbalanced cumulative behavior in production standards, the profit rate, the real wage rate, and the exploitation rate. Nevertheless, for a capitalistic society to maintain its reproduction, it is necessary to force a violent equilibration to reverse the process of disequilibrium. As a result, economic crises and turnovers are inevitable. This suggests that it is inevitable for a capitalist economy to undergo cyclical fluctuations, which are explained in the following: upward cumulative process of disequilibrium → halt of process → economic crisis → downward cumulative process of disequilibrium → halt of process → turnover → upward cumulative process of disequilibrium. These cyclical processes repeat the processes of strong accumulation and destruction of capital.

**Chapter 5:** Through these cyclical movements, a capitalist economy expands its reproduction and innovates production techniques. How does a capitalist society develop a tendency to go through these cyclical movements? The following phenomena can be observed: a deepening difficulty in finding markets, a tendency toward a falling profit rate caused by an increase in productivity, an increase in the size of the minimum fund for finance in the basic production sectors, the private use of public funds by private capital, an increase in the ability to control nature and

information, an increase in pollution, deepening unrest in the ruling class and an increase in rebellion by the working class. Marx and Lenin described the result in the following words:

[a]t a certain stage of development, the material productive forces of society come into conflict with the existing relations of production or – this merely expresses the same thing in legal terms – with the property relations within the framework of which they have operated hitherto. From forms of development of productive forces, these relations turn into their fetters, and an era of social revolution begins. The changes in the economic foundation lead, sooner or later, to the transformation of the whole immense superstructure.<sup>1</sup>

Competition becomes transformed into monopoly. [...] Capitalism in its imperialist stage leads directly to the most comprehensive socialization of production; it, so to speak, drags the capitalists, against their will and consciousness, into some sort of a new social order, a transitional one from complete free competition to complete socialization<sup>2</sup>

“it becomes evident that we have socialization of production, [...] that private economic and private property relations constitute a shell which no longer fits its contents, a shell which must inevitably decay if its removal is artificially delayed, a shell which may remain in a state of decay for a fairly long period (if, at the worst, the cure of the opportunist abscess is protracted), but which will inevitably be removed.”<sup>3</sup>

## 1.2 Various Issues Today

The state-monopoly capitalism in the present day is not a subject to be analyzed in this book. It is brought up only to explain the reasons for the development of monopoly and state intervention, through explanations on the basis of the general foundation of a capitalistic economy. The contents of this book, however, are related to various issues in the present day, some of which are as follows:

- (i) Is it possible to avoid a crisis in the stage of state-monopoly capitalism, through the state’s intervention in the economy? This issue plays a vital role in the theories justifying modern capitalism. The point of view on the economic crisis described in this book shall provide a basic idea to answer this question. We see that economic crisis is inevitable since, in a capitalist economy, disequilibrium must be cumulative based on its fundamental contradiction. This upward cumulative process of disequilibrium must be reversed in order for a capitalist economy to reproduce itself. The reversal of the upward cumulative process of disequilibrium inevitably induces a downward cumulative process. Therefore, to assess if economic crisis is avoidable under state-monopoly capitalism, the following points need assessment: (a) Did the state-monopoly capitalism address the fundamental contradiction of the capitalist economy? (b) Did it resolve the cumulative process of disequilibrium in the capitalist

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<sup>1</sup> Marx [2, Preface, p. 263].

<sup>2</sup> Lenin [1, p. 205].

<sup>3</sup> Lenin [1, p.303].

economy? (c) Did it block the disequilibrium being cumulated downward when the upward cumulative process of disequilibrium stopped?

State-monopoly capitalism is a mechanism under which capitalism not only continues to be the class-society in which production is governed by commodity-economic principles, but is also strengthened as such. Therefore, it continues to restrict the amounts of the workers' consumption of goods as well as the production of such goods. It does not change the decision-making mechanism of accumulation in which capitalists increase capital for accumulation when they expect greater profits in the future, suggesting that it does not block the cumulative process of disequilibrium. If an upward cumulative process of disequilibrium is blocked, and the accumulation demand by capitalists decreases without being offset by state expenditure, aggregate demand decreases. The accumulation demand by the capitalists decreases further, followed by a downward cumulative process of disequilibrium. If the state quickly increases expenditure to offset the decrease in accumulation demand by capitalists, the downward cumulative process of disequilibrium may be reversed in a shorter period. Thus, under state-monopoly capitalism, the cumulative process of disequilibrium and the turn of the cumulative process from upward to downward do not cease to exist, but change their forms. As a result, the following issues arise:

- (ii) Can state-monopoly capitalism continue to exist without a vast amount of military expenditures? If the accumulation demand by capitalists decreases, a downward cumulative process of disequilibrium begins. If it continues at a minimal level of forced simple reproduction, it will become difficult to maintain the capitalistic relations of production. In this case, the state must, on a large scale, increase its expenditure to stop the downward movement of disequilibrium. Although this is not impossible, it seems rather difficult for the state to increase its expenditure in a short period without resorting to military spending.

However, the very purpose of military expenditures for state-monopoly capitalism is not to create demand by the state to prevent aggravating an economic crisis. If it was only for such a purpose, other forms of expenditure might create demand, but only the military powers appropriated by military expenditure can play both an economic and a political role. These roles ensure the exports of capital and goods to monopolize resources and labor power by oppressing people in other countries, and strengthen the mechanism of exploitation by oppressing its own people, especially the working class, by appealing to military powers. For these purposes, military power is essential in state-monopoly capitalism.

- (iii) How is production equipment embodying old technology scrapped in state-monopoly capitalism? Normally, in a capitalist society, a large amount of such production equipment is scrapped and replaced by new technology when a downward cumulative process of disequilibrium begins, followed by the prices of commodities falling below the money wage rate, generating losses. Now,

suppose that a downward cumulative process has been blocked by state expenditures in a short period, or that even under a downward cumulative process, a high level of monopoly prices slowed down the speed of such forced scrapping. How would capitalism proceed with removing this production equipment? If they are not to be scrapped, the capitalist economy would have to hold an enormous amount of productive equipment embodying old technology, which soon will become impossible to operate, even if the market for commodities is sufficient, since the labor power will be relatively insufficient. In the stage of monopoly, the productive equipment embodying old technology is removed through mergers and acquisition, or through accelerating depreciation. Moreover, in the stage of state-monopoly capitalism, a build-and-scrap policy on state funds is adopted. Further on, in state-monopoly capitalism, state funds are used to develop and introduce new technology, at which point it becomes clear that monopoly capital is parasitic.

- (iv) In state-monopoly capitalism, the role of the organs of the state is immensely significant in the economy. If workers can fill posts in the state organs and go on intervening in national policies, will they also be able to change the foundations of the capitalist economy gradually? Such a question is derived from the fact that the fundamental character of the state in state-monopoly capitalism, as well as the essential qualities of the privately owned means of production in monopoly capital, are not sufficiently recognized. Monopoly capitalists hold the fundamental right to determine production plans of their privately owned means of production. The role of the state is to support and strengthen such rights. This is not something to be changed, even if working class representatives have power in government organs, as they would be converted to serving members of the organs of the monopoly capitalist state. For the state to wield its position to deprive the decision-making power of production from private monopolies, the state's power must be transferred to the people led by the working class. In this case, it is necessary that the internal activities of the state organs must cooperate with the revolutionary movements led by the working class. In any case, it is impossible to hope that the character of the state will gradually change and that the foundations of the capitalist economy will be destroyed without a struggle for state power.

There are, of course, other significant issues in the present day. We cannot talk about the present day if we do not have a full understanding of the contradictions between socialism and imperialism, between oppressed nations and imperialism, between imperialisms, or in socialism. Especially when we consider the issues in Japan, it is necessary to investigate the point that a monopoly capitalism state depends on another. However, these issues are outside the scope of this book. It is not because we do not think these issues are essential, but because we believe these issues require further concrete analysis than what this book can provide. Still, at the very least, we hope to provide general, basic ideas to help such an analysis.

### 1.3 The Relationship Between *Capital* and This Book

In the history of economics, it is Marx's *Capital* that captured the capitalist society as a transitional form of human societies, analyzed the capitalist society from its base to its trend, and made clear that the capitalist society is transitional. Based on an analysis of *Capital*, we provide an outline of the accumulation processes of capital in the capitalist society. Both the structure and some content of this book are, however, immensely different from *Capital*. Let us explain why we took a different approach from Marx.

#### (i) The order of content development

Marx begins *Capital* with the concept of commodity, which is an elementary unit in the capitalist economy, before explaining money, capital, wage labor, surplus value, retransformation of surplus value to capital, i.e., accumulation of capital, industrial reserve army, realization of the value of commodities and the supplementation of materials, i.e., reproduction, profit, rate of profit, average rate of profit, commercial profits, interests, and ground-rent. Marx then discusses their inevitabilities and forms of movements in the capitalist economy. This order of development is necessary to explain how and under what kind of production relationships these concepts are generated in the capitalist economy. For example, when we do not know how profits and interests are generated and what their substances are, we cannot fully recognize the capitalist society—even if we can see superficial movements of profit and interest.

In this book, however, we do not adopt such an order of development. On the premise that these concepts explaining the capitalist society have already been explained in *Capital*, we use already-built concepts such as profit and wage labor from the beginning.

In each stage of argument, the conditions will be outlined first, before analyzing them later based on determined concepts. For example, fluctuations in wages that are generated by the cyclical movements in the capitalist economy are abstracted and determined as the reproduction costs of labor power when arguing the commercialization and value determination of labor power. Yet, since this is determined through the actual movements of wages, the determination of the value of labor power is made in the form of a logical “debt” at this stage. Nonetheless, from the beginning of this book, we will explain how the value of reproduction cost of labor power is determined through the actual movement of wages.

It is effective to follow this manner of development while learning the essential relevancy of *Capital*, although it might lead to a loss of perspective regarding the essential relevancy. Nevertheless, the authors consider it to be the best method.

#### (ii) A proposition that runs contrary to *Capital*

Most of the important propositions made in *Capital* are understandable and are thus made the core of each chapter (although the orders of development are different, as highlighted previously). However, one proposition was replaced: the rate of exploitation, and the assumption that it falls at the last stage of the upward cumulative process of the trade cycle. It states that wages rise, and that the rate of exploitation falls as a



result of the decline in unemployment that is caused by the decrease in the reserve army. In this book, we propose that the rate of exploitation rises at that stage.

It is left to the readers' criticism whether this proposition is legitimate or not. Although it may be argued that this subject is not appropriate for a beginner-level book, the proposition cannot be avoided in an analysis of the accumulation processes of capital.

The author does not claim that he fully understands *Capital*. He thus highly recommends that you read Marx's work on your own. Even though this book is not a commentary on *Capital*, the author is pleased if, with the help of this book, readers develop an interest in the political and economic issues in transition and address present-day issues.

## Chapter 2

# Fundamental Structure of Capitalist Economy



**Abstract** This chapter examines the types of productive forces and production relations within a capitalist society and reckons how these influence the formation of a class society with idiosyncratic features such as commodity production. In this distinctively exploitative society, it is not sufficient to coerce workers to render surplus labor to sustain production, but it is also necessary to sell and realize the value of the commodities that they produce. However, under a capitalist system, the critical determinant of the demand for commodities is the demand of the capitalists' accumulation as it sets the rate and level of profit as well as sets the real wage rate. That is to say, the profit rate and real wage rate are expected to shift according to the accumulation demand of capitalists. How exactly demand changes—e.g., in a cyclical manner—is the subject of Chap. 4. The secular tendencies of the profit rate and real wage rate are tackled in Chap. 5.

### 2.1 The Characteristics of a Capitalist Economy

To elucidate the economic phenomena in a capitalist economy, it is necessary to clarify how these phenomena relate to the *fundamental characteristics* of a capitalist economy. For example, it is both theoretically and practically important to know whether phenomena such as unemployment or economic crises are generated because of the fundamental characteristics of the capitalist economy itself, whether they are due to causes that may be just accidental to the capitalist system, or because of the common features of every society. Theoretically, this is important because, through the investigations, we can understand the fundamental structure of a capitalist economy, and, practically, we can correctly understand the possibility and the right policies to eliminate unemployment and economic crises.

First, we will explain the characteristics of a capitalist economy to clarify how the economic phenomena relate to the fundamental characteristics. In order to do so, it is essential to adopt the standpoint of capitalism being one peculiar form of human society. Therefore, in this chapter we show how the capitalist society is unique in our general human society.

## 2.1.1 *Productive Force and Production Relations*

### 2.1.1.1 **Productive Force**

When we talk about the fundamental characteristics of a capitalist system, it is necessary to understand its meanings. The word “characteristics” highlights what distinguishes a capitalist system from other forms of society, such as feudal societies, or communist societies, for example. However, regardless of the type of social organization, all share the fact of being a particular form of human society. And for human society to continue and sustain its existence, in whatever form, it must act upon nature and shape it for the benefit of human beings. If it did not, humanity would have become extinct at some point in natural history. This action of humans working on nature and transforming it usefully is what we call *production*, and thus production is the fundamental condition upon which human societies are predicated.

Human beings have been engaged in these production activities in a unique way. Certainly, the action of working on nature and transforming it for the survival of the species is not unique to human society, but rather a common act of all living beings. However, the way humans have gone about it is what is unique, what raises our power of control over nature significantly (*productive force*), and what distinguishes us from other beings qualitatively. The question then arises as to what the humans’ method of working on nature is, that distinguishes it from that of other creatures. The following three characteristics are undebatable.<sup>1</sup>

- (i) When humans work upon nature, it is done *consciously* rather than impulsively or instinctively;
- (ii) It is also achieved through the utilization of *means of labor* that were not created by nature but manufactured;
- (iii) Humans also work on nature collectively and *socially*, instead of individually.

When carefully considered, these three characteristics reveal themselves to be interdependent. When human beings engage in production activities consciously, prior to taking action, they foresee the results and are guided by their imagery. Namely, there is a certain plan. In order for humans to achieve this level of behavior, it was essential for there to have been a certain development of the human cerebrum and of its capacity for conceptualization through language. The development of the cerebrum is related to the evolution of our upper and lower limbs, which then led to the further evolution of our being able to assume the vertical position and become omnivorous, both related to laboring with the use of tools. The creation and development of language is also inseparable from the fact that our struggles against nature have been a social effort, involving cooperation with others. In this way, characteristic (i) assumes characteristics (ii) and (iii).

The same can be said of characteristic (ii). With the evolution of bodily members such as hands and arms, feet and legs, nails, teeth, among others, human beings developed instruments for labor, which they utilized to increase their power of control

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<sup>1</sup> Engels [7, pp. 452–464].

over nature. Here we need to mention that using and producing labor instruments require not only the development of the cerebrum above a certain level, but also the presence of social activities of production. This is because the production of these instruments requires not only cooperation with others, but also the guarantee of sustenance supplies during the production period, followed by a division of labor among the members of society. Thus, characteristic (ii) is dependent on characteristics (i) and (iii), from which we can conclude that the common denominator of all three is that the production activities of humans are accomplished socially.

### 2.1.1.2 Production Relations

Human beings form various social relations regarding production as follows<sup>2</sup>:

1. Cooperation and division of labor: When humans struggle against nature to survive, they face it not individually but in concert with others. These mutual relationships among people concerning production activities are *cooperation* and *division of labor*.
2. Ownership of means of production: The essential feature of human labor lies in production utilizing the *means of production* (labor instruments, objects of labor), which are also produced by human beings. Therefore, these means play a vital role in the production activities of human beings, in which *ownership* of the means of production becomes a part of the relationships established among humans. In other words, it is the distribution relation of the means of production among the members of society.
3. Who works and who does not: Although production activities are essential to human society to sustain itself, not all members in society always take part in them. Therefore, each society has to decide in its own way *who does the labor* and who does not. In other words, this is the distribution relation of labor among members of society.
4. Decision making of production: Another characteristic of human production activities is that labor is a conscious act and not an impulsive act. This means that they make prior decisions and act accordingly. The *decisions* required are as follows.
  - (a) Decisions on kinds and volumes of products: what to produce and how much to produce?
  - (b) Decisions on production methods: how to produce the products?
  - (c) Decisions on replacement and accumulation: how to prepare for production during subsequent stages?

These decisions must be made by someone, and who that someone will be is another one of the production relationships among people.

5. Distribution of products: The results of productive activities must be distributed to the members of the society. And it is obvious that this decision regarding who

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<sup>2</sup> Okishio [21, Part 2, Chap. 1, pp. 269–276].

will own how much of the products is one relation among people. This is the relation of *product distribution* among members of society.

Among these forms of relations, which can be classified as *fundamental*? Here we use the word “fundamental” in the following two senses. First, a fundamental relation will characterize and distinguish a society from others. Second, it will determine and give rise to other relations of production that characterize that society. Hence, by finding out what the fundamental relation of production is, we will be able to understand how one certain form of society—let us say, a capitalist society—emerges then disappears, which then leads to understanding how social relations emerge and disappear in any other form of society, and thus to understanding the fundamental characteristics of that society.

In the sense mentioned above, the fundamental relation of production is the *ownership of the means of production*. The rationale is as follows.

The first relation of production, i.e., cooperation in regard to labor, is not a fundamental form of one society, since it does not distinguish itself as a certain form of society from others. From primitive times until now, human beings have always performed production as a group and never alone. Therefore, both cooperation and division of labor exist in any form of society, although the range of their applications and their social characteristics are different; those differences are generated by the other relations of production, and not by cooperation or division of labor themselves. In this sense, cooperation is the most essential human relation in regard to production, but not as fundamental as to give a certain society a particular character as we are investigating here.

The rest of the forms of relations, as listed from 2 to 5, each characterize a specific form of society. Who owns the means of production; who is in charge of labor; who decides in matters of production; who owns the products—these are four questions whose answers will determine the form of a particular society.

Among these four modes of productions, once it is decided who owns the means of production, the other forms will be regulated and determined consequentially.

In order to understand this mechanism, let us consider a hypothetical situation where person A owns the means of production X. This suggests that A can use and/or dispose of X as he or she likes. Moreover, A will have the power not to be interfered with or rejected by other members of society—let us call them B, C, and D—during the course of using or disposing of X. Therefore, the relation where A owns X is actually a *human relation* between person A and persons B, C, and D regarding the means of production X, although at first glance it seems that the relation between A and X is a relation between *person* A and *object* X. This relation of production determines who is responsible for the labor, who decides in matters of production, and who will own the products.

At the stage in human history when labor productivity was extremely low and surplus products could not be produced, any member of society who was able to work had no other choice but to work, and all members of the society collectively owned the means of production. However, when labor productivity rose to a higher level and surplus products began to be produced, the society did not require all the

eligible laborers to work in order to sustain its existence, which then led to the issue of who works and who does not. And how this is determined depends on who owns the means of production. In such societies where the means of production are not owned collectively but exclusively by a handful of members, people who are excluded from ownership have to work while the owners live off the surplus products. On the other hand, in a society where the means of production are owned collectively, labor is a role given to all eligible members.

As already discussed, the owners of the means of production are the ones who make the decisions regarding the latter. Moreover, these decisions include decisions about production, which signifies that the planning and decision making of how and how much to produce is in the hands of the owners. Therefore, in a society where the means of production are owned as private property, the decisions about production are made as private affairs, and in a society where the means of production are owned collectively, the decisions are to be made collectively.

The distributive relation of products is also determined by the ownership of the means of production. When production is carried out, all the products belong to the owners of the means of production. But the fact that people excluded from such ownership and rather forced to labor, for example slaves and wage laborers, actually receive the living means necessary to reproduce their labor power seems at first glance to contradict the fact that ownership of all the products belongs to the owners of the means of production. However, this contradiction is only apparent. When products have been produced, at first all of them belong to the owners of the means of production, who then make the decision as to whether to distribute materials for consumption to their laborers for the purpose of maintaining their labor power and engaging it in future production. The fact that owners of the means of production own products implies that they have control over the *usage* and/or *disposal* of products. The decision on reproduction of labor power and the replacement/expansion of production facilities in order to maintain or enlarge future production thus rests with the owners of the means of production.

### 2.1.1.3 Productive Forces and Production Relations

Each specific system of human society has its own particular relations of production. However, could it be possible for a certain production relation, i.e., a capitalist one, to establish and function under *any* level of productive forces? Or does it require human productive forces to have particular features, and a certain level for such a production relation to be established? This question is significant in the following sense.

Let us suppose that any production relation can be established and function under any productive forces. This means that human beings can select *any* production relation regardless of the level of productive forces. The fact that the dominant production relation in the world throughout the nineteenth and twentieth centuries was a capitalist production relation can be considered simply *accidental*, suggesting that