文明演变的原因曾经引起了学者们的普遍关注，新制度经济学用新古典的市场经济模型很好地解释了产业革命后西欧的兴起，却未能解释东方文明的衰落与作为现代文明标志的产业革命的爆发本身。本文用公共经济制度变迁来解释人类文明的本质，用公共经济效率的改进来考察人类文明的诞生，并用公共产品需求结构的变迁对强制性公共经济制度变迁的推动作用来解释农耕文明向工业文明的演变。本文的结论指出，公共经济制度在大众民主和精英专制之间的摇摆则解释了现代经济危机的频繁发生与现代文明的停滞不前。

关键词：制度变迁 公共经济 文明演变

The causes of the evolution of human civilization have drawn much attention among social scientists. The new institutional economics (NIE) and its model of property rights explain the rise of the West Europe, but not the Industrial Revolution itself; nor have they addressed the causes for the rise and fall of civilizations in the East. By defining human civilization within the context of the public economic institution, we interpret this change in the public economic institution using swings in the demand structure of public goods. We see these swings as a contributing cause of the evolution of human civilization from traditional to modern. Our conclusions show that the shifts of public economic institutions between

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the mass democratic one and the elite constitutional one contributes to the current modern economic crisis and the stagnancy of modern civilization.

**Keywords:** institutional change, public economy, civilization evolution

The Great Depression of the 1930s reminds us that market economy outcomes are not the objective of human economic activity only. Rather, non-market economies also play a critical role. Some experts have made efforts to change this ingrained, traditional approach in developed countries, and to enquire into the nature of these non-market economies. But their efforts have been either overlooked or misunderstood by economists and the populace, who perceived the market economy as being the only efficient organizational form of human economic activity.

In view of this, the public economy or government performance has increasingly become a hot topic in economics and politics. On the one hand, however, centralized absolutism, as a public economic system, has been completely discarded by economic theorists, policy makers and the general populace, at least in their arguments over the so-called democratic system. Public finance, for example, which is seen as a form of democracy, has dominated almost all concerns over public economic affairs. On the other hand, more and more researchers have come to realize that democracy has discouraged economic growth. The conflict between democracy and economic growth has confused many economists and made them stress the constitutional mechanism of modern society without taking economic analysis into account.

In this paper, we try to explain the success and decline of different civilizations by constructing a new model of public economics in which the structure of public goods has determined the changes in their respective public economic institutions. By analyzing the structure of public goods and the conflict between the different demands on them, we contribute to an interpretation of the puzzle over the relationship between democratic polity and economic growth. We argue that the public economy determines the evolution of human civilization and that every new civilization or economic revolution came from a radical change in the public economic institution.

In our discussion, the role of democracy in the evolution of human civilization experienced a samsara or a reversal of thousands of years of development. At first, by investigating human economic activities from the time of primitive societies to the pre-modern era, we find that, over the course of most of human history, the subsistence of people in groups as public economies was either the only or main objective of economic activity. Economic growth in ancient times was a direct reflection of growth in the population. As a result, there was

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only one kind of demand and no need to ask the demanders to show their preferences and to bargain with governments about the kinds of public goods they preferred. The efficiency of the public economy mainly relied on the power or coercive nature of the suppliers when there was only one kind of good (public) and a large group of demanders. We then conclude that the despotic polity, as an outcome of the reforming primitive democracy that prevailed in the ancient East, was the most efficient way to finance a public economy. As a result, agricultural civilization was popular for thousands of years.

The efficiency of the public economy necessarily brought an economic boom that resulted in demand for a variety of public goods. In this new situation, the revealing of preferences for public goods becomes more and more important, and the efficiency of the public economy, whose main objective becomes that of setting the conditions for the market economy, begins to depend on the bargaining mechanism between taxpayers and suppliers. The centralized way of funding the public economy has lost its advantage, and there is evidence that public finance as a mechanism for the transaction of public goods shows huge advantages over the traditional way, especially in supplying the conditions and mechanisms of the market economy. As a result, the trend in human society has been for the industrial revolution, or modern civilization, to replace agricultural civilization, as the market economy became what people pursued in modern times.

With the development of the market economy, however, the subsistence of the poor, as a necessary public good measure, was overlooked in a public-finance system in which all decisions about public goods were made by taxpayers, mostly the wealthy. In their struggle for subsistence, the poor responded with a socialist movement, or a wave of democracy that became widespread in the 19th century. This political ideology, where the poor voiced their demands, then became the accepted mechanism of public goods in the 20th century. In this system, decision makers are not necessarily the taxpayers. And because the poor pay little or no taxes, as decision makers of public goods they are generally careless about the efficiency of the public economy and the cost of public goods, and they tend to overlook the reality of market conditions. The natural outcome, especially for developed countries where democracy is absolute, is that economic growth that mainly comes from market activities is blocked.

In all, in modern times, even modern countries showed an advantage over ancient ones in terms of direct competition and promoted a democracy for universal suffrage after WWII. There seems to be a misunderstanding about modern industrial civilization. We suggest that the essence of modern industrial civilization is simply a public finance mechanism or a transaction mechanism of public goods that is defined as the decision mechanism of taxpayers. In contrast, a democratic system provides an ancient kind of public goods for the poor, which guarantees the subsistence of a society's least advantaged. Our conclusion is that the traditional civilization is similar to the modern one in that it is also a public economic institution. We also note that the so-called modern transformation of those non-Western countries is, in fact, a process wherein a new public economic institution becomes established,
and the frequency of economic crises shows that there are real challenges looming over the new modern civilization.

I. Human Civilization and the Non-Market Economy

The causes of the evolution of human civilization have drawn the attention of many social scientists. Some scholars attempted to explain the development of human society with technology, according to the philosophies of Marx's work. The new institutional economics (NIE) interpreted the rise of Western civilization or modern society with a model of market institutional change. However, the technical school could not explain the absence of technical innovation in human history and the decline of France during the Industrial Revolution. Also, the model of market institutional change failed to interpret the delayed development of the market system in traditional society. And more importantly, the rise and fall of agricultural civilizations in the East, as a social structure that prevailed for thousands of years in human history, is still a puzzle and even an exception in new institutional economic models, not to mention the confused relationship between democracy and economic growth in developed economies.

The theory of property rights protection once had an important influence on the development of modern economics and policy decision-making in developing areas. But it is not a convincing explanation of the British Industrial Revolution. This is because not all cases where private property rights became institutionalized necessarily led to the success of the Industrial Revolution. The Netherlands was the first modern economy. But it did not

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5 D.C. North, *Structure and Change in Economic History.*

6 N.F.R. Crafts, "Industrial Revolution in England and France: Some Thoughts on the Question, Why was England First?"


8 Song Bingtao and Zhang Xin, "A Theory of the Efficiency of the Public Economy."


10 Mancur Olson, *Power and Prosperity: Outgrowing Communist and Capitalist Dictatorships.*

11 Jan De Vries and Ad van der Woude, *The First Modern Economy: Success, Failure and Perseverance of the Dutch Economy, 1500-1815.*
enjoy the same success as England at the time. So, the British Industrial Revolution, as the impetus for the beginning of modern civilization, is a real puzzle, even in Europe.

With regard to this puzzle, although economists always attempt to attribute Britain's success to technological change and the institutionalization of property rights, political scholars assert that it was, at first, due to its public economic institutions, which were an embodiment of its participation and subsequent victory in war.

In fact, in the early 1930s, as a response to the crisis of the market economy, many scholars noticed the role of non-market economic activity in institutional change, and stressed that non-transactional cooperation is a necessary and rational choice in these types of human economic activities. It has even been argued that the collective economy has been a more widespread phenomenon than the market economy throughout human history. For example, Hicks clearly pointed out that the market economy was neither the only nor the earliest economic system in human history. Hicks emphasized that, as a typical non-market economic system, both the habit economy (no formal institutions, but ethical norms) and the order economy (command economy), were prominent in the early stages of human history, and that they contributed to despotism as a type of revolutionary institutional change. He even argued that the Chinese bureaucracy, in particular, stands for the zenith of traditional civilization.

At the same time, historians showed their interest in the process of the evolution of human civilization. Their researches noted that in the development of human society, social organizations, as public economic institutions, determined the direction of civilization and supplied the sources of improvements in economic efficiency. Moreover, Braudel and Schumpeter stressed the public economy aspect of a civilization. In a word, many historians stress that the public economy occurred much earlier than either the private or the market economy.

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12 Joel Mokyr, "The Industrial Revolution and the Netherlands: Why Did It Not Happen?"
13 Song Bingtao and Zhang Xin, "A Theory of the Efficiency of the Public Economy."
15 Scott Gordon, Controlling the State: Constitutionalism from Ancient Athens to Today.
17 John R. Commons, Institutional Economics: Its Place in Political Economy (vol. 2).
18 John Hicks, A Theory of Economic History.
21 L.H. Morgan, Ancient Society; Roman Herzog, Ancient States: The Origins and Forms of Governance; Chen, Chun, An Inquiry into the Source of Civilization and the Early State: A Comparison of Theories, Methods and Research between Chinese and Foreign Scholars; David, Christian, Maps of
Nevertheless, a theory of public economic institutional change that focuses on the laws of public economic activities has not yet been constructed. The manner in which a market economic system derives from a non-market one and what drives civilizations to develop and evolve are also mysteries. Public finance, which concerns public economic activities, and institutional economics have not yet found a place in mainstream economics, nor has an independent paradigm been established for them.22 Fortunately, due to the influence of Epstein, Bonney, Olson, Hartwell, Pollard and Commons, the concepts of coercive institutional change and state formation as a process of economic revolution have been analyzed in terms of economics, though mostly in the terms of the fiscal system.23 This paper is an extension of those efforts in the study of public economics.

In this paper, we attempt to contribute an interpretation of the origin and evolution of human civilizations in terms of economics and the efficiencies inherent in the improvement of public economic institutions. Our research differs from previous works in three respects. First, we expand the investigation objectives from the industrial revolution to the evolution of civilization, which includes a variety of human activities; secondly, we expand the model of incentive institutional change in the NIE to discuss coercive institutional change or the structural change of polities; third, but not less important, we adhere to analyzing the logic and reason for human economic activities in the early stages of the evolution of civilization, using efficiency principles, and try to reduce the confusion caused by combining these political, economic, and social principles in the discussion of political organizations. Our conclusion shows that the demand structure of public goods, which relies heavily on its historic and geographic politics, determines the institutional change of the public economy in the birth of a new civilization—the modern industrial civilization.

II. The Economic Nature of the Evolution of Human Civilization

Just like historians said,, in essence, the history of human beings is a history of civilization from its very beginning. However, because of the effects of the Cold War and ideological competition, most contemporary scholars consider that only the modern civilization of the UK and the US is a real civilization, and that the Greek civilization marks the origin

_Times An Introduction to Big History._

22 James M. Buchanan, _The Demand and Supply of Public Goods._

of civilization.\textsuperscript{24} According to some scholars, civilization is only defined by a democratic polity. At the same time, no one attempted to explain why both democratic Athens and the democratic Roman Republic transformed into despotical polities. Some simply attributed this to the degeneration of humanity and the backwardness of history. Only the Roman historian Cicero appreciated this “going backwards,” and explicitly pointed out the trend in ancient Athens and ancient Rome of democratic polities being replaced by despotical ones.\textsuperscript{25} It is clear that even Athens and Rome had established democratic polities, but they were not recognized as civilizations at that time.\textsuperscript{26}

With this in mind, the question then becomes “what is a real civilization?” Is the despotical polity, which is almost universally hated, also a civilization?

Indeed, the term “civilization” began with a comparison between cultures and polities in the 19th century, a comparison based on technological determinism and ideological competition, especially when drawing a comparison between the West and the rest of the world. The nineteenth century English scholar, Tylor, said in his classical definition that civilization or culture is a complex social system that includes knowledge, beliefs, the arts, morality, laws, and habits. Not only is knowledge or science not ranked first here, but civilization is a term that can be replaced by culture.

This classical definition, and its confusion between civilization and culture, has had an important influence on scholars. Many Chinese scholars\textsuperscript{27} not only deem the failure of China in the 19\textsuperscript{th} century to be the consequence of backward science and technology,\textsuperscript{28} but always focus on the differences in cultures when they make a comparison between China and the West.\textsuperscript{29} Even though the frustrated mood of the Chinese since the mid-19\textsuperscript{th} century comes from the country’s failure in war and not from a comparison between cultures, Chinese scholars perceived the disadvantages of traditional culture as the origin of China’s failure in early modern times, and based this assumption on the advance of a Western culture that had its origins in Ancient Greek times and the religious reform that sparked the Reformation. This confusion leads us to misunderstand the process of modern transformation, and misleads us and causes us to deviate from the discussion of the nature of a civilization.

\textsuperscript{24} Scott Gordon, \textit{Controlling the State: Constitutionalism from Ancient Athens to Today}; John Hobson, \textit{The Eastern Origins of Western Civilization}.

\textsuperscript{25} L.H. Morgan, \textit{Ancient Society}.

\textsuperscript{26} In fact, it is very late to romanticize the Athenian polity. Even in the West, up to the mid-18th century, democracy was seen as negative and, in the case of Athens, was usually discussed in terms of its defects. In contrast, until that time, the despotical polity was viewed as being an excellent model to follow, and both ancient Athens and Rome looked enviously on the East’s despotic empire as a civilized society (Frederic Delouche and Jacques Aldebert, \textit{The History of Europe}).

\textsuperscript{27} Zhao Lin, \textit{Leaving the Wild: The Evolution of Human Civilization}.

\textsuperscript{28} Although political systems were frequently discussed in China, as the first precursor to productivity, the view that science and technology are the keys to international competition has never changed in the minds of Chinese elites.

\textsuperscript{29} Zhao Lin, \textit{Leaving the Wild: The Evolution of Human Civilization}. 
Indeed, few scholars have investigated the process of evolution from the traditional agricultural civilization to modern civilization. On the contrary, most make a horizontal comparison between the two civilizations and base this on their brand of democratic polity. Further, there are too many academic criticisms of traditional civilization, but few enquiries into the economic rational and causes of the success of the traditional civilization in ancient times.

Such an academic tradition not only affects our view of the nature of a civilization, it also misleads efforts at modern transformation in most developing countries, so that when Western politicians try to introduce modern civilization to Eastern countries, they choose to introduce Western culture and the democratic polity of the West. However, the establishment of a democratic polity that results in the destruction of local cultures has not resulted in a successful “catching up” by underdeveloped countries. Consequently, the role of democracy in economic development has been placed in doubt.

In view of the possibility of the misunderstanding that may result from confusing culture with civilization, many scholars have tried to make a distinction. The German sociologist, A.R. Buss, once defined culture as a system by which people control nature; he then defined civilization as a system by which people control themselves.

Based on this distinction, most historians arrived at a consensus on the nature of civilization. They argued that a civilization means a stage of society in which states or formal political organizations appear. Sometimes the standard of technology and culture was mentioned, but only the political structure of the state, as a unit of public goods provision, could be deemed to be the symbol of civilization. Maybe it is not a coincidence that many economic historians have recently focused on the rise of the modern civilization in the West, and turned their attention to the process of the formation of the nation state.

In view of this, we define civilization as a public economic system in which the division of labor has been achieved and specialization between the private and the public economy occurs. In fact, public economic systems change over time, but their role never changes in terms of being the symbol of the evolution of human civilization. Whatever the polity of the ancient state or the modern nation state, civilizations have always been linked with a public economic system, not a culture.

As is well known, the ancient civilizations that have gained the most recognition are those that succeeded in establishing and maintaining competitive public economic systems. Indeed,

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30 Ibid., p. 288.
31 Kong Tao, Economic Growth and Political Institutions: Theories and Empirics; Daron Acemoglu and James A. Robinson, “Persistence of Power, Elites, and Institutions.”
32 Zhao Lin, Leaving the Wild: The Evolution of Human Civilization, p. 5.
an efficient public economic system has been the key to their competitiveness. This efficiency
determined whether a national group could survive, develop into a civilized country, and be
recorded in history. Just on this measurement alone, humans have concluded, through repeated
experiments, that the early democratic polity that derived from tribal times was less efficient
than the later despotical polity, and that the collective power of despotism was the key factor
in the development of the first human civilization.34 For the same reason, the ancient Greeks
and Romans in the West, and the ancient Mongols and Mandarins in the East, made efforts to
reform the tribal democratic polities of their peoples, to establish a collective despotical polity,
and to achieve a civilizational transformation. Indeed, the history of human civilizations is
the history of an investigation into the public economic system. On the other hand, because
the political system was the core of the public economic system, the history of humanity was
recorded as “the history of the ruling kings” and “the history of wars,” which was criticized in
the Annals.35 Tilly and others36 use historic data to argue that wars are the major activities of
states. In fact, most famous works of history, such as Appian’s Roman History, Thucydides’
History of the Peloponnesian War, and Herodotus’s Historiae, contain records of kings and
wars. This tradition began from events recounted from memory by early tribes and clans.37

All in all, the seed of civilization is the public economic system; and the leading positions
of the UK and the US, in modern civilization, is the outcome of changes in the public
economic institution. Similarly, the dominance of these two nations on the world stage is the
result of the transformation of modern civilization and not the cause of modern civilization’s
evolution. The modern civilization, or new public economic system, was victorious over the
traditional agricultural civilization, which operated under the old public economic system.
This transformation has permeated all corners of the world. However, the success of modern
civilization does not mean the success of the civilizations of Greece and Rome, nor does it

34 The earliest scholars to consciously investigate the efficiency issues of the public economy were
the ancient Egyptians, who noted that this system even embodied the choice of ruling method. The
18th dynasty pharaoh, Akhenaten, reconsidered the Chaos that reigned from the 13th to 17th dynasties,
subsequent to the assault by Hyksos, and tried to reform Egypt’s system of polytheism in order to unite
his people under a single god. Akhenaten argued that embracing monotheism would unite Egyptians
into a more powerful force with which to fight the enemy. However, due to the opposition of the
traditional groups and the fact that Egypt was experiencing a time of peace, where its safe geopolitics
meant its needs were non-urgent, his efforts to establish a religion of one god failed. But, this attempt
was followed by Moses, and modern religions were born. These provided a new system under which
societies entered into conflict with one another.
35 See F. Braudel, A History of Civilizations.
36 Charles Tilly, Coercion, Capital and European States: 990-1992; Philip T. Hoffman, “Prices, the
Military Revolution, and Western Europe’s Comparative Advantage in Violence”; John Brewer, The
Sinews of Power: War, Money and the English State, 1688-1783; Victoria Tin-bor Hui, War and State
Formation in Ancient China and Early Modern Europe; Randall Collins, “Long-term Social Change and
the Territorial Power of States.”
37 Chen Chun, Inquiry into the Source of Civilization and the Early State: Comparison of Theories,
Methods and Research between Chinese and Foreign Scholars.
point to the victory of the West’s Christian culture.

Therefore, we argue that even though the traditional agricultural civilization failed to compete with the modern one, it is still one kind of civilization. Further, it was once the best system among those humans attempted and a universal civilization that addressed the problems humanity faced in earlier times. Of course, there are no cultural conflicts, nor is there a co-existence of competing civilizations. What remains is just the way to transform an old civilization into a new modern one. In modern civilization, the real conflict between countries is the conflict over benefits and not a conflict of cultures or civilizations. In this case, institutional change in the public economy becomes a topic in economics.

III. A Framework of Analysis: A Model of Institutional Change in the Public Economy

Before constructing an economic model to explain the process of the evolution of civilization, it is necessary to discuss the human economic objectives in this process of the birth and transformation of a civilization. Agents’ different objectives will determine their different choices in economic activities. The failure of the NIE and neo-classical economics in explaining the process of the evolution of civilization derives from their misunderstanding of the maximization of income in markets as being the aim of all human economic activity. In fact, before the era in which the modernization of civilization became humanity’s main focus, the market economy was not central to human economic activity, nor was the maximization of income the main human objective or value. Rather, ensuring the survival of the tribe within a system of collectivism was almost the only objective or major concern of all society, from the elites to the lowest members.

It is well known that human society’s progress in economic efficiency comes from the division of labor. However, traditional technological determinism only emphasized the division of labor between farming and husbandry and between farming and handicrafts in the process of production, but overlooked the more significant and far-reaching social division of labor between private and public economic activity. In fact, following the logic of history, the first division of labor occurred with the appearance of specialized public economic activity, that is, the separation of public economic activities from production activities. This new paradigm became the economic basis of the development of social organizations.

In effect, scholarly investigation shows that in the early stage of pre-civilization, economic activities were mainly public, and that property rights could neither be defined nor outlined in a tribal system where there was no division of labor between the public and

38 Philip T. Hoffman, “Prices, the Military Revolution, and Western Europe’s Comparative Advantage in Violence.”
39 Du Zhengsheng, Early Household Registration: The Formation of Traditional Political and Social Structures; Ancient Society and States.
40 L.H. Morgan, Ancient Society; Du Zhengsheng, Ancient Society and States.
the private economy, and where economic activities were collective. The earliest civilization was one in which the division of labor between the public and private economy occurred, and where only a few elites were withdrawn from the production process in order to become specialized in providing public goods and in constructing social organizations.

In the process of institutional change of the public economy, improvements in economic efficiency were embodied in either cost reductions in the supply of public goods or in an increase in the types and quantities of public goods produced. The improvements in efficiency that accrued to the division of labor resulted in the birth of the social organizations, led to the agricultural revolution that began 10,000 years ago, and gave rise to the emergence of the despotic states and agricultural civilizations of 5,000 years ago. Population growth and the spread of agricultural civilizations promoted the rapid development of private economic activity, and caused the frequent commercial booms that began 1,000 years ago in many parts of Asia and Europe. However, the new public economy system did not appear until 18th-century Britain, when a backward and primitive legal polity gave way to a market economy and public finance systems that resulted in the birth of a modern civilization. For this reason, in discussing the process of civilization evolution, scholars have neglected the significance of the budgetary revolution as the key basis of the modern civilization. This is due to the cooperation dilemma and to the misunderstanding of the externality and monopoly characteristics of the budgetary process.  

We argue that the original efficiency improvement of public economic activities came from the social division of labor between private and public economic activities, but the increase in transaction costs that derived from this division brought about an obstacle that made it almost impossible to further improve the efficiency of the public economy, so that the second human civilization—modern industrial civilization—needed 10,000 years to attempt to develop and to enquire into the methods of development.

Of course, the difficulty of introducing institutional change into the public economy is not only because of the transaction costs, but also because of the constraints of the inert demand structure of public goods. In view of the absolute demand for survival conditions, which consists mainly of the component of traditional public goods and relies on geopolitics and war technology, it would be impossible that most of the populace would support such a change in the public economy, especially when the new system would likely overlook the survival conditions which concerned, at most, only the weaker groups. But a public finance system that can result in market economic growth is just this kind of system, therefore, it not only experienced a long and difficult transition, but it was still doubted by its followers, even when it had succeeded in Britain.

Nevertheless, we believe that economics should explain all choices made by human beings. To confirm this, we pose for confirmation four hypotheses about civilization’s evolution, or

institutional change in the public economy, as follows:

First, the institutional structure of the public economy is determined by the demand structure. In an agricultural civilization, because the major demand of most people for public goods was the survival of the race or tribe, the revealing and coordinating of public goods demand are not the key factors, and putting measures in place to ensure that demand was matched by the provision of public goods, after the transactions were actually carried out, was also not very important. Rather, the improvement in the efficiency of the public economy mainly depended on the ability to enforce the provision of public goods, which was a function of the rulers' coercion and monopoly.

Second, before the primary or first demands for public goods is completely satisfied, the new structure of public goods demand and the new system are unlikely to be accepted as the goals of humans in a civilized society. Moreover, the rulers' coercion and monopoly power also block attempts at a new public economic system, so there is little probability that an institutional change in the public economy will take place. As a result, ensuring group survival, was the main objective of public economic activities in the pre-modern economic system.

Third, if the objective of the public economy and the structure of public goods demand change because of some exogenous factors, a new demand for public goods appears, and these can even become a major part of the demand structure. Changes such as the conditions of trade in markets and the institutional change of the public economy become a possible choice for the elites in civilized societies.

Fourth, in those areas with poor agricultural resources, but good water transportation, for example, the pursuit of group survival leads to a great deal of effort in other economic activities, such as those heavily dependent on commerce and profit earnings. As such, mercantilism becomes the principal economic activity and the focus of state policy in these areas. Even with continued stress on the pursuit of group survival, the demand for public goods begins to change because of the change in the means of living. Mercantilism changes state policy and the demand structure of public goods. As a result, a new experiment in public economic institutions becomes possible.

It is only in the last scenario that the demand structure of public goods changes. The efficiency from improvements in the public economy will depend on the ability of suppliers to enforce provisions for efficiency, the ability of demanders to coordinate preferences among themselves, the ability of suppliers and demanders to negotiate, and the ability of demanders to supervise enforcement of negotiated agreements.

For this reason, some very strict prerequisites must be put in place for the conditions that give rise to significant improvement in the efficiency of the public economy and industrial civilization. These prerequisites are the appearance of efficient public finance systems, which include mechanisms to show and to coordinate the preferences of demanders, the existence of a negotiation mechanism between demanders and suppliers, a coercive mechanism for rulers to enforce provisions, and a taxpayers' supervision mechanism to ensure the enforcement
of agreements after bargaining. Among these mechanisms, the last two are both the keys to institutional change and the origin of the paradox, as they are simply two opposites. Authorizing monopolistic power for the suppliers deprives the demanders of the ability to negotiate and supervise the provision of public goods. As such, it will be impossible to significantly improve the efficiency of the public economy and the people will oppose the new system. On the other hand, without monopolistic coercion, the ability of suppliers to enforce the provision of public goods will be greatly reduced; improvements in the efficiency of the public economy will also not be attained, and institutional change in the public economy becomes impossible. This paradox not only blocks improvements in the efficiency and institutional change of the public economy, but also influences the development of public economics.

Because of this paradox, even with the parliamentary system, which has historically been one of the most efficient mechanisms of the public economy since the very early ages, not all societies with parliaments achieved success in institutional change in the public economy under similar pressures of the new demand structure of public goods. In section V, we discuss the conditions of the success of the new public finance systems as the key to modern civilization, and then provide a test for the previous hypotheses. First, it is necessary to analyze the conditions that gave rise to the appearance of the first human civilization—agricultural civilization.

IV. An Analysis of the Birth and Evolution of Agricultural Civilization

Throughout most of human history, the survival of the tribe or race was the only objective of human economic activity. The revelation of demand preferences for public goods was meaningless and unnecessary, and the mechanism for revealing preferences—the primitive military democracy, inherited from the age of pre-civilization, did not show advantages over the despotic polity in the efficiency of providing public goods. The improvement of the efficiency of the public economy mainly relied on the reduction of transaction costs achieved through the powerful coercion that took place in the process of the enforcement and provision of public goods. In the competition among primitive groups, the despotic polity, based on military coercion, gradually showed a huge advantage over those groups without the ability of collective coercion, and led to the birth of the traditional civilization. On the continent of East Asia, the Qin state conquered all other regimes and replaced democratic or constitutional polities with the despotic system. By reducing the coordination costs of public economic

42 They appeared in the 13th century at least in Poland and England.
43 The Republic of Venice in the 14th century and the Republic of Holland in the 17th century are two typical cases.
45 Du Zhengsheng, Early Household Registration: The Formation of Traditional Political and Social
activity, despotic polities improved the efficiency of enforcement and the provision of public goods. Even so, this did not amount to economic growth by modern standards—per capita GDP. Nevertheless, the goal of race survival was efficiently achieved, as was the survival of a huge population, and many monumental projects, which have become the symbols of human civilization (the Great Wall in China, the Pyramids in Egypt, and so on), were constructed during peaceful times.

Indeed, just as Toynbee said, all civilizations come from efforts to deal with outside challenges. But the greatest challenge came from the nomadic tribes, which threatened race survival and resulted in the appearance of great despotic empires based on military coercion and bureaucratic polity. Not surprisingly, the birth of the European civilization was also the outcome of the challenges that arose from the attacks of the barbarous Germans. Their aggression resulted in a demand for defense that drove Europe toward the birth and change of its public economic institutions. It is simply in these terms that we can say that Germanic aggression was the first forceful push toward European civilization. Further, Braudel is correct in saying that this aggression benefited Europe in the long term.

Nevertheless, the aggression of the Germanic peoples did not lead to the success of despotic civilization in Western Europe. This is because other conditions and environments are required for the appearance of the despotic empire.

1. An institutional condition of the agricultural civilization: military coercion

Although there is not a complete consensus among anthropologists and archeologists, most agree at that humans went out of Africa, and through Egypt and the Middle East, as groups, about 800,000 years ago. These groups represented units of a public economy. In a typical primitive group, a democratic mechanism based on the ecclesia and consensus was a usual decision-making mechanism. All group members took part in and oversaw public economic activities and there was no division of labor. In the process of moving out of Africa, a few groups were lucky and found an abundance of natural resources and their populations rapidly grew. However, with the increase in the population, the cost of making decisions based on a democratic mechanism and consensus increased so fast that a group whose population exceeded 100 could not be maintained as an efficient unit of public economy for long. As a result, before the birth of civilization when the population grew exponentially, the continuous separation of big groups became a way of maintaining the efficiency of the public economy. This Olson hypothesis has been confirmed not only by Morgan’s investigation in North

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America, but also by recent developments in archeology.\footnote{L.H. Morgan, Ancient Society; Chen Chun, Inquiry into the Source of Civilization and the Early State: Comparison of Theories, Methods and Research between Chinese and Foreign Scholars.}

The continuous separation of big groups brought about a further growth in the population, because the cost of making decisions was kept at a very low level. This advanced system of pre-civilized society spread to most human societies through communication among groups and enquiries on each side. Due to the natural limitations the population faced at the time, population growth then arrived at its first plateau. Sooner or later, the limitations of space and natural resources set constraints on the process of separation of big groups. This is because the newly separated groups could not find enough new space and resources for survival, and because growth in group size was gradually attained subsequent to separation. As a result of the expansion of group size, groups' coordination costs quickly grew. The effectiveness and efficiency of a decision-making mechanism based on democratic consensus met with great challenges, and the task of reforming the decision-making mechanism was first assumed by the elites. On the other hand, the reduction of leisure resources and space also made competition and fighting among groups unavoidable. This also caused demands for improvements in the efficiency of the public economy or the decision-making process. When faced with these similar challenges, in the early stages of the development of human society, different groups made different attempts at adjustment. However, only those people who chose the correct direction for reform, and discovered appropriate environments in which to live entered a civilized society—agricultural civilization. Some perished at the hands of other groups, still others struggled for survival amid the chaos of competition.

Historians have observed that the tribes that won the competition for survival were those groups that began the process of civilization first by establishing the division of labor between the private and public economies.\footnote{Du Zhengsheng, Ancient Society and States. Victoria Tin-bor Hui, War and State Formation in Ancient China and Early Modern Europe. Li Feng, Death of the Western Zhou Dynasty: Geographical and Political Crises in the Early States of China.} These races put limitations on member participation in decision-making in order to ensure the efficiency of coordinating this process. It was this limitation that lead to the appearance of specialization and the division of labor in the public economy. Of course, the first group of “governmental officials” who withdrew from production in order to conduct internal coordination and external wars, consisted of only a few tribal leaders and shamans. However, it was this kind of separation and division of labor between production and public economy activities that resulted in a substantial improvement in survival efficiencies. The sociologist Mann realized that the history of humanity, so far, can be identified as a history of the specialized division of labor and social cooperation. From the hunting of early times to the struggle for survival in later times, division of labor and temporary cooperation for common survival were very common human mechanisms.\footnote{Edward O. Wilson, The Social Conquest of Earth. Samuel Bowles and Herbert Gintis. “Walrasian Economics in Retrospect”; “Social Capital and Community Governance”; “The Evolution of Strong}
But the specialized division of labor necessarily leads to the separation of demanders and suppliers of public goods, which, together with the externality of public goods, poses a huge problem for the provision of these goods. To solve this problem, the appearance of coercive power becomes a clear and painful prerequisite for the birth of a civilization. This is different from the point of view of the well-known process of voluntary trade in the market in that there is no chance of conducting a specialized division of labor in a public economy characterized by the separation of time and space, without the guarantee of a coercive sovereignty. Therefore, the existence of powerful coercion becomes a common feature of the birth of all civilized societies. Of course, because that coercion brings a lot of suffering to the ruled, how and when to decide as a ruler to exercise this coercion is the key to the process of civilizational evolution.

How to choose the conductor of coercion so as to ensure the willingness of the ruled to supply enough food and other necessities to “government officials,” is not a simple problem. For thousands of years, humans have never ceased in their attempts at and efforts in coercion. Although coercion based on military force seems the most simple and efficient way, its instability discounts its utility; therefore, an arrangement of “cheating” based on gods outside of human society was a popular choice. As Mann said, even though the “details are not known to us, the temple emerges as the first state of history.”52 The priests conduct the task of communicating with the gods, but their real main task is to conduct the management and coordination of human society. To do this, they rely on keeping members of this society in awe of the gods. In fact, most of the earliest traces of human civilizations found today by archeologists are temples or other monuments used to communicate with the gods: the discoveries of archeologists in the areas around the Nile, the Yellow River, and the Two Rivers show that humans invested in structures similar to temples and used them to offer sacrifices to the gods, that these structures always appeared together with villages, meaning they were built at the same time, and that they became the first object of investment by humans.53 Some examples are the Egyptian pyramids, the English Stonehenge, the Greek temple (Fane), and the Chinese copper vessels. The only aim of all these products of “super-age” technological development, found among early traces of human civilizations, was to maintain humans’ reverence for the gods and the rulers, and to enforce the division of labor in the public economy.

Mann states that, “these temple states” based on the powers of the gods, “do not seem particularly coercive.”54 As a successful case, in the following stage, the Shang and Zhou

Reciprocity: Cooperation in Heterogeneous Population.”

Dynasties in East Asia began to transform into a system of more efficient institutional coercion. Here, the monopoly of the nobles over the military forces gradually replaced the monopoly of the priests over communication with the gods. It was then that the first institutional change in the public economy appeared. At the same time, conquerors became the rulers that solved the problem of how to choose successive rulers and arrange the division of labor within groups. Consequently, successful military leaders in wars chosen, institutionally, as rulers to conduct public economic activities became a common phenomenon within civilized societies. Of course, the transformation from ruling by military force to ruling by institutional coercion was a long process. Just as the transmutation of the Roman Republic based on military victories shows, the distribution of the spoils of war strengthened the power and coercive ability of military leaders. This temporary power was gradually consolidated into permanent institutions, and then into the political state; social classes in society appeared, and civilization was finally born.

But how did military coercion develop into the absolutist empire? Why were the ruled willing to be forced to follow the leader's dictums concerning social and political arrangements? Why did some coercion bring about splendid and sustainable civilizations, but others bring about mere sparks of civilizations? The theory of social caging, put forward by Mann, contributes a reasonable answer.

2. The institutional conditions of agricultural civilization development: social caging

In his famous work *The Sources of Social Power*, Mann pointed out that, in the early stage of human history, humans tried coercive political organizations to improve the efficiency of the public economy. But these were tribal groups; all cooperation was based on voluntary agreement, and the coercive form of state government never materialized. Mann stressed that, "the conditions under which, on a very few occasions, civilization did develop, are those that made avoidance no longer possible." Because the natural environment formed a cage which makes it impossible for those who lost wars to escape, rule by despotic collectivism was maintained. This caused the coercive power of the state to be gradually accepted and institutionalized under a mode of political organization. Finally, agricultural civilization succeeded. So it was the protection of natural constraints that ensured the stability of central collectivized rule, over thousands of years, based on the caging effect. This even brought about some establishment of absolutism in East Asia, South Asia, and the Nile region, and made the imperial polity very popular for thousands of years.

Mann stressed that the despotic polity could not be maintained for long without the caging effect of the geographic environment. Also, replacing the non-professional army with

56 Scott Gordon, *Controlling the State: Constitutionalism from Ancient Athens to Today*, p. 199.
a standing army was a prerequisite to the appearance of despotism. In Central America, which did not have the limitations of social caging, the Mayan civilization declined to a very low level of development and never reached the level of institutional coercion, not to say empire, of which modern people remain in awe.

On the contrast, all six great ancient civilizations (Roman, Greece, Egyptian, the Middle East, Indus, and the Chinese civilization) developed with the help of social caging, based on the natural environment, known as the natural block. The sustainability of the natural block that surrounds a civilization determines the consolidation of social caging and the evolution of the civilization. This is because caging made it impossible for the loser in the struggle for survival to find a new space to live. Consequently, their only choices were to either obey or disappear. Either way, the despotic polity reigned for a long time. Among these six civilizations, the major natural blocks of the Roman Empire, Greece, and the Middle East were the Mediterranean and forests, which disappeared when the technologies of iron and shipping improved, making it very difficult for these regions to maintain their despotic polities.

In East Asia, in particular, the Pacific Ocean, the Himalayan Mountains, and the Gobi Desert formed the most solid representation of natural caging. The Yellow River civilization could independently develop an efficient system of public economy based on the system of bureaucracy and absolutism, where social caging ensured it was never disrupted.

3. **The institutional condition of the continuance of agricultural civilization: the bureaucratic system of civil servants**

Indeed, no matter how powerful the collective despotism that derived from military coercion and social caging, and no matter how large the wealth accumulated by agricultural civilization, most agricultural civilizations did not succeed in the further development of a stable and sustainable public economic institution. Most rulers of agricultural civilizations simply focused their efforts on maintaining power. Few cared for the consolidation of power and the efficiencies that come from the enforcement of the public economy. Consequently, even though humanity developed different types of civilizations in different eras and regions, most of these civilizations could not be sustained up to modern times under the conditions of internal conflict among groups and attack from the outside. That human civilization has had to repeatedly rebuild on the ruins of its ancestors has placed huge limitations on its development and evolution, and made it impossible to use ancient civilizations or empires as catapults to the construction of the modern institutions of an industrial civilization. Only the Yellow River civilization developed to establish an efficient and stable public economic system based on its unique geopolitics and the innovative civil service system. It was not only that the theological ruling system was replaced by a stable secular polity 3000 years ago; the secular polity also tried many different forms of government and ruling structures, from aristocrat feudalism to specialized agents through the social division of labor, and from military coercion to civil management. The invention of the imperial examination system, in particular, not only solved the contradiction between the internal division of labor and collectivized power which had
perplexed humans for thousands of years, it also achieved the unification of specialized agents and the institutional bureaucratic system and made it possible to peacefully move ruling power and management inside an institutional framework that maintained order within the enforcing groups, which then pushed the efficiency of the public economy of agricultural civilization up to the maximum level possible. Traditional agricultural civilization, as a survival economy, reached its zenith in China. With a relatively low supply of natural resources, China fed the world's largest population, which is the major index of pre-modern economic growth. China's advantage in feeding its population meant that Ming-Qing China became the world's most advanced economy and one that pre-modern European economies aimed to catch up to. The system of official examinations supplied a model for the reform of government in Britain after the Industrial Revolution.

Naturally, the success of agricultural civilization resulted in a boom in the private economy and the development of the market economy in Song China. The corresponding commercial boom caused the focus to turn toward the development of the private economy. This set off the decline of the public economy and consequent demise of traditional agricultural civilization. Without the conditions established under a system of public finance, the commercial boom of Song China compromised the state's ability to defend itself from outside attacks. This inability to provide defense not only made it unavoidable that agricultural civilization declined just when it had peaked, but also showed the urgency of establishing a new kind of public economic system. The birth of the public finance system embodied in British industrial civilization was precisely the result of new attempts to solve the old problem.

V. An Analysis of the Birth and Evolution of Industrial Civilization

1. The decline of traditional civilization from the development of the market economy

The development of agricultural civilization made economic surpluses possible; this even took place in civilized societies that only pursued the survival of their members. This surplus not only gave rise to magnificent cultures and skills in every area, but also encouraged the system of exchange stressed by Adam Smith, which was the beginning of the market economy. In fact, except for those regions where there is insufficient archeological material to confirm this, all other civilizations in China, the Middle East, and Greece began their own attempts at the development of a market economy. The appearance of a system of property rights give us more confidence that the market economy is an ancient phenomenon. However, this commercial boom weakened the institutional basis of

60 Frank Hole, "Investigating the Origins of Mesopotamian Civilization."
agricultural civilization.

The commercial boom influenced the public economic institutions of traditional civilizations in two ways: first, the principles of individualism and profit maximization in market exchange activities greatly weakened or disturbed the principles of collectivism on which the traditional public economy was based. Second, as the outcome of the first factor, the accumulation of private wealth based on the development of the market economy damaged the financial capacity of the public economy, especially in its defense capability. Consequently, traditional civilization greatly declined due to its inability to protect its people and survive when faced with attack from the northern pastoral area or overseas.

New transportation technology united the world in one competitive system. The traditional agricultural civilizations had to face a direct challenge and competition from a modern industrial civilization based on a more efficient public finance system. The consequent relative decline of agricultural civilization in its “quarrel” with modern civilization was unavoidable, and an institutional change in the public economy that corresponded with this transformation was foreseen for all human groups or societies.

The decline of traditional civilization, however, does not lead naturally to the birth of modern industrial civilization. Although commercial booms had been a well-known event at least 3000 years ago, and had become a high-probability event 1000 years ago, humanity did not enjoy modern civilization until the 18th century, when Britain rose in isolated islands outside of the European Continent. So, why the Industrial Revolution in Britain happened became a prolonged hot topic within academia.

2. The system of public finance: a revival of primitive military democracy in modern parliaments

Scholars have differing perspectives on the birth of the modern industrial civilization. Wallerstein and Braudel thought that the modern civilization that occurred in Europe could not have evolved from within traditional agricultural civilization, but rather depended on an outside force. The exogenous driving force, they argued, was the pressure that resulted from the 13th century crisis and the pull that derived from the discovery of the New World in the 15th century. Brenner called the exogenous force *deux ex machina*, and saw class power as the driving force in accordance with the theories developed by Karl Marx. Only Epstein realized that the development mechanism of the modern economy had two components: market economic development and industrial technological development, with the former relying deeply on political centralization. In opposition to popular criticism of the NIE, on the plunder of states, Epstein correctly stressed that the absence and inefficiency of the public economic system in a sovereign state is the major cause of the failure of attempts at modern civilization in many parts of Europe.

Epstein argued that the transformation from an agricultural to modern civilization, based

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62 About the review of the works on causes of modern civilization, see S.R. Epstein, pp. 2-4, 38-40.
on the market economy, depended on either the establishment of absolute private property rights or the existence of absolute public sovereignty. In other words, the success of modern civilization needs a combination of the property rights of the individual and the sovereignty of the independent state. The market system in autonomous cities in Europe provided property rights to individuals, while the despotic empires in the East achieved the centralization of sovereignty. Only Britain constructed a public finance system based on both property rights and sovereignty, and drove the birth of the modern industrial civilization. But why was Britain the only success in the institutional change of the public economy?

The delayed development of nation states and the disadvantage of agriculture partly answer this question. In fact, in the late Middle Ages, when the crisis in Europe appeared as outside pressure from the Muslim world and an internal struggle that derived from the divisions in Christendom over corruption in the Catholic Church (and the ensuing Reformation) and the devastation caused by the Black Plague, the real challenge was the decline of the Roman Empire and the collapse of the public economic system that resulted from the aggression of Germanic tribes. This disorder caused a flurry of attempts at new public economic institutions. As this transformation progressed, feudalism began to retreat, and humanism, religious reform, and nationalism (socialism) took center stage. Britain's success was the outcome of these continuing efforts, and the result of the balance and compromise established among the various forces. The equilibrium of these forces resulted in a public finance system embodied within the constitution; it was at this point that different factors combined to drive the breakout of the British Industrial Revolution. By virtue of the advantages of its public finance system in terms of efficiency, the industrial civilization established in Britain held an unshakeable leading position, while the traditional agricultural civilization has prevailed in the rest of the world since the 18th century.64 But it needs be clarified that the advantage of modern civilization is embodied in its ability in war, as part of the public finance system, and not in the advantages of the industrial market economy or the ability of Christians to exert influence over the population.

Indeed, after the collapse of the Roman Empire, various traces of public economic institutions appeared in Europe where social caging was no longer a factor. Traditional agricultural civilization prevailed in France and Spain, and the autonomous city states found opportunities to become established in Italy, Holland, and the Germanic regions. In remote areas, primitive, military democracy even continued to survive in England, Hungary, and Poland. Fortunately, the unique characteristics of English geopolitics caused a unique demand structure for public goods, which made it possible to revive the primitive military democratic polity in modern parliaments (factually constitution). Finally, an efficient budgetary and public finance system appeared.

64 Zhao Lin, Leaving the Wild: The Evolution of Human Civilization, pp. 267-268.
Many scholars have noted the significance of English geography. As an island, Britain felt little or no pressure for defense, which was either the only or the main pursuit of most of the rest of the world’s population. English demand for public goods shifted to coordinate with the conflicts of internal groups, so that the English nobles had opportunities to bargain with the monarchs in the process of constructing a new public economic system. Typically, it is necessary to obey monarchs in order to ensure the survival of a group or for defense as a short-term objective, and the long-term goal was naturally given up in return. However, the English did not need to remain submissive before their kings in return for security and defense. Rather, it was the combination of the weak demand for defense and the strong demand for a market (mercantilist) economy that determined the direct transformation of Britain from a primitive military democracy to one with a modern public finance system, whereupon modern industrial civilization finally succeeded.

On the contrary, if there had been pressure for defense against outside attacks, a people that insisted on curbing government control would have incurred great risks to their own survival. Holland, from 1600 to 1700, and Poland, from 1300 to 1500, are typical cases of failure because of the success of their respective parliaments in curbing their governments (kings). However, when a population does not rein in its government, it forgoes the likelihood of developing a bargaining mechanism. The result is a system of monarchical despotism, such as those in the France and Spain of the 16th and 17th centuries. As a symbol of modern civilization, public finance based on the bargaining mechanism could form only under conditions where a regime’s primitive military democracy was still in place, but the development of the market economy had already begun, so that outside competition or an aggressor could not threaten the survival of the population. Luckily, all of these conditions existed in 17th and 18th century Britain. The system of market exchange came from the mercantilism provided the necessary model for the innovation of Britain’s public economic institutions; British military democracy and the parliamentary tradition contributed to a framework for public goods exchange for the mercantile class; the commercialized aristocrats began to run a new model of public economic institutions and attained success in a beneficial international geopolitical environment. This all culminated in a budgetary revolution and the appearance of a constitution in 17th century England.

Britain’s success was also due to the coincidence of the English tradition of public goods exchange and the Mercantilist’s principle of market exchange. Because of the juridical practice in England of paying kings and aristocrats for services, the concept of a public goods exchange had become deeply rooted in the minds of the British people, and the persistence of the aristocrats and monarchs in the public finance bargaining system did not give rise to

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the ideological chaos of strong public opposition. As a historical fact, the English kings, like other monarchs, no doubt wanted to control the aristocrats and kick various factions out of the bargaining process. But they failed, because of the tradition of military democracy, paid services in public goods, and a weak preference for defense. Nevertheless, through the frequent truces that took place in Britain during the 1640-1688 revolution, the system of public finance, based on the bargaining mechanism, greatly improved the efficiency of the public economy, and the specialization and division of labor in the public economy permitted Britain to break away from the Malthusian trap. Its backward political system and unique geopolitical environment made possible, through a budgetary revolution, the institutional changes and improvements in the efficiency of the public economy that were needed to succeed. The second form of human civilization, industrial civilization, was finally born after thousands of years of experimentation and effort.

VI. Remarks and Conclusions

In this paper, we discuss the economic nature of civilization in terms of institutional change in the public economy, and analyze the history of the evolution of human civilization based on an extensive model of institutional change. We argue that the evolution of civilization is endogenously driven by institutional changes in the public economy, and that the efficiency improvement of the public economy is determined by a comparison between the benefits that derive from the specialized division of labor and the transaction costs brought by these divisions. With the test of the history of two kinds of civilizations, we draw some conclusions. First, the public economic system is determined by the demand structure of public goods, and the despotic centralized polity in agricultural civilizations was once the most efficient public economy system if the major demands on public goods were simply defense or survival. Second, institutional change in the public economy was determined by a structural change in people’s demand for public goods, and it is hardly possible to try a new institution of public economy before the old demand is satisfied and new demand appears. Third, even if the institutional change of the public economy has begun, due to influences from outside or changes in the demand structure, the success of the new system of public economy still depends on some strict conditions, which include the absence of outside threats to survival, the existence of a primitive military democracy, a tradition of public goods exchange and the development of a market economy. The simultaneous appearance in England of these conditions is a coincidence of time and space, but also the certain outcome of continuing attempts by humanity.

In a word, both the modern transformation of developing countries and the evolution of human civilization are the result of changes in the public economic system. With technological improvements in transportation and communication, traditional agricultural civilization must face challenges and competition from modern industrial civilization. On the other hand, the
great competitive advantage of industrial civilization shows that a public finance system is a more efficient public economic institution than the traditional one; therefore it is a necessary trend of human social development for agricultural civilization to be transformed into modern civilization through the institutional change of the public economy. However, the modern transformation of developing countries is simply an outcome of institutional change, and not due to the nature of Western or Christian culture or a result of Protestantism. Even more, the defect of modern civilization have been revealed by repeated economic crises, which were caused by swings in the public finance mechanism between a democratic and a constitutional mechanism. Therefore, to maintain sustainable economic development in a modern civilization, a balance between the two decision-making systems must be considered. The first is that controlled by big taxpayers through constitutional parliaments to support the conditions of market economic development; the other is that controlled by the masses through democratic elections that support concern for the conditions of survival of the poor.

Notes on Contributor


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