Economic Analysis of Social Common Capital

Social common capital provides members of society with those services and institutional arrangements that are crucial in maintaining human and cultural life. The term social common capital comprises three categories: natural capital, social infrastructure, and institutional capital. Natural capital consists of all the natural environment and natural resources, including the earth’s atmosphere. Social infrastructure consists of roads, bridges, public transportation systems, electricity, and other public utilities. Institutional capital includes hospitals, educational institutions, judicial and police systems, public administrative services, financial and monetary institutions, and cultural capital. This book attempts to modify and extend the theoretical premises of orthodox economic theory to make them broad enough to analyze the economic implications of social common capital. It further aims to find the institutional arrangements and policy measures that will bring about the optimal state of affairs in which the natural and institutional components are blended together harmoniously to realize the sustainable state suggested by John Stuart Mill.

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HIROFUMI UZAWA
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Social common capital provides members of a society with those services and institutional arrangements that are crucial in maintaining human and cultural life. It is generally classified in three categories: natural capital, social infrastructure, and institutional capital. These categories are neither exhaustive nor exclusive; they merely illustrate the nature of functions performed by social common capital and the social perspectives associated with them.

Natural capital consists of the natural environment and natural resources such as forests, rivers, lakes, wetlands, coastal seas, oceans, water, soil, and, above all, the earth’s atmosphere. They all share the common feature of being regenerative, subject to intricate and subtle forces of the ecological and biological mechanisms. They provide all living organisms, particularly human beings, with the environment to sustain their lives and to regenerate themselves.

Social infrastructure is another important component of social common capital. It consists of roads, bridges, public transportation systems, water, electricity, other public utilities, and communication and postal services, among others. Social common capital also includes institutional capital such as hospitals and medical institutions, educational institutions, judicial and police systems, public administrative services, financial and monetary institutions, cultural capital, and others. They all provide members of a society with services that are crucial in maintaining human and cultural life, without being unduly influenced by the vicissitudes of life.

Social common capital in principle is not appropriated to individual members of the society but rather is held as common property
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resources to be managed by the commons in question, without, however, precluding private ownership arrangements. Nor is it to be controlled bureaucratically by the state. Thus, a problem of crucial importance in the theory of social common capital is to devise the institutional arrangements that result in the management of social common capital that is optimum from the social point of view. In this book, we introduce an analytical framework in which economic implications of social common capital are fully examined and we explore the conditions under which the intertemporal allocation of scarce resources, including both social common capital and private capital, is dynamically optimum or sustainable from the social point of view.

The dynamic models of social common capital introduced in this book may be regarded as the general equilibrium versions of those formulated in Uzawa (1974a,b,c; 1975; 1982; 1992b), in which, however, the phenomenon of externalities was not explicitly discussed. In the general model of social common capital introduced in this book, the phenomenon of externalities, both static and dynamic, is explicitly incorporated in the construct of the model and their implications for the processes of resource allocation, including both social common capital and privately managed scarce resources, are fully explored. The dynamically optimum or sustainable allocation of scarce resources occurs when the imputed prices associated with the accumulation and use of social common capital are used as signals in the allocative processes. Privately owned scarce resources and goods and services produced by private economic units are allocated through the mechanism of market institutions.

The present study, in conjunction with Economic Theory and Global Warming, recently published by Cambridge University Press, is an offshoot of my attempt to modify and extend the theoretical premises of orthodox economic theory to make them broad enough to analyze the economic implications of social common capital, and to find the institutional arrangements and policy measures that will bring about the optimal state of affairs in which the natural and institutional components are blended together harmoniously to realize the sustainable state in the sense introduced by John Stuart Mill in his classic Principles of Political Economy (1848), particularly in the chapter entitled “On Stationary States.”
In this book and *Economic Theory and Global Warming*, I have endeavored to construct a theoretical framework that enables us to examine in detail the institutional and policy arrangements under which the utopian stationary state envisioned by John Stuart Mill may be realized. However, the problems posited here have turned out to be much more difficult than I originally anticipated. This book, therefore, presents the results of my endeavor, albeit in a very preliminary stage, in a form that may be accessible to colleagues and students interested in the economics of social common capital as well as in economic theory in general. Each chapter is presented in such a manner, occasionally at the risk of repetition, that it may be read without prior knowledge of other chapters. I wish that young economists with competent analytical skills and a deep concern for the welfare of future generations will follow the lead suggested and develop a comprehensive theory of social common capital.

I would like to acknowledge with gratitude the valuable comments and suggestions my colleagues have given me while I have been engaged in the study and research for this book. I particularly thank Kenneth J. Arrow, Kazumi Asako, Partha Dasgupta, Yuko Hosoda, Dale W. Jorgenson, Karl-Göran Måler, Robert M. Solow, Keisuke Takegahara, David Throsby, and Katsuhisa Uchiyama. I would also like to thank the readers of the original manuscript, who made thoughtful and detailed comments and suggestions.

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