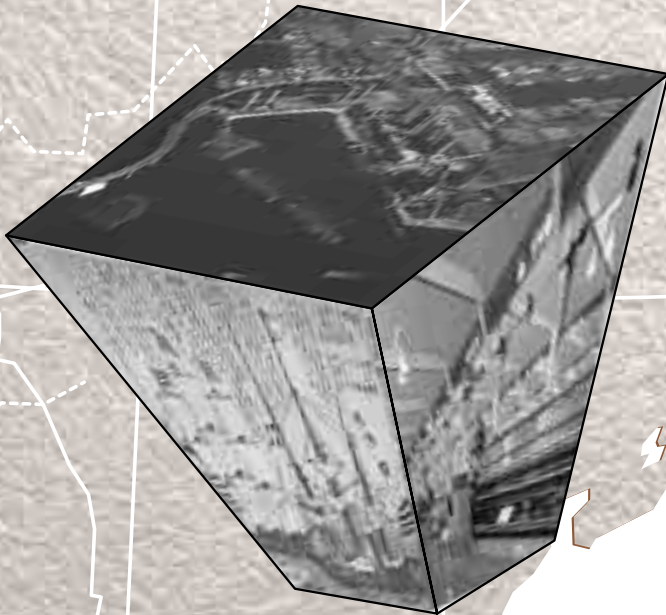


The Economic Development of Japan

The Path Traveled by Japan as a Developing Country

Kenichi Ohno



GRIPS Development Forum



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Translated from Kenichi Ohno, *Tojokoku Nippon no Ayumi: Edo kara Heisei madeno Keizai Hatten* (The Path Traveled by Japan as a Developing Country: Economic Growth from Edo to Heisei), Yuhikaku Publishing Co. Ltd., Tokyo, 2005.

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I would like to thank my students at GRIPS for giving me the opportunity to write this book, and Ms. Azko Hayashida for compiling the English edition.

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Preface to the English Edition

Materials contained in this book were initially made available on the English-language website for a Master's program at the National Graduate Institute for Policy Studies (GRIPS) in Tokyo. They were then translated into Japanese and published in book form for the benefit of Japanese readers in early 2005. However, it soon became clear that the book was very much wanted by non-Japanese readers as well. I was approached by foreign students in Japan and publishers abroad for permission to translate it into other languages including Arabic, Chinese, and Vietnamese. While the Japanese edition can serve as the original, it would be much easier to secure good and fast translation if the book were also available in English. Furthermore, the readership would expand greatly with the publication of an English edition. That is why the book was translated back into English.

This book offers an analytical tour of Japan's socio-economic changes. It is neither a monotonous chronology nor a collection of unrelated academic papers. Instead, it introduces the readers to the most advanced—and sometimes controversial—studies on the modern history of Japan. Internal capability generated by frequent interactions between domestic and external forces is the connecting thread throughout this volume. While the writing style may seem simple and without too much theorization, ideas presented here are the ones that have emerged from long and serious investigation by many researchers. I believe that this is the first book of this kind ever to have been published either in English or in Japanese. Please enjoy.

Tokyo, February 2006

Kenichi Ohno

Foreword to the Japanese Edition

This book contains lectures on the Economic Development of Japan which was delivered in English by the author at the National Graduate Institute for Policy Studies (GRIPS) in Tokyo from 1998 to 2004. The majority of my students were young government officials from developing and transition countries who would return to their duties after the study at GRIPS. Japan is a unique country which rose from a backward agricultural economy in the Far East to the forefront of industrial technology. Although I am not an economic historian, I agreed to teach this course because I was attracted by the intellectual challenge of re-telling the remarkable story of Japan's development not as a past tale reminisced about by the Japanese themselves but as a contemporary message to foreign elites who are struggling to develop their motherlands at this very moment.

I am a practitioner of economic development. I stay in a latecomer country (Vietnam, to be more precise), advise its government on economic policy making, train young people who can replace me in the future, and offer academic inputs to the Japanese government and other donors of that country. The topic of this book, the history of Japan after its global re-integration in the mid-19th century, may seem a little worn-out to Japanese scholars who have already spilled a huge amount of ink on the subject. But I still take it up, in the hope that we might see the road traveled by past Japan in a new light as shed by the standards and common sense of today's developing countries. I wrote this book in Japanese to share my excitement with the Japanese readers.

We recognize ourselves by the existence of others. International comparison is absolutely necessary to understand the characteristics of any society. My lectures were meant to be a mirror in which foreign students discovered their own countries. At the same time, I believe that they can also serve as a mirror for Japanese people to re-discover themselves. I myself encountered numerous surprises as I prepared and delivered these lectures. Domestic research closed to the rest of the world cannot uncover Japan's position in the world history.

In preparing the website and lecture notes which I used to compile this book, I tried to gather information broadly. While the core materials came from the existing academic literature on Japanese economic history, I also added discourses on politics, culture and ideas in order to make the lectures intellectually stimulating to my target audience. Since my time and knowledge were limited, discussions in this book might at times be less precise than experts would allow. Concise description of issues that have been hotly debated by scholars runs the risk of oversimplification. If there are any errors in factual statements, I will be more than happy to correct them. However, it should also be stressed that the purpose of this book is to describe a broad stream of history with the help of a particular vision rather than to scrutinize historical facts in detail. The presentation of a historical vision is a task that can be done relatively independently from the clarification of minor details.

When I visited libraries and second-hand bookstores in the Kanda District of Tokyo for writing this book, I was often disappointed. In my opinion, there have been too many studies on Japanese history that were influenced by the Marxian ideology. Another group of studies endlessly pursue mini discoveries and minor re-interpretations without placing them in a proper historical context. Still others list numerous facts chronologically without structure, making them quite boring to the readers. While I respect their effort in search of truth, it is evident that competition among alternative historical visions, which can help us to select and evaluate various facts, is lacking. Social phenomena must be understood organically and comprehensively, but this does not mean that the rigid Marxian interpretation should be the only guide.

In a modest way, this book attempts to offer one possible vision to review and project economic development. This vision, presented more fully in Chapter 1, states that the dynamism of Japanese society was the result of cumulative interaction between domestic and foreign systems in which internal institutional evolution and responses to foreign elements were repeated throughout history. This progress pattern, which was unique to Japan (and Western Europe), strengthened the capabilities of both private enterprises and government officials, transformed social structure gradually but irreversibly, and prepared the

conditions for rapid industrialization in the Meiji period and beyond. However, this fortunate pattern does not exist in today's developing countries. For this reason, they cannot copy Japan's development path to grow and industrialize. I leave the validity of this vision to the assessment of the reader.

In producing this book, Japanese studies were first summarized and translated into English, then translated back into Japanese. In the process, some historical terms have been replaced by more general language. Some explanations which are totally unnecessary to Japanese readers have nonetheless been partly retained, to convey the atmosphere of the lectures delivered to foreign students. Additional data and photos used in classroom handouts and the lecture website had to be mostly omitted from this edition due to the limitation of space. Quotations in archaic Japanese have been rephrased in contemporary Japanese. At the end of this book, final exam questions I gave to my students and classroom exchanges are attached for the interested readers.

In planning and producing this book, I was deeply indebted to Ms. Yuko Fujita of Yuhikaku Publishing Co., Ltd. Mr. Susumu Ito of Yuhikaku was also instrumental in this publication. My sincere thanks go again to both, who previously helped me to publish another book. The rest of my gratitude is properly directed to my students who attended the Economic Development of Japan over the past six years. The official count of students who sat the final exam was 172, but if the dropouts are included, over 200 students listened to my lectures. I hope that they will remember the path traveled by a developing country called Japan—with its brilliant successes and dismal failures—when they formulate policies back in their own countries.

December 2004

The Author

Chapter 1

Modernization for Latecomers



The World Bank today, Washington, DC, USA



Newspaper illustration of the Black Ships of Commodore Perry, circa 1853.

1. Domestic society and external forces

In any country, history proceeds as an interaction between domestic and foreign forces. In the discussion of Japanese development which follows, this aspect of systemic interaction will be highlighted. Japan's modernization began with its encounter with the powerful West in the 19th century. The path of Japanese industrialization thereafter can be interpreted as the process of various domestic actors, including the government, businesses, communities and individuals, responding to shocks and influences coming from abroad. This perspective is very useful even today, since developing countries are now required to develop under the strong presence of globalizing pressure. The development process of such countries can also be understood as two systems, local and foreign, in dynamic interaction. Today, new ideas and systems often come with the names such as the market mechanism, democracy, conditionality, international best practice, PRSP, MDGs, and so on.

A domestic society is the base into which new foreign systems are introduced. Each society has unique characteristics reflecting its ecology and history. Existing institutions in that society are mutually dependent and form a coherent whole (this is called "institutional complementarity"). Domestic societies have their own logic and mechanisms of internal evolution and, for certain periods, can evolve mainly through internal forces. This evolution is usually slow and continuous. But when exposed to strong foreign impacts, social equilibrium is suddenly disturbed and the country is dislodged from its previous course. If the domestic response to foreign forces is resilient and appropriate, the society will begin a new dynamic evolution. But if the response is weak or inconsistent, the society may be destabilized or even destroyed under foreign dominance.

In the 20th century, isolation and self-sufficiency were pursued under socialist planning, but the effort failed miserably to produce economic dynamism. Since the disappearance of the Soviet Union, refusal to integrate into the world has been totally discredited as a national economic strategy. While the policies of the WTO, IMF, and World Bank contain many shortcomings, latecomer countries have no option but to join these international organizations. Now the question is not whether to integrate but how to integrate. Inter-

national integration is the necessary condition for development, but it is not sufficient (UNCTAD, 2004).

The term *development* does not necessarily imply the existence of external influence. Theoretically, development can be internally driven or externally motivated. In our age, however, it has become almost impossible to achieve sound and sustainable development without effectively coping with and integrating into the global system. Development now carries almost the same meaning as “catching up with industrial countries” or “modernization through trade, FDI, and industrialization.” From a long historical viewpoint, this is a very special type of development. But we can hardly think of any other way. Whether desirable or not, this is the reality we face today¹.

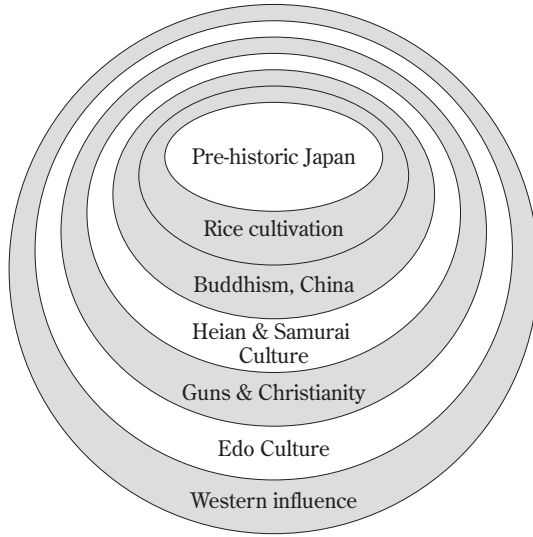
Throughout its history, Japan also experienced periods of relatively tranquil internal evolution and periods of dynamic change under strong external influences. These periods alternated to create Japanese society in a multi-layered fashion (Figure 1-1). Major external impacts on Japan included the following:

- *Rice cultivation*—introduced from the Eurasian Continent around the third century BC (recent evidence shows that rice cultivation may have been brought to Japan earlier).
- *Buddhism*—brought from China via Korea in the sixth century AD.
- *Chinese culture and political system*—imported vigorously from the seventh to the early tenth century AD.
- *First direct contact with Europeans*—guns and Christianity arrived in the 16th century AD.
- *Modernization*—the second contact with the industrialized West in the 19th century.

The Mongolians also tried to invade Japan twice in the 13th century, but their military attempts failed. It is said that, on each occasion, a huge storm destroyed their fleet off the coast of Kyushu Island. If the Mongolian invasion

¹ Among development strategies, the promoters of *endogenous development* argue for restricting external integration and letting local systems within each society become the growth engine. This includes, for example, agricultural production for local consumption rather than commercial sales, and communal development based on traditional religion, value and customs. This approach may activate communities and provide a risk sharing mechanism in a certain stage of development. But its validity as a long-term universal development strategy is not confirmed.

Figure 1-1 Japan's Multi-layered Identity



Note: Shaded areas indicate external impacts.

had been successful, Japan would have received another big foreign impact.

Compared with the history of other countries in the non-Western world, it can be said that Japan absorbed successive external shocks rather well, and used them positively for change and new growth. Japan also retained its national identity throughout this process, although Japan today and Japan in the past are entirely different in their appearance. Japanese society exhibits a multi-layered, onion-like structure, where old and new elements coexist flexibly and different characteristics can surface depending on the circumstance (Figure 1-1). Meanwhile, one Chinese social scientist has remarked that China is like a hard stone ball which cannot change unless it is exploded and replaced by another hard ball (called “revolution”), maybe of a different color.

The Japanese people happily absorb a large number of potentially conflicting elements and use them interchangeably as occasions require. This is a unique feature of the Japanese people not often seen in other societies. To put it positively, the Japanese are flexible, generous and pragmatic. But to put it critically, they are without principle, fidelity or devotion. In his famous book on Japanese philosophy, Masao Maruyama (1961) lamented that the Japanese had

no tradition of thinking logically and consistently though they were full of feelings and experiences. This criticism may be legitimate from the viewpoint of Western rationalism. But from another aspect, the seemingly principle-less way of the Japanese may have some value if we are to co-exist peacefully among different ethnicities, religions and ideologies in an integrated world. At any rate, the point we want to make here is that Japanese thinking is quite different from Western thinking, without asserting which is superior.

This book focuses on Japan’s latest great transformation driven by an external shock, namely the process of Westernization and industrialization under the strong pressure of the West during the 19th and 20th centuries.

2. Translative adaptation

The idea of *translative adaptation* is proposed by Keiji Maegawa, an economic anthropologist at Tsukuba University.

When a country in the periphery joins the world system, it may look as if the country (say, Kazakhstan) is being absorbed in the dominant international order (say, the global market system). It looks as if the country is forced to abandon its traditional culture, systems, social structure and so on, which are considered “backward,” in order to embrace the “international best practice.” Viewed from inside the country in the process of “being absorbed,” however, the situation is not always passive. In a proper integration process, Maegawa says that the country should take initiative in deciding the terms of integration,

Figure 1-2 Integration Viewed from Outside

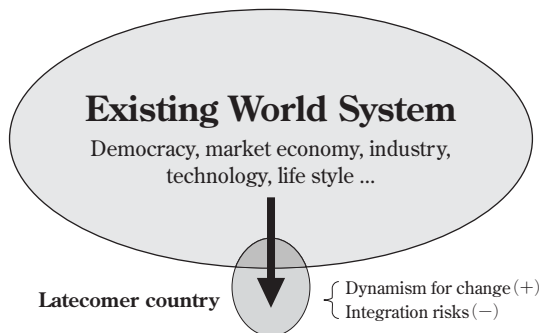
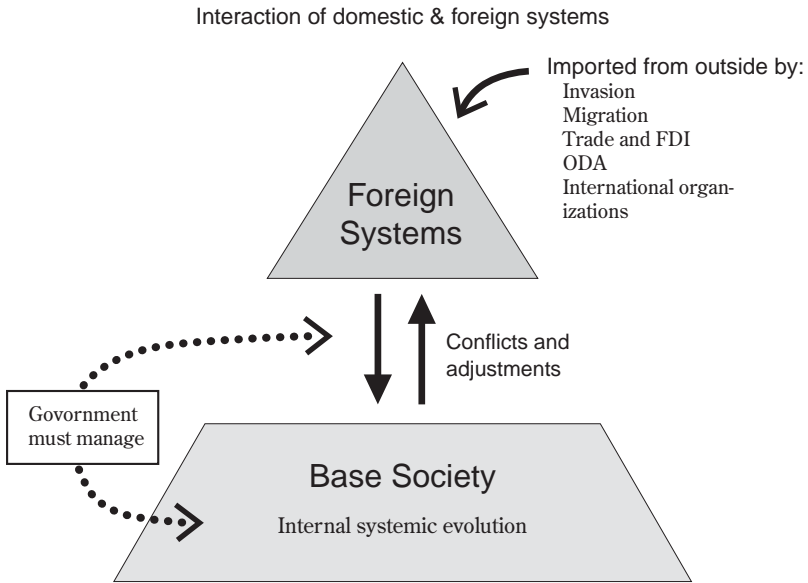


Figure 1-3 Integration Viewed from Inside



making sure that it can retain *ownership* (national autonomy), social continuity and national identity. The country changes, but the change is managed by its government and people and not by foreign firms or organizations. Foreign ideas and systems are introduced not in the original form but with modifications to fit local needs. If this is achieved, the transformed country is not really so weak or passive. It is taking advantage of external stimuli to change and grow. This is called “translative adaptation.” Maegawa says that Japan since the Meiji period did just that.

When a non-Western society encounters a powerful representative of Western civilization, it is hardly possible to escape from its influences. Some ethnic groups have been eradicated in short periods after contact with the West. At the same time, many nations and societies have adopted Western institutions and objects from without in order to survive (or by their own choice). However, it is important to recognize that they did not accept Western inventions in their original forms. Any item in one culture will change its meaning when transplanted to another culture, as seen widely in ethnography around the world. Not only cosmology, religious doctrine, rituals, but also the family system, the institution of exchange, and even socio-economic organizations

like the firm exhibit the property of adapting to external institutions and principles with the existing cultural system maintaining its *form* of structure. The essence of what has been called “modernization” is the adaptive acceptance of Western civilization under the persistent form of the existing culture. That is, actors in the existing system have adapted to the new system by reinterpreting each element of Western culture (i.e. “civilization”) in their own value structure, modifying yet maintaining the existing institutions. I shall call this “translative adaptation.” (Maegawa, 1998, pp.174-175)

However, international integration is a risky process and not all countries can perform translative adaptation. A developing country exposed to strong external pressure faces a great challenge. This is a critical moment in the history of that country. Compared with the more predictable days of internal evolution, the fate of the society and its people now depends critically on how they react to this challenge. Domestic capability is still weak, while the demands of globalization are high. Suddenly, the country is required to make a great leap forward or fall into an abyss. It is as if an average student is told by his teacher to participate in an international math competition. With enormous effort, he may improve his skill and win. But it is more likely that he will fail miserably. The problem is that the challenge is too big for his current ability. If the goal is unreachable, the effort is not fruitful.

While the effort of domestic businesses and communities is important, the most crucial response to globalization must come from the policies of the central government. If the government loses control of the integration process, dire consequences may occur, such as macroeconomic instability, social disintegration, political crises, ethnic conflict, foreign dominance, and so on.

When caught in a dilemma between weak capability and the great challenges of globalization, some governments refuse to deal with the external world and revert to isolation, economic control and the rejection of Western ideas. Other governments rush to embrace the imported principles of free trade and Western democracy uncritically, without considering the effects it brings to the domestic society. Both reaction patterns are shallow, extreme and unadvisable. Translative adaptation requires much deeper thinking by the top policy makers. It is indeed a very difficult task.

Japan faced great challenges when it opened up to the Western world

in the middle of the 19th century. It also experienced similar hardship after the war defeat of 1945. In both cases, Japan eventually emerged as a brilliantly successful latecomer, at least economically.

3. Why Japan could succeed

Traditionally, we consider Japan in the 19th century as a weak, agricultural, backward country with low technology suddenly exposed to influences from the powerful West. Japan struggled to industrialize and somehow succeeded. But why did only Japan succeed so early, among all non-Western countries? This is the biggest question for whoever studies Japan's modern history. However, Dr. Tadao Umehao, a distinguished scholar in comparative civilization, says that there is no mystery here. According to him, Japan emerged as a non-Western industrial country very naturally.



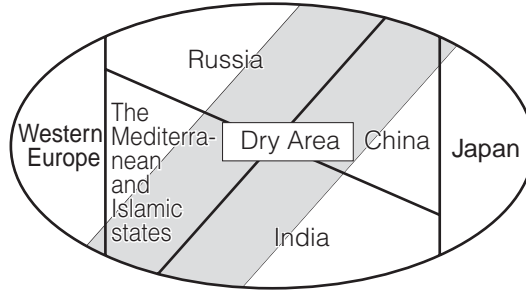
Tadao Umehao (1920-)

Until 1993, Dr. Umehao was the director general of the National Museum of Ethnology in Osaka, which he founded in 1974. In his earlier days, he traveled extensively in Mongolia, Afghanistan, Southeast Asia, Africa and Europe undertaking anthropological fieldwork. In 1957, he proposed a new theory on Japanese history and national identity.

Dr. Umehao says that the traditional view of Japan as a backward country is wrong. He argues that Japan and Western Europe are two very unique societies in the world. Both are located on the periphery of the huge Eurasian Continent. Both enjoy a temperate climate. More importantly, they are relatively insulated from violent invasions by nomadic peoples residing in the central dry areas of the Eurasian Continent. He argues that these geographic and climatic advantages are crucial for the spontaneous and continuous development of society. Japan and the United Kingdom are particularly similar in that they are island nations just off the continent.

Japan and Western Europe were an appropriate distance (not too far, not too close) from the great civilizations of Eurasia—namely, China, India, and the Middle East (Islam). They could absorb the cultural achievements of

Figure 1-4 Dr. Umesao's View of the World
Eurasian Continent



Source: Compiled by the author from Umesao, 2003, 1986.

these civilizations while being invaded and destroyed much less often than societies located in the middle of the continent. This permitted both societies to evolve cumulatively and organically. They mixed domestic culture and foreign impact properly, without being wiped out and having to start over again from scratch. Under these similar historical conditions, Japan and Western Europe developed independently and in parallel—from centralized imperialism to power decentralization, establishing feudalism, then absolutism, and finally capitalism. It is no accident that the Industrial Revolution originated in the United Kingdom, and that the only non-Western country to industrialize as thoroughly as the West was Japan. In no other areas did history evolve so sequentially. According to Umesao, Japan got behind the United Kingdom because it adopted the bizarre policy of external isolation from 1639 to 1854 (chapter 2). Without this deviation, Umesao asserts, the two nations would have achieved the Industrial Revolution at about the same time².

² In the historical discourse of Dr. Umesao, the most shocking passage to the author was his view on Japan's invasion of other East Asian countries from the late 19th century to 1945. He argues that, without the strange isolationism, Japan would have reached the Southeast Asia much sooner and fought the British and French forces there. In his words, "Japan's role in international power politics was similar to that of Britain, France and the Netherlands. Japan's later behavior as a regional power was not solely the result of a surge of militarism after the Meiji Restoration (1868). It grew from the gap between Japan and Southeast Asia in terms of their situation in the history of civilization, and from the similarity of circumstances between Japan and Western Europe" (Umesao, 2003, p.110).

Chinese, Indian and Islamic civilizations produced great cultural achievements, but their social structures were static; only empire and dictatorship (and later, colonialism) ruled. From one dynasty to another, there was no clear progress from the viewpoint of social and political evolution. For thousands of years, emperors and kings were basically the same. According to Umesao, only Western Europe and Japan satisfy the historical conditions necessary to industrialize. Japan did not imitate the West; the two areas developed spontaneously and independently (North America can be regarded as part of Western Europe). He is very pessimistic about the possibility of industrialization in the rest of the world, including all the developing countries today.

This chapter has introduced Dr. Umesao's view not because the author agrees with him completely, but because it is interesting and stimulating. His interpretation of Japanese history is unique and in the minority. In fact, his view is not very well known even among Japanese. Personally, I think the idea that industrialization will take place only under certain rigid historical conditions and nowhere else is too simplistic and deterministic. If the path to industrialization cannot be built but only inherited, ODA, FDI, development economics, World Bank and UNDP policies, and all courses in our campus (including this lecture) are all in vain. Can we really say that China will never become an industrialized country? Does Africa have no hope?

The present author believes that industrialization is more dynamic and transferable today. Dr. Umesao's explanation may be valid up to the recent past. However, we are now living in the age of internet, air travel and global exchange of information. Physical distance from the center country should no longer matter very much. Even though history is ingrained deeply in the characteristics of each people, ethnic traits are also dynamic and changeable. With great leadership and ideas, a new way of development suitable for each country should be found. Moreover, there should be more than one path to development in response to different initial conditions and shifting historical circumstances. Additionally, Dr. Umesao does not discuss the role of technology, capital and investment very much. As a specialist in comparative civilization, he emphasizes the evolution of social structure rather than the physical aspects of industrialization. But the latter are also crucial in determining the success or failure of development.

Having said this, however, Dr. Umesao may be quite right in certain areas. In particular, his theory can explain why Japan had a unique social structure suitable for industrialization, which is not observable in other countries, even before its encounter with the West. This was the result of the uninterrupted organic evolution of the Japanese society over the two millennia. It permitted Japan to absorb new foreign influences flexibly in a multi-layered fashion and succeed in the translative adaptation of Western thought and technology. This, at least partly, should be an answer to the question of why Japan was able to achieve success so early.

The next chapter will present the concrete conditions prevailing in Japan during the Edo period which enabled it to achieve a rapid catching up in the late 19th and 20th centuries.

4. A brief history of Japan

While this book focuses on modern Japan, it is useful to take a brief look at the entire Japanese history at the outset. The summary given below is not meant to be an academically respectable discourse but a very rough sketch for those who know little about Japanese history. For beginners, Japanese history can be divided into four major periods: (1) the period in which emperors held real power, (2) the period of samurai governments, (3) the period of modernization and military invasion, and (4) the period of post WW2 growth.

<Period 1: — The rise and fall of the emperor>

In the pre-historic period, the Japanese people (whose origin is still debated) were hunter-gatherers with limited agricultural activity. They lived separately in small villages but were connected by long-distance maritime trade. They lived relatively peacefully.

When rice cultivation was introduced from the continent (third century BC or before), life changed significantly. Rice cultivation required collective effort beyond family units under effective leadership. Village size grew and social order was established. Religious and military leaders began to form mini states. Wars between mini states became common, and after a few centuries of

fighting (details of which is not known due to the shortage of evidence), Japan was politically unified for the first time.

After a few more centuries, the imperial family took real power and subordinated other influential clans (Reform of Taika, 645AD). Under a strong emperor, a centralized government with Chinese-style bureaucracy and tax system was created. Many capital cities were built and abandoned one after another (consider how much resource was wasted in doing this!), but finally in 794 the nation's capital was settled permanently in Kyoto³. Military conquest of minority peoples was conducted. Buddhism was used for the political purpose of demonstrating the emperor's power and ruling the country. This is the only period in Japanese history in which the emperor had real political power.

<Period 2: — The age of the samurai>

But power concentration did not last very long. Soon, local landlords and temples became more independent from the central government and stopped paying taxes or obeying official orders. They established *shoen* (manors) and employed people to cultivate it. To protect their land, the warrior class (*samurai*) emerged. For samurais, land was the most precious asset to be defended with their lives. Meanwhile, the political power of the noble class gradually declined. They composed poems, conducted ceremonies, and played *kemari* (garden football) in Kyoto.

From the end of the 12th century onward, samurai leaders formed the government⁴. The first samurai government was established in Kamakura, 350 km east of Kyoto, in 1192 (Kyoto was still the capital—where the emperor resided—but real power rested with samurais in Kamakura). The top samurai was called *shogun*. The Kamakura government guaranteed samurais' right to

³ *Kyoto* literally means capital city. If the capital is defined to be the location of the emperor's official residence, Kyoto remained the capital of Japan until 1868.

⁴ Even after the emperor lost real power, samurai leaders still sought an imperial approval to set up a new government and legitimize their power. All subsequent governments (even today) have used the symbolic authority of the emperor instead of terminating the imperial family and themselves establishing a new kingdom or dynasty. The benefit of receiving an imperial sanction to rule must have been greater than the cost of keeping the emperor who rarely intervened in politics. Once this practice was established, deviation from it became politically too costly as it would surely invite a severe accusation of demeaning the divine family.

own land and also distributed new land to those with distinguished service in war. However, Japan was greatly shaken by two invasion attempts by the Mongolians in 1274 and 1281. Each time, the great Mongolian fleet attacked the coast of Kyushu but was repelled by a combination of Japanese resistance and a huge storm. While unsuccessful, the Mongolian attacks led to the eventual collapse of the Kamakura government. It ran out of land to distribute to samurais who bravely fought Mongolians.

After this, long internal fights among *daimyo* (samurai leaders) ensued. Finally, Ieyasu Tokugawa, one of the daimyos, reunified Japan and established the Edo government in 1603 (in what is now called Tokyo). The *Sengoku Jidai* (Warring Age) came to an end and Japan finally began to enjoy internal stability.

The Edo government was politically conservative and highly bureaucratic. It imposed rigid social order and banned foreign contact and trade (with a few exceptions). Peace was restored under a strict bureaucratic rule. However, in recent historical research, the Edo period is viewed as a dynamically evolving period rather than a stagnant dark age. Under international isolation which lasted more than two centuries (1639-1854), agricultural productivity gradually rose, and commercial crops, trade, finance and industry grew. Japan's unique culture developed. Conditions for industrialization were ripe.

<Period 3:—Meiji modernization, industrialization and wars>

Several Western powers wanted to open up Japan from its self-imposed isolation. First, the Russians came. Then other Europeans arrived. But the Edo government refused to deal with them. Finally, in 1853, the American troops led by Commodore Perry came with four “black ships” loaded with powerful guns to force Japan into concession. The Edo government—and the entire nation—was thrown into confusion. A strong anti-foreigner movement emerged all over Japan. In the following year, the government yielded to the American pressure and signed the Japan-US Friendship Treaty. Other Western powers followed the American move. The Americans further demanded a full commercial treaty with Japan. In 1858, in the midst of a heated national debate, the government suppressed the opposition and concluded commercial treaties with the

West which later turned out to be defective (chapter 3). Criticism against the government rose sharply and internal political fights ensued, finally toppling the Edo government in 1867.

The new Meiji government restored the emperor (who for a long time had no real power) as a supreme ruler and adopted a policy of rapid Westernization, modernization and militarization. In the political area, the first national constitution was promulgated in 1889 and parliamentary politics was established. In the economic area, the absorption of Western technology and the creation of modern industries were the primary national goals. The textile industry gradually emerged as an internationally competitive industry. In the military area, Japan won a war against China (Qing Dynasty) in 1894-95 and began to invade Korea (it was later colonized in 1910). Japan also fought a victorious war with the Russian Empire in 1904-05.

The Japanese economy experienced an enormous export-led boom during WW1. During the 1920s, industrialization continued despite frequent recessions, the Great Kanto Earthquake, and banking crises. The party cabinet system and the diplomacy based on international cooperation (especially with the US) were implemented during most of the 1920s. But in the 1930s Japan turned decisively to militarism. In the 1931 Manchurian Incident, Northeast China was occupied. A full-scale war with China was initiated in 1937 and the Pacific War began in 1941. Wartime economic planning was adopted.

<Period 4:—Postwar growth>

Japan was defeated in 1945 and the country's economic base was destroyed. Under the US occupation, a recovery strategy under material planning was successfully conducted in 1947-48 and postwar inflation was terminated in 1949. From the mid 1950s through the early 1970s, Japan enjoyed very rapid growth and industrialization. The manufacturing sector expanded strongly and Japan became the second largest economy in the world (after the US) by the end of the 1960s. National security under the US military umbrella, global trade expansion, and a stable exchange rate contributed to the miracle growth.

As the Japanese economy matured, growth slowed down. In the 1970s, oil shocks and floating exchange rates reduced Japan's growth to about

4 percent. An asset bubble in land and stocks occurred in the late 1980s which burst in 1990-91. Since the early 1990s and even to this day, the Japanese economy has virtually stopped growing.

Table 1-1 Outline of Japanese History

	Period	Domestic Events	External Events
Rise and Fall of Emperor	Jomon (-3c. BC)	Hunting and gathering, some agriculture	
	Yayoi / Kofun (3c. BC-5c. AD)	Internal wars → Unification of Japan	← Rice production introduced → Diplomacy with China (tributary) → Intervention in Korea
	Asuka / Hakuho (5-7c. AD)	Clan politics Tenno (emperor) consolidates power	← Buddhism introduced (via Korea)
	Nara (710-794) Capital: Nara	Ritsuryo System —Emperor’s direct rule based on laws & centralized government; Buddhism promoted as state religion	← Chinese political system imported
	Heian (794-1192) Capital: Kyoto	Court politics by nobles Manorial system (power decentralization) Rise of samurai (warrior) class	× Diplomacy with China terminated
The Age of Samurai	Kamakura (1192-1333) Cap: Kamakura	First samurai government New Buddhist sects emerge	← Two Mongolian invasions (failed)
	Muromachi (1338-1573) Capital: Kyoto	Samurai government Two emperors compete (north vs. south) Internal wars and rebellions	→ Trade with China resumes → Japanese pirates attack Chinese coast → Active trade with Southeast Asia
	Sengoku (-1603)	Internal wars among daimyo (samurai warlords) → Unification by Ieyasu Tokugawa	← First contact with Europeans Guns & Christianity introduced
	Edo (1603-1867) Cap: Edo (Tokyo)	Tokugawa Shogun Government (samurai rule, agricultural tax, class system) · Stability under strong government · Han’s promotion of local industries · Agriculture & handicraft develop · Transportation, finance, commerce, education upgraded, unified national market · Merchants’ economic power increases · Unique popular culture develops Debate over “open door policy” vs. “anti-foreigner military campaign” Han samurais topple Shogun Government	× Closed door policy —No diplomacy & trade allowed (except China, Holland, Korea, Ryukyu); Christianity banned ← America opens Japan by military threat (1853-54) Danger of colonization by West

	Period	Domestic Events	External Events
Modernization	Meiji (1868-1912) (Capital: Tokyo to present)	Strong government under emperor adopts open door policy and rapid Westernization <i>Fukoku kyohei</i> (strong economy & army) Industrialization (strong private sector supported by government)	Need to catch up with West → War with China (Qing Dynasty, 1894) → War with Russia (1904) → Annexation of Korea (1910) →Pursuit of Chinese interest →Invasion of Manchuria (NE China, 1931) → Full-scale war with China (1937) → Pacific War (1941) Invasion of SEA
	Taisho (1912-26) Early Showa (1926-45)	Democracy movement (short-lived) Recessions & economic crises (1920s-30s) Military takes over government Mobilization of people & resources for war	
Postwar	Late Showa (1945-88)	Democratization & demilitarization Economic recovery from postwar crisis Priority production system Rapid industrialization (1950s-60s) Strong private initiative MITI's industrial policy Economic slowdown (1970s-)	War defeat (1945) ←U.S. occupation (1945-51) Multilateral open door policy Joins IMF, World Bank, OECD Becomes No.2 economy (around 1970)
	Heisei (1988-)	Bubble burst, economic stagnation (1990s-)	Becomes top ODA donor (1990-99)

The gap between economic and social achievements

In the book entitled *Japan's Modernization and Social Change*, sociologist Kenichi Tominaga proposes a general framework to understand the various aspects of Japan's modernization and industrialization. Traditionally, there have been two opposing interpretations of Japan's modern history. The first view positively considers Japan's economic performance, especially its brilliant success as a latecomer. The second view castigates past Japan as the oppressor of its own people and a military invader of the neighboring countries. Is Japan a model for all developing countries, or a negative case to be avoided at all cost? Tominaga cautions that a debate over such a simplistic dualism yields little result. According to him, modernization is a complex phenomenon that must be analyzed with scientific concepts and models.

Tominaga first emphasizes that the modernization process of a non-Western country does not trace the same path as it does in the West.

To be successful, the modernization of a non-Western country must be a creative process in which a comparison between indigenous and foreign cultures is made, the superior aspects of the latter are selectively introduced, the imported and indigenous elements are combined to breed something new, and conflict between the two is mitigated. Japan's modernization was precisely such a process. Modernization currently proceeding in the societies of the Asian NIEs also conforms to this description. (Tominaga, 1990, pp.38-39)

This idea is essentially the same as Maegawa's *translative adaptation* discussed in the main text. From this realization, Tominaga's method proposes to divide society into the following four subsystems and describe the evolution of each in detail.

- Economic modernization (economic growth through industrialization)
- Political modernization (democratization)
- Social modernization in the narrow sense (transition from *gemeinschaft* [land- and lineage-based groups] to *gesellschaft* [functional groups] as well as a shift from closed rural communities to open urban communities)
- Cultural modernization in the narrow sense (transition from superstition and irrational customs to scientific and rational thinking)

Tominaga's main argument can be summarized as follows. The modernization of Europe started with the internal development of political and social subsystems fol-

lowed by the Industrial Revolution. But latecomer countries cannot follow this sequence. For them, economic modernization is “easier” than political modernization. Social and cultural modernization is even harder. This is because much more time and energy are required to transform a structure which dominates and permeates every detail of people’s life than to copy new technology and industries. This naturally leads to a gap between fast economic growth and slow progress in all other aspects. However, since the economic subsystem and the non-economic subsystems are interdependent, this gap generates tension and conflict which distorts the modernization process of that country. Prewar Japan, which boasted high technology and modern industries on the one hand and imposed the concept of the holy nation derived from ancient emperor worship and the feudal family system on the other, is a typical example. While expressed sociologically, Tominaga’s assertion in fact belongs to one of the very popular views on the merits and demerits of Japan’s modernization process.

Tominaga also argues thus:

- Before the Edo period, Japan did not generate any ideas or systems that could support modernization. For this reason, modernization beginning from the subsequent Meiji period called for a total negation of traditional systems and a switch to foreign systems.
- Modernization cannot succeed in a society where *gemeinschaft*, closed rural communities and irrational thinking remain. If modernization is pursued in the presence of these elements, dilemma and friction become inevitable.
- The serious modernization gap in the prewar Japan was largely removed as a result of bold postwar reforms, but some traditional elements still remain even today. Japan’s modernization will not be complete unless these remaining elements are finally eliminated.

It is clear that Tominaga views Japan’s indigenous elements very negatively. He regards them as nothing but obstacles to modernization rather than a basis on which imported elements are to be grafted. This is in sharp contrast to Umegawa’s high evaluation of the continuity of Japanese history which prompts him to say that Japan, as Britain, evolved naturally and autonomously as a modern nation. It is also at odds with Maegawa’s *translative adaptation* and his assertion that Japan successfully mixed domestic systems with foreign ones with the former serving as the more fundamental base. Which interpretation is more reasonable? I leave it to the reader to decide.

Chapter 2

The Edo Period: Pre-conditions for Industrialization



Yomei Gate, Toshogu Shrine in Nikko

1. The Edo period: 1603-1867

From the late 12th century through the 17th century, Japan was ruled by samurais (military leaders) but its politics remained unstable. Internal wars and power shifts were very frequent, especially during the late 15th century to the end of the 16th century, which was called the *Sengoku* (warring) period.

Finally, Ieyasu Tokugawa unified the country after the decisive Battle of Sekigahara (located between Nagoya and Kyoto, and visible today from the Shinkansen) in 1600 and the attacks on Osaka Castle in 1615 where the rival Toyotomi family perished. Ieyasu established a new government in Edo and became the first shogun of the Edo Bakufu in 1603. Edo, a sleepy little town until then, was transformed into a huge political city by aggressive public works projects including land reclamation and artificial canals and water supplies. The Tokugawa family ruled the country for the next 264 years (15 shoguns in all). Ieyasu Tokugawa was deified and is still worshiped in Nikko Toshogu Shrine.

A particularly important development during the Sengoku and early Edo period was the removal of various middle-layer organizations such as Buddhist temples and sects, manorial owners and resident landlords which had existed since the ancient times and through the middle ages. Power decentralization and indirect rule were now replaced by direct and unified rule by the newly emerged *daimyo* (warlord) in each region. This was achieved by a number of policies and actions taken by Sengoku daimyos, especially Nobunaga Oda and Hideyoshi Toyotomi, the two most powerful military leaders before Ieyasu finally took power. Their policies included the military conquests of opponents, the liberalization of commerce, the prohibition of inter-regional custom duties, official land survey and registration (*kenchi*), the confiscation of all arms from non-samurai population (*katanagari*), the construction of a castle town in every region, the residential requirement of all samurais in castle towns, the relocation of markets to castle towns, and so on. From this time onward, samurais and farmers were strictly separated in profession and residence. Samurais who no longer protected their land became salaried urban officials. Daimyos began to rule land, farmers and samurai retainers directly. This movement which was started in the Sengoku period was continued and completed by the Edo government.

Table 2-1 Some Basic Terms of the Edo Period

Edo	—— The old name for Tokyo. Edo literally means the mouth of bay. Incidentally, Tokyo means eastern capital (the western, or the traditional, capital is Kyoto).
Daimyo	—— Regional samurai ruler. During the Edo period, it meant the head samurai of a local government (han).
Shogun	—— Originally, the supreme commander of a dispatched army. But it usually means the head of a central military government.
Bakufu	—— Residence of a military ruler. Later it meant the central government established by a military leader.
Han	—— A local government (like province or prefecture) in the Edo period.

We start the story of Japan's economic development from the Edo period because the pre-conditions for later industrialization and modernization were created internally during this period. Let us list these pre-conditions at the outset:

- (1) Political unity and stability
- (2) Agricultural development in terms of both area and productivity
- (3) The development of transportation and the emergence of nationally unified markets
- (4) The rise of commerce, finance and the wealthy merchant class
- (5) The rise of pre-modern manufacturing (food processing, handicraft, etc.)
- (6) Industrial promotion by local governments (sometimes successful but not always)
- (7) High level of education

These are the features of the Edo period which are commonly cited by many researchers. The remainder of this chapter examines them in detail. Note that these conditions are not met by some countries even today. We may even say that developing and transition countries equipped with all these conditions are relatively rare.

2. Features of the bakufu-han system

The Edo society can be characterized as follows.

- (1) It was a class society. The ruling class was the *samurai* (military

men who were permitted to carry a sword). The ruled included farmers (ranked no.2), craftsmen (no.3), and merchants (no.4). These four classes were called Shi-Nou-Kou-Shou (from top to bottom)¹. There was a big gap between the samurai class and other classes. Farmers were officially placed no.2 because they paid the rice tax, but they were not particularly respected. Below all of these classes, there were also outcasts (*eta* and *hinin*—see QAs at the end of the book).

(2) Politically, it was a centralized system. The bakufu (central government) had absolute political power over the fate of hans (local governments) and could even remove or abolish them. The shogun gave daimyos the land to rule. In return, daimyos pledged loyalty to shogun². Any sign of disobedience was met with the sternest punishment including *seppuku* (ritual suicide) and the termination of the family.

(3) Economically, it was more decentralized. The bakufu was not very capable of (or interested in) conducting consistent economic policies. Its policies were often unstable and myopic. On the other hand, each han could decide its internal policies including administration, taxation, education, industrial promotion, issuing paper money, and other economic regulations as long as it was not explicitly prohibited by the bakufu.

(4) The bakufu imposed the following expenses on hans.

- (i) *sankin kotai*, the bi-annual commuting of the han lord between home and Edo: every daimyo was asked to live in Edo in every other year and in his han the rest of the time. This cost a huge sum of money in travel and residence since a large number of retainers also moved with the daimyo annually;

¹ Historically, Vietnam also had the distinction of Si-Nong-Cong-Thuong (the Chinese characters are the same, only the pronunciation is different). The idea originally came from Confucius in ancient China, but the top ranking “si” in Vietnam meant scholars, not fighting men. Moreover, in China and Vietnam, the four-way classification merely indicated what type of people were respectable in society and had no political implications. The Edo government turned this idea into an ideology that legitimized a class society with samurai on top.

² Because of this relationship, the Edo period is sometimes characterized as feudalism. Many people (especially those in the Meiji period) also commonly recalled the Edo system as “feudal” with negative connotation. However, we prefer not to use this term in order to avoid ambiguity and unnecessary debate.

- (ii) the irregular assignment of public works such as building and repairing castles, moats, roads, reservoirs, canals, waterworks, etc;
- (iii) other ad hoc and arbitrary taxes and charges, for example, for celebrating the birth of a son in the shogun family. Imposition of these expenses on hans had the effect of weakening the financial capability of hans. Many hans sank deeply into debt and building up military forces to rebel against the bakufu became almost impossible.

3. Agriculture

The Edo society was agrarian, particularly at the beginning, with about 90% of the population being peasants although this ratio subsequently declined a little. The basic unit of production was the small family. Previously, one farming household often contained dozens of people with many families and their servants. But a series of official land surveys and registration (*kenchi*) conducted before and after the beginning of the Edo period dismantled the big family system into small farming units, with each family guaranteed (and obliged to cultivate) its portion of the farmland.

According to the law, peasants had no right to move and were tied to the land as a labor force and a tax base. But in reality, some farmers moved to new land, sometimes to avoid a high tax burden or unreasonable policies and sometimes to simply improve their life. Later, as rural income rose, many well-to-do farmers enjoyed village festivals as well as trips to Ise Shrine and other religious sites (officially for worship, but actually for fun).

Villages were well organized and permitted autonomy as long as they paid rice taxes as stipulated by the central or local government³. The rice tax was levied on villages, not on individual farmers. Village leaders, who were often themselves farmers, allocated the rice tax burden among villagers. In this sense, village leaders played the role of the lowest-level tax administration. Thanks to them, the bakufu and hans could raise tax revenues with little admin-

³ Each han separately decided the rice tax rate and the way to collect it. Similarly, the bakufu levied rice taxes from the areas directly ruled by it. Rice tax revenue thus belonged to each collecting government.

istrative cost. Keiichi Tanaka (2000), an Edo historian, argues that farmers were very dynamic and independent, and they often rejected bakufu officials and their policies which were considered inconsistent or unreasonable. Tanaka believes that the bakufu government generally had no long-term policy vision; most of its laws and regulations were *ad hoc* responses to ongoing historical changes which could not be stopped.

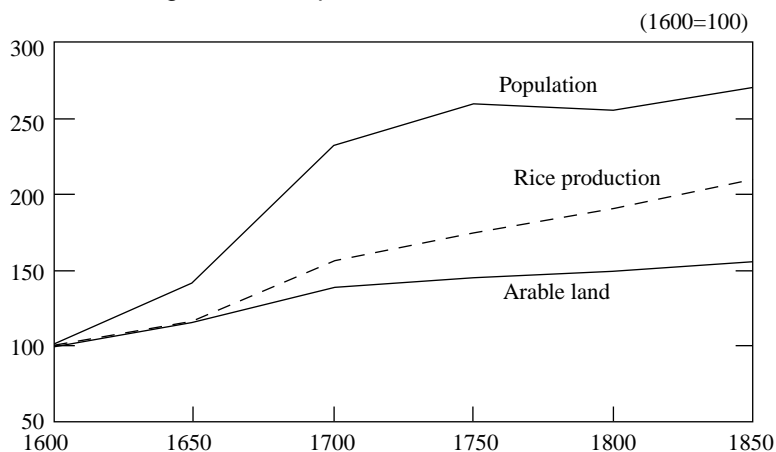
There were two ways to determine the rice tax obligation. The first was the *kemi* (inspection) system where an official inspector visited the village to check the actual rice yield every year. Naturally, village leaders treated the official with a lot of delicacies and gifts. Some officials only had drinking parties without actually going to the fields. The bribed official happily understated the crop yield, often substantially, greatly relieving the tax burden of the villagers. According to historian Shinzaburo Oishi (1977), this type of corruption was the main reason for the chronic revenue shortage of the governments at all levels. On the other hand, if the visiting official was arbitrary and uncooperative, he might inflate the tax obligation to the chagrin of the farmers.

The second method was the *jomen* (fixed amount) system, whereby the rice tax was unchanged for consecutive three or five years based on the average yield of the past years. Under this system, the government could secure a stable tax revenue while minimizing the inspection cost. Farmers faced a risk in the case of a crop failure, but the incentive to produce more was also greater if they worked harder, since additional output was all theirs. According to Tanaka (2000), farmers often preferred the *jomen* system because they did not want to deal with corrupt officials every year.

During the Edo period, the agricultural sector grew in two phases: quantitative expansion first, then qualitative intensification.

From the mid-15th century to the late 17th century, which includes the previous *Sengoku* (warring) period and the early Edo period, there was an enormous expansion of farmland (especially rice paddies). Earlier, rice was produced in narrow valleys where mountains ended and plains began, because this was the only place where constant water supply was available. But during this period, large-scale water management projects were carried out all over Japan by daimyos and influential farmers to control floods and use rivers for irrigation. As a result, land under cultivation expanded dramatically. The plains,

Figure 2-1 Population and Rice Production



Source: Hayami and Miyamoto, eds, 1988, p.44.

which had hitherto been uninhabitable marshlands, were turned into productive paddy fields. The population increased rapidly in a way rarely seen in a pre-modern society. Shinzaburo Oishi calls this “The Great Age of Opening Fields.”

By the late 17th century, land expansion came to a halt. The rapid growth of farmland in the previous period also brought some negative effects, including labor shortage, deforestation, and frequent occurrence of floods. From this period onward up to today, Japanese agriculture has emphasized intensive cultivation with large inputs of labor and technology rather than the quantitative expansion of arable land.

From the 18th century onward, the area of cultivation and population remained relatively stable, but rice output continued to grow thanks to increased productivity. Contributing factors included double cropping, new species of rice, fertilizer (dried fish was especially popular), and the introduction of new farming tools. Many guidebooks were published to teach farmers how to produce crops more effectively. Yasusada Miyazaki’s *Nogyo Zensho* (Encyclopedia of Agriculture) in eleven volumes, published in 1697 and reprinted many times subsequently, was one of them.

At the beginning of the Edo period (17th century), peasants produced mainly for family consumption. They ate what they produced and their living

standards were at subsistence levels. However, from the middle Edo period, productivity rose and agricultural surplus was created. Peasants began to sell their rice and other crops to the market which was often nationally integrated. Cash crops increased and commercial agriculture began.

Officially, all farmers were supposed to belong to (be tied to) the assigned land. But by the 19th century as landless farmers increased, the income gap among farmers widened. Large landowners who hired tenant farmers to cultivate their land began to emerge.

Farmers' uprisings frequently occurred, especially at the time of famine and toward the end of the Edo period. Rebellious farmers were unhappy with taxes, inflation, famine, corrupt officials, or government policies.

4. Budget and money

The bakufu's revenue sources included the following:

- Rice tax from the land ruled directly by the bakufu (areas not distributed to other daimyos)
- Monopoly on mining, foreign trade and minting money
- Direct control on major cities (Edo, Kyoto, Osaka, Nagasaki, Sakai, etc.)
- Financial contributions from merchants in exchange for monopoly and cartel rights

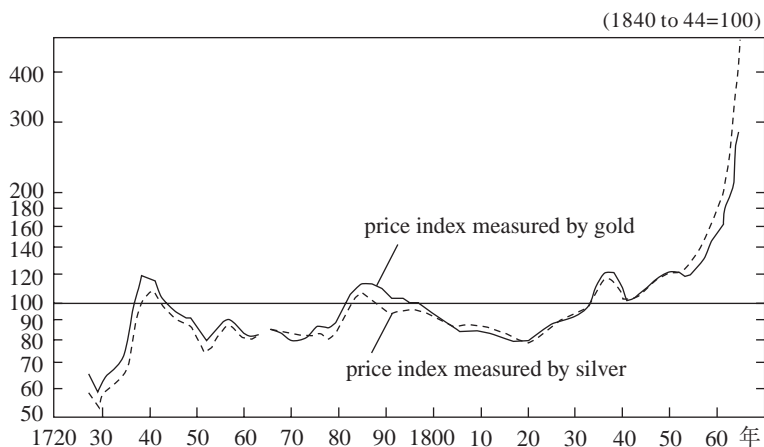
In addition, as noted above, the bakufu freely ordered hans to various public works, eliminating the need to have its own public investment budget. On the other hand, the han's revenue consisted of the rice tax from its territory and the revenues from promoting local industries (if it is successful).

The entire fiscal system was based on the rice tax. The fiscal unit of account was the "koku" (about 180 liters of rice). The han's economic size was measured in koku and samurai's salaries were also paid in rice (but of course they had to be cashed before buying things). Rice was actually collected from each village and transported to the major rice markets, then redistributed to the rest of the country. Osaka was by far the most important national rice market.

This rice-based economic system had the following consequences:

- (1) Since rice had to be physically shipped across regions, this tax system required a nationally unified transportation and distribution mecha-

Figure 2-2 General Price Levels



Source: Shimbo and Saito, eds, 1989, p.71.

Note: The general price index in Kyoto and Osaka, five-year moving average.

nism. Private merchants provided the required services but the bakufu and han governments often regulated and supported them. As land transportation (by horse) was very costly and inefficient, water transportation on the sea, river and lake was mainly used.

- (2) The center of economic activity gradually shifted from subsistence farming to commercial agriculture and handicraft industries. But the government's tax base basically remained on rice. There were occasional attempts to levy on commerce but this did not become a reliable tax base. As time went by, the bakufu and han governments faced fiscal crises while farmers and merchants enjoyed increasing income and wealth.
- (3) Faced with chronic fiscal deficits, the bakufu resorted to the following measures: monetary debasement (similar to printing money, which leads to inflation), spending cuts, tax increases, price controls and administrative reforms. Some commercial policies were tried in certain periods, including granting certain merchants with the exclusive right to market a product (i.e. monopoly) in exchange for financial contribution to the government. However, these measures cannot be considered a set of consistent policies supported by a long-term vision.

Money consisted of both gold and silver. Gold was popular in Edo



A scene from Tokaido "Highway" (photograph by Felice Beato)

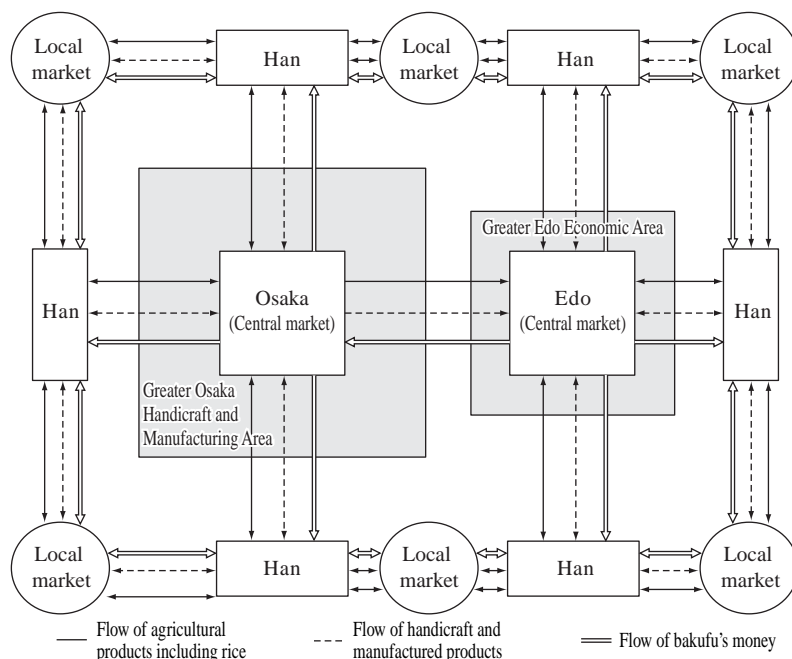
(Eastern Japan) and silver was mainly used in Osaka (Western Japan). Copper coins were also used for small transactions. Hans were also allowed to issue local paper money. Inflation rose at the time of famine and accelerated towards the end of the Edo period, especially after international trade was resumed.

5. Transportation and commerce

The bakufu designated five official highways and opened major sea-lanes. But private inns, restaurants, shippers, baggage carriers, etc. provided necessary services. As part of non-tax obligation, farming villages near the highway were required to provide horses at the time of heavy travel needs. *Sankin kotai* (daimyos' bi-annual commuting between Edo and their hans) further stimulated the development of the road system. At the same time, out of military concern, the bakufu did not permit the free movement of people and merchandise. At strategic points, *sekisho* (passport controls) were created. Some rivers were intentionally left without bridges, to block the march of a potential enemy to Edo. Hans were not allowed to build military ships or maintain navies.

As noted above, from the beginning, the Edo tax system presupposed a nationally unified rice market. The development of cash crops and handicrafts also expanded nationwide commerce. Osaka was the commercial center with a

Figure 2-3 Inter-regional Economic Linkage in the Late Edo Period



Source: Miyamoto and Uemura, 1988, p.285.

large number of wealthy merchants and money lenders, while Edo was the political center as well as a large city with consumers. Naturally, the sea lane between the two cities was well-developed. In Osaka, even the futures market in rice was established. This is said to be the first futures market in the world.

The bakufu's policy towards commerce and industry was variable and inconsistent. Sometimes the central government tried to control and tax private businesses, while at other times a free economy was encouraged. Cartels were sometimes imposed and other times prohibited. Economic historians still debate whether the Edo economy was more dynamic under the free market policy or under the pro-cartel policy. According to Matao Miyamoto and others (1995), the sound development of the market economy depends on a number of institutions and customs such as the bill of exchange and credit provision to facilitate transaction. From this perspective, the authors defend the cartels in the Edo period as a private mechanism to generate such services. From the viewpoint of historical institutional analysis⁴, Tetsuji Okazaki (1999) also tries to show that

estimated GDP grew faster during the time when cartels were permitted than when they were banned. He argues that trade cartels were a positive factor for the development of the Edo economy rather than an impediment. However, the available data and his regressions may be too crude to draw a strong conclusion.

Toward the end of the Edo period, many hans and local cities reached a relatively high level of economic development. As a result, direct trading among them without the intervention of Osaka merchants began. The center of economic activity gradually shifted eastward, from Kansai (Osaka, Kyoto) to Edo and Eastern Japan. In addition to rice, a large number of products were traded in nationally integrated markets.

6. Industry

As agriculture and commerce grew, pre-modern manufacturing such as handicrafts and food processing also began to develop. Each region created specialized products which were marketed all over Japan. For example, tea, tobacco, wax, indigo, salt, knives, sword, pottery, lacquer ware, silk, cotton, soy sauce, sake, paper, stone cutting, medicine, and chemicals were traded widely. In order to enrich the local population and increase the tax revenue, many hans promoted local industries, and some even succeeded (Nishikawa and Amano, 1989). Here are some examples:

Tokushima han (indigo): Farmers produced indigo along the Yoshino River and their output gradually grew. But indigo distribution was monopolized by Osaka merchants who imposed high interests on loans. In order to protect local farmers and encourage local merchants, the han government created an indigo exchange and provided financial and distribution services. The bakufu objected to this move, prohibiting official bodies to engage in such activity. In reality, the bakufu wanted to protect Osaka merchants who contributed financially to its coffer. In response, the han privatized the indigo exchange and other services.

⁴ According to Okazaki, historical institutional analysis is “a research program that conducts theoretical and empirical analyses on important problems in economic history such as the role, the reason of existence, and the mechanism of emergence and transition of institutions by the application of game theory.” (Okazaki, 1999, pp.5-6)

Takamatsu han (sugar): The Takamatsu government issued han's paper money to promote various industries but its attempts generally failed, and its money depreciated. After many such failures, the han finally succeeded in pilot production of sugar from sugar beets and commercializing the technology. As sugar production greatly increased, the han encouraged inter-han trade to expand the market. But again, the bakufu intervened to discourage such trade not brokered by Osaka merchants.

Satsuma han (military technology): This han in southern Kyushu imported new technology from the West and produced blast furnace, cannons and western ships. It was also engaged in illegal trade with Ryukyu (Okinawa), which was very profitable. By increasing wealth and military capability, Satsuma han later played the key role in toppling the bakufu government and establishing the Meiji government.

These are just a few examples. Many other hans were engaged in industrial promotion including Choshu han (paper, wax), Yonezawa han (safflower and lacquer), Akita han (silk and silk dress), Hizen han (pottery, coal), Higo han (lumber, silk), and so on. But we should not forget that there were also other hans which were less successful and fell deeply in debt. They borrowed a large amount of money from private merchants but never repaid.

7. Education

The popularity of education in the Edo period is often cited as the cause of fast industrialization in the later periods. Education in the Edo period ranged from the recondite study of ancient Chinese philosophy and literature at public schools to children's basic education at private schools. Education fever was not just in such large cities as Edo, Osaka and Kyoto but also a nationwide phenomenon. Here, the four main types of learning institutions are introduced.

- (1) Bakufu schools—The bakufu schools mainly taught Confucianism, an ancient Chinese philosophy started by Confucius in the 6th to 5th century BC. It emphasized social order, proper rituals, the way of good political leadership, and respect for the elderly and superiors. The Edo government vigorously promoted Confucianism as an ideology to legitimize and maintain the class society. Seika Fujiwara, Razan

Table 2-2 Examples of Private Professional Schools (Late Edo Period)

School & location	Teacher & year of establishment	Main teaching	Prominent students
Shokason Juku (Hagi, Choshu Han)	Shoin Yoshida 1855 (until 1857)	Social and political philosophy	Shinsaku Takasugi (anti-bakufu fighter) Genzui Kusaka (anti-bakufu fighter) Hirobumi Ito (prime minister) Aritomo Yamagata (prime minister)
Teki Juku (Osaka)	Koin Ogata 1838	Dutch language & Western medicine	Yukichi Fukuzawa (founder of Keio Univ.) Masujiro Omura (military reformer) Sanai Hashimoto (Western studies) Keisuke Otori (bakufu & Meiji statesman)
Narutaki Juku (Nagasaki)	Philipp F. B. von Siebold (German) 1824	Western medicine	Choei Takano (Western studies) Genboku Ito (medical doctor) Keisuke Ito (medical doctor and botanist)
Kangien (Hita, Bungo Han)	Tanso Hirose 1817	Confucianism & ancient Chinese literature	Choei Takano (Western studies) Masujiro Omura (military reformer)

Hayashi and Hakuseki Arai were the leading bakufu scholars. Students had to memorize and interpret ancient Chinese books. How to modify this foreign doctrine to fit the Japanese reality was one of the important theoretical questions. There were also bakufu schools for the European language (Dutch) and technology (medicine, navigation, military technology, etc).

- (2) Han schools—Hans also established schools to educate their young samurais. The curriculums were basically the same as those of bakufu schools, with Confucianism at the center of learning. Toward the end of the Edo period, han schools were expanded to emphasize practical skills such as military training and foreign language. Some even accepted non-samurai students. Many han schools were transformed into education institutions in the Meiji period which followed.
- (3) Private professional schools—Eminent scholars often set up their own private schools and recruited students. Depending on the instructor, various subjects were taught: Confucianism, “national studies” (research on ancient Japanese literature which later led to nationalism and an anti-foreigner movement), Western languages (Dutch, later also English), medicine, science, technology, and so on. These schools accepted both samurai and non-samurai students. In the late Edo period, they often attracted talented and passionate young people with the

desire to contribute to the country. Their eyes were opened to the international situation and Japan's precarious position in it. A large number of national leaders in the late Edo period and the early Meiji period came from such professional schools.

- (4) *Terakoya* (private primary schools)—These schools were run by local teachers to teach the 3Rs (reading, writing, and arithmetic which meant abacus) to small children. Initially, *terakoya* was typically a charity organization but later evolved into a profit-seeking entity charging tuition fees. Normally one teacher taught a few dozen children who received individual assignments. There was no regulation on schooling age, but most children entered *terakoya* at the age of seven or eight and stayed until the age of twelve or thirteen. As the public realized the importance of studying letters and arithmetic, a large number of *terakoya* were established from urban to rural areas contributing to the high literacy rate among the general population.

Proto-industrialization and population dynamics

Economic historians have noted that certain areas of Europe, such as Flanders in Belgium and Lancashire in England, were “industrialized” in the 17th and 18th centuries even before the Industrial Revolution took off in the United Kingdom. This industrialization was characterized by rural, family-based production of textiles and garments without modern machinery and was often brokered by urban merchants.

The concept of *proto-industrialization* was proposed to explain why this happened, and why it was observed in certain areas only (*proto* means primitive or early). The proponents have advanced a hypothesis to explain rural industrialization from the unique interaction among agriculture, population and commerce. Population growth is often regarded as given in economic modeling. But in the hypothesis of proto-industrialization, population dynamics is a crucial endogenous element. F.F. Mendels and P. Deyon, who proposed this idea, define proto-industrialization as a phenomenon satisfying the following three conditions:

- It is a manufacturing activity for market sales, not for home consumption.
- It is undertaken by peasants in a rural area where soil is poor and plots are small.
- It is located near an area of commercial agriculture with large farm size and high productivity.

Proto-industrialization begins as a side job in villages where agricultural productivity is low. They can sell cloth and garments to nearby rich villages where agricultural productivity is high. It is a sort of specialization (division of labor) within a relatively small geographical area: villages with fertile soil produce farm products and villages with poor soil produce manufactured goods, and they exchange output with each other. They sometimes also sell their products to larger markets.

Furthermore, the hypothesis of proto-industrialization assumes certain demographic dynamics in the following sequence:

- (1) For some reason, villages with poor soil face a population increase, leading to food shortages.
- (2) Poor peasants engage in the production of garments for sale to relieve the population pressure.
- (3) This increases their income, which prompts them to get married sooner and have more children.

- (4) Population growth continues to keep the peasants just as poor as before, even though they are more “industrialized.”
- (5) The supply of cheap labor is thus increased, and rich farming villages and urban merchants continue to accumulate wealth. (This widening income gap may possibly generate capitalists and landless farmers leading to industrialization under full-fledged capitalism in the Marxian sense. However, this historical linkage is not convincingly proven empirically.)

According to Osamu Saito (1985) of Hitotsubashi University, the Japanese data in the Edo period does not support the hypothesis of proto-industrialization. There is no evidence of systematic population increase in the areas where peasants engaged in pre-modern manufacturing. On the contrary, it is said that farmers practiced birth control, sometimes even killing new-born babies, to manage the population pressure.

Proto-industrialization seems to assume a rather peculiar population dynamics which may be applicable to certain European regions in certain periods, but not in the rest of the world or other times. However, the idea of population growth responding to the process of early industrialization is an interesting one.

Chapter 3

Meiji (1) : Key Goals of the New Government



Two of the remaining *odaiba*, the bakufu's fortified square-shaped islets, are visible.

1. The opening of ports and the fall of the bakufu

From 1639, the bakufu government banned any foreign contact except in a very limited way at Nagasaki's *Dejima* (tiny artificial island) under strict official control. In other words, the bakufu monopolized foreign trade. Korea and Ryukyu (Okinawa) had diplomatic relations with Japan while Chinese and Dutch merchants were allowed to trade with Japan. All other transactions were strictly prohibited. No Japanese were allowed to go abroad or come home from abroad. Under this isolation policy, the only channel for absorbing Western knowledge, mainly medical and scientific information, was through Dutch books and products.

But from the end of the 18th century, foreign ships began to approach Japan with an intention to trade. The Russians and the British were particularly eager but the bakufu refused to talk to them. Meanwhile, the news of the Opium War (1840-42), in which Britain defeated China, took possession of Hong Kong and forced China to open its ports, was a big shock to the bakufu.

Finally, four American military ships ("Black Ships") led by Commodore Matthew C. Perry entered Edo Bay in 1853. The bakufu was forewarned about their coming but did nothing to counter it. This was a well-planned mission for which the negotiating strategy with Japan had been carefully designed. Perry was convinced that the show of force, not peaceful diplomacy, was most effective with the Japanese. Firing powerful cannons, Perry demanded a "friendship" treaty which allowed American ships to use Japanese ports. The Americans left, saying that they would return to hear the answer the next year¹. All of Japan was thrown into chaos and a fierce debate began as to whether Japan should open its ports or repel foreigners. When Perry and his troops returned to Edo Bay the next year, the bakufu agreed to sign the friendship treaty with the United States and opened Shimoda and Hakodate for foreign ships. Similar treaties were also concluded with the Europeans.

¹ When the American black ships left, the bakufu ordered the Administrator of Izu to quickly build odaiba, several fortified islets, off the coast of Shinagawa. Today, the two remaining odaiba can be seen from the Yurikamome train near Rainbow Bridge. Apparently, these tiny forts were not enough to stop the Americans.

In 1858, the bakufu government asked for an imperial permission to sign comprehensive commercial treaties with the major powers but it was not granted. However, the bakufu signed them anyway without imperial permission. Politically it would have been more advisable to first hear the views of various domestic groups, especially influential daimyos, before signing these treaties but the bakufu did not do that. Naturally, the bakufu's unilateral action was severely criticized. Naosuke Ii (bakufu high official, something like Prime Minister) responded by arresting and executing the political opponents. However, Ii was assassinated one year later, in 1859, by samurais infuriated by the bakufu's oppressive policy.

With the conclusion of the friendship and commercial treaties, foreign diplomats and merchants began to settle in Japan. However, they were permitted to live only in designated foreign settlements and travel only in their vicinities. Free contact with the Japanese public was prohibited. The largest foreign settlement was Yokohama, a city newly created for this purpose.

The opening of Japanese ports led to significant social and economic changes.

- (i) Foreigners brought new ideas, technology, industry and systems, and the Japanese began to absorb them very rapidly. But they were also afraid of the superior military power of the West.
- (ii) Silk and tea suddenly found huge overseas markets. The rising output and soaring prices of these commodities enriched farmers who produced them².
- (iii) Enriched farmers began to buy clothes made in England instead of wearing homemade or secondhand clothes.
- (iv) A new merchant class, called the *Yokohama merchants*, emerged to link domestic producers and markets with foreign merchants. As noted

² Some development economists regard international integration and free trade as the engines of growth. However, in reality, a sudden opening of developing economies often leads to enterprise bankruptcies, de-industrialization, rural impoverishment and the widening income gap. *The Least Developed Countries Report* of the UNCTAD (2004) states that a consistent domestic development strategy is the prerequisite for poverty reduction without which export promotion alone will not have desired effects. In this context, the Japanese experience in which the exports of silk and tea enormously enriched the farmers in the late Edo "port-opening" period is extremely interesting (chapter 5).

above, foreigners were not permitted to travel outside the foreign settlement.

- (v) As inflation surged, samurais and the urban population were impoverished. The entire price structure was transformed after the opening of ports. Old industries and merchants declined and new ones emerged.

The commercial treaties which the bakufu signed with the West were unequal treaties in the sense that (i) Japan had no right to decide tariffs; and (ii) the Japanese court could not judge foreign criminals in Japan. After a while, Japanese import tariffs were set uniformly at about 5 percent (this situation continued until 1899 when the tariff rights were partially restored). Inability to indict foreign criminals was considered to be great national humiliation. The opposition blamed the bakufu for signing defective treaties. They also criticized the bakufu for economic turmoil, including inflation, and yielding to foreign pressure without national consensus or imperial permission.

After the opening of ports, severe political fights ensued for about fifteen years. The details are too complicated to describe here, but events unfolded over the following three key issues:

- (i) Open door policy versus anti-foreigner nationalism
- (ii) Upholding the emperor versus supporting the bakufu
- (iii) Fighting for political control among strong hans (especially Satsuma and Choshu)

Anti-foreigner nationalism was very strong at first, but people gradually realized the impossibility of repelling the foreigners by force; the West was too modern and powerful. The political fight finally centered on who would remove the bakufu and establish a new government. In a series of relatively minor battles (one of the fiercest was fought where Ueno Park now stands), the bakufu forces were defeated and the new Meiji government was established in 1868. The emperor moved from Kyoto to Edo, which was renamed Tokyo (meaning eastern capital).

2. The Meiji government and its goals

The Meiji government was established and run by young samurais from strong hans in Western Japan (especially Satsuma, Choshu, Tosa, and

Hizen) and a few influential noblemen. The emperor was elevated to the head of state for legitimacy and as a unifying symbol of the new regime. The Meiji government had a very clear and determined policy objective: rapid Westernization and modernization of Japan. At first, the biggest external challenge was to avoid being colonized by the West. But this fear subsided in the early Meiji period as Japan began to aggressively absorb Western systems and technology while retaining national unity and identity. For the rest of Meiji and beyond, the top national priority was to catch up with the West in every aspect of civilization, i.e., to become a “first-class nation” as quickly as possible.

After a “long, peaceful sleep” (international isolation), Japan suddenly discovered that Europeans and Americans were greatly advanced in technology and industry while Japan was a backward agricultural country. This was a big shock to Japan. The acute recognition of backwardness and shattered pride was the psychological driving force behind Japan’s industrialization during the Meiji period.

The national slogan was *fukoku kyohei* which means “rich country, strong army.” In order to modernize Japan, the Meiji government had three goals:

- Industrialization (economic modernization)
- Introducing a national constitution and parliament (political modernization)
- External expansion (military modernization)

These were shared goals among all politicians, officials and even people. While there were many political struggles among Meiji leaders, they fought over the method of and prioritization in achieving these goals. For example, a politician might oppose his rival who advocated the invasion of Korea, but when the rival was ousted, the same politician might send troops to Taiwan (this actually happened in 1873-74). Similar flip-flop of positions was observed over many other political and economic issues.

The biggest headache for the Meiji government in its early years was the resistance from conservatives who disliked radical reforms. The previous samurai class, now deprived of their rice salary and the privilege of carrying swords, were particularly unhappy with the new government which was established, ironically, by young samurais. But step by step, the new government

succeeded in reducing their influence and consolidating power. It abolished the samurai class and offered them government bonds as a compensation whose value rapidly depreciated under inflation. Local autonomy under the han system was replaced by a centralized government and prefectures whose governors were appointed by Tokyo. A new land tax at the initial rate of 3 percent of the land value replaced the old rice tax which was levied on annual yield.

In 1871-73, a high-level official delegation called the *Iwakura Mission*, which included about half the cabinet ministers, was sent to the US and Europe for nearly two years. As it departed from Yokohama, the mission members counted 107 including the students dispatched abroad. Its purposes were to (i) conduct preliminary negotiations for revising the unequal treaties; and (ii) study Western technology and systems. They failed in the first objective because the West would not treat Japan equally as long as its institutions remained highly “backward.” But the mission succeeded in gaining insights in their second objective. The mission was warmly welcomed wherever they went.

3. Industrialization

Among the members of the Iwakura Mission, Toshimichi Okubo was particularly impressed with Western technology. Returning to Japan, Okubo vigorously promoted industrialization as the Minister of Finance (later, as the Minister of the Interior). His policies included hiring foreign advisors, the hosting of domestic industrial fairs, and the construction of roads, railroads and agricultural research centers. Many state-owned model factories were established in military production, silk spinning, shipbuilding and mining (most mines were rehabilitated mines from the Edo period). New systems, such as metric weights and measures, the Western calendar, a new monetary system, banking, and joint stock companies, were introduced. Okubo was assassinated in 1878 but his supporters, especially Kiyotaka Kuroda and Shigenobu Okuma, continued his policies.

Most state-owned enterprises (SOEs) were commercially unsuccessful, but they had strong demonstration effects on emerging Japanese entrepreneurs. These factories also trained a large number of Japanese engineers who later worked in or established other factories. Subsequently, these SOEs were



The Iwakura Mission in San Francisco. Tomomi Iwakura (mission chief, in Japanese dress) sits in center. Others are in Western clothes. Okubo is sitting on the right.

privatized except those producing military goods. They were sold “cheaply” to influential businessmen such as Tomoatsu Godai (see below), and this caused a political scandal in 1881. However, many of the previously loss-making SOEs were restored to profitability through restructuring and new investment by the new owners. It may be unfair to criticize these businessmen for stealing state assets.

The government sometimes confused businesses with inconsistent policies. But more often, it strongly supported the emerging private sector to establish domestic industries and drive out foreign rivals. This policy was called *yunyu boatsu* (import substitution). With official assistance, big business groups started to form. Politically well-connected businessmen were called *seisho* and their business groups were called *zaibatsu*. Some of them, for example Sumitomo and Mitsui, date back to the Edo period, but many others such as Mitsubishi, Furukawa, Yasuda, and Asano emerged during the Meiji period. Some big names included the following:

Yataro Iwasaki—He was a businessman from Tosa who started a maritime transportation company. Okubo’s government gave him support and monopoly so that he could drive out foreign shippers. Iwasaki made a huge profit with an exclusive contract with the government to provide military



Tomoatsu Godai was a seisho in Western Japan



Yataro Iwasaki, the founder of Mitsubishi Group

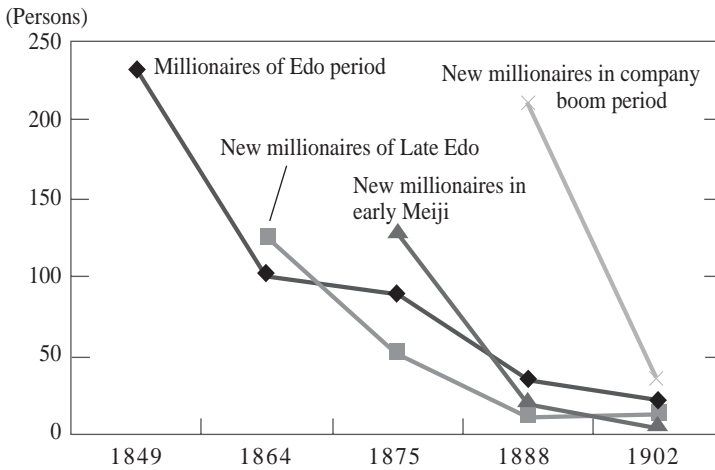
transport to Taiwan in 1874. Iwasaki was the founder of the Mitsubishi Zaibatsu whose business empire expanded to include coal mining, ship-building and, later, virtually everything.

Eiichi Shibusawa—Born in Saitama, first he was a bakufu retainer serving the last shogun, then an energetic official of the finance ministry of the new government, and finally a super coordinator of Japanese industries. Shibusawa helped to establish hundreds of joint stock companies such as Imperial Hotel, Nippon Usen, Nippon Steel, Bank of Tokyo, Osaka Spinning and Sapporo Beer, and economic and cultural institutions such as the Tokyo Chamber of Commerce, Imperial Theater, Japan Women’s University and Central Charity Association. However, unlike Iwasaki, he did not form his own zaibatsu.

Tomoatsu Godai—Godai was a business coordinator from Satsuma. Like Shibusawa, he also contributed to the creation of many companies and business organizations in Osaka.

Mitsui Zaibatsu—The Mitsui was a big merchant family in the Edo period. Its original business was trade in *kimono* (Japanese dress) and money-changing. In Meiji, the Mitsui family gained the status of a treasury depositary of the central government, which was very profitable, and succeeded in internal organizational reform. Banking, coal mining and trading (“Mitsui

Figure 3-1 Survival of Millionaires in the Late Edo and Meiji Period



Source: Computed from Miyamoto, 1999, p.53. Each line shows how many of the new millionaires emerging each period survived in later periods.

Bussan”) became the main business areas.

Sumitomo Zaibatsu—The Sumitomo group operated Besshi Copper Mine in Shikoku (Western Japan) during the Edo period. The old copper mine was modernized in Meiji. The business expanded to include coal mines, banking, electrical cables, fertilizer, etc.

Thus, the Meiji period saw the births of many business groups and enterprises which survived and prospered into the current period. At the same time, and somewhat contradictorily, the ups and downs of enterprises were extremely volatile from the late Edo to Meiji period. Economic shocks such as the beginning of international trade, demand shifts, foreign institutions and technology, and the great transformation of relative prices led to the replacement of old enterprises with new. Even influential merchants and large producers in the past failed to survive these shocks unless they could undertake bold reforms or build linkage with the emerging merchant class.

Figure 3-1 depicts the attrition of millionaires calculated from the national data in Miyamoto (1999). It is clear that the new rich of the late Edo to early Meiji period declined very quickly. The speed of disappearance seems even faster for the millionaires which emerged in the later periods. Among the 231 millionaires in the Edo period, only 20 survived into the late Meiji period.

This proves, at least in terms of the number of rich families, that the main driving force of Meiji industrialization was not the rich merchants from the Edo period.

4. The Constitution and Parliamentary Government

Politically, the establishment of a Western style parliament and constitution was a nationally-shared goal. This was considered absolutely necessary in order for Japan to be treated equally by the West. But different opinions over the timing and contents of the proposed constitution caused a lot of political turmoil.

With respect to timing, from 1873 onward, many political groups outside the government demanded a constitution as soon as possible. Political oppositions, intellectuals, and rich farmers joined this Freedom and People's Rights Movement, which spread to the entire nation. The government cracked down on this movement and the advocates of an early constitution also at times turned violent. Meanwhile, the majority of the top government officials wanted to go slow. They thought that the Japanese people were only "semi-developed" and that careful preparations were necessary.

As to contents of the constitution, an acute debate arose on the choice between a more advanced British-style democracy and parliamentary system and a less democratic German-style constitutional monarchy. Many intellectuals and progressive politicians favored the British system, but conservatives in the government preferred the German model. The latter feared that if too much freedom was allowed when people's political views remain primitive, violence and instability would result. They pointed to the violence that occurred in the aftermath of the French Revolution as a thing to be avoided at all cost.

In this regard, the difference of opinion between Toshimichi Okubo and Yukichi Fukuzawa is worth attention. After coming home from the official mission to America and Europe, Finance Minister Okubo submitted the *Proposal on Constitutional Politics* to the government in 1873 whose key arguments can be summarized as follows:

Democracy and monarchy each has merits and demerits. Ideally, there is no

doubt that democracy is far superior. But the actual working of democracy often falls into party politics, and even the tyranny of majority over minority in the worst case. On the other hand, monarchy functions well if the people are unenlightened and the monarch is excellent, but the citizens will suffer enormously if corrupt officials pursue their personal interests under a cruel ruler. In comparison with Britain, Japan still remains semi-developed and cannot rid itself of feudal customs. Monarchy is a thing of the past, but we are not yet ready for democracy. Moreover, the central government must have strong authority for the time being to carry out bold reforms. Thus, the most practical system Japan can now adopt is a constitutional government based on gradualism that matches the speed of social change. This means constitutional monarchy.

By contrast, prominent educator Fukuzawa argued basically as follows in his *Outline of the Theory of Civilization* (1875): Countries can be classified into civilized, semi-developed and barbaric, and Japan belongs to the second group. Democracy and monarchy each has merits and demerits. The highest priority for Japan at present is to avoid being colonized by Western powers and remain independent [up to here, his views are the same as Okubo's and hardly unique]. To achieve this great objective, Fukuzawa urges Japan to throw away past traditions and customs and vigorously introduce Western civilization. There are two aspects, physical and spiritual, to civilization. Physical is easy to copy while spiritual is difficult to internalize. In adopting these, Fukuzawa proposes to "pursue the difficult first and the easy later; by first reforming people's mind, then change politics and laws, and finally introduce tangible objects."

In other words, Okubo's strategy is to design new policies and institutions by taking people's backward spirituality as given, while Fukuzawa wants to transform the spiritual structure of the nation as a matter of priority. The contrast between the pragmatism of Okubo, the high official, and the idealism of Fukuzawa, the enlightenment thinker, is remarkable. Their debate is far from outdated today since it contains a fundamental question about the sequencing of economic development versus political modernization (democratization) in latecomer countries.

Under mounting popular pressure, Emperor Meiji declared in 1881 that a parliamentary government would be established within 10 years. To study and prepare the contents of the proposed constitution, Minister Hirobumi Ito

went to Europe for more than a year to consult German and British legal experts. After returning to Japan, his team drafted a constitution based on the German model while partially incorporating foreign advisors' opinions such as K.F.H. Roesler's. The final draft was submitted to the Privy Council, an organ newly created to study this draft, and debated in detail in closed sessions. The Meiji Constitution was promulgated in 1889 and, after an election, the first imperial parliament was convened in 1890. Japan became the first non-Western country with a functioning constitution (among the non-Western countries, Turkey also had a constitution but it was shortly suspended).

5. Foreign policy

The most important diplomatic goal in Meiji was to revise the unequal treaties with the West which lacked tariff rights and the right to judge foreign criminals. This was needed to regain national pride and join the ranks of the "first-class countries." But to succeed, westernization of Japanese society was considered necessary. To show that Japan was westernized, the government even built *Rokumeikan*, a state-run ballroom, and invited foreign diplomats and business people for evening balls³. This "excessive westernization" was criticized by nationalists and political opposition groups. Nevertheless, over time as Japanese modernization and industrialization proceeded in substance, treaty renegotiation became possible and the revision was accomplished. Tariff rights were partially regained in 1899 and completely restored in 1911. The court rights were regained in steps during 1894-99.

Another feature of Meiji diplomacy is expansionism. To protect political independence and national interests against Western intervention, it was considered necessary to construct a zone of influence around Japan. The government was eager to "open up" Korea, which was maintaining its closed-door policy, as Japan did previously, and conclude an unequal treaty in Japan's favor, just like the West did to Japan before. Naturally, Korea resisted. In 1873,

³ This western style ballroom was located in Hibiya, near where the Imperial Hotel now stands. Since foreign diplomats and business people lived mainly in Yokohama, the government even prepared a special late-night train from Shimbashi to Yokohama to bring them home after the ball.

military invasion of Korea was proposed but rejected within the Japanese government. In the following year, the government sent troops to Taiwan over an incident in which Okinawa fishermen were killed by the Taiwanese. These external expeditions were often planned to deflect the anger of former samurais who were deprived of rice salary and the privilege of carrying a sword.

In the 1880s Japan became more aggressive in its attempt to place Korea under its influence. Japan's rival was China (Qing Dynasty) which considered Korea as its protectorate. Japan started to intervene in Korea's internal politics and stage military provocation. This eventually led to the Japan-China War of 1894-95.

Soseki Natsume's lecture

Soseki Natsume (1867-1916) was and is the most popular novelist in Japan. His life largely coincided with the Meiji period. He was an expert in both English and ancient Chinese literature. His early novels were comical ("I am a Cat," "Bocchan") and sometimes romantic ("Sanshiro") or pedantic ("Kusamakura"). But his later novels exposed a dark side of modernized Japan, especially individuals who struggle under human limitations in modernized life without success ("Sorekara," "Mon"). Desperate love triangles were his favorite theme.

In his famous lecture, "Development of Modern Japan" (1911), Soseki warned his fellow Japanese against newly emerging complacency. In late Meiji when this lecture was delivered, Japan already had a parliamentary government and had recently won a victory over Russia, and industrialization was proceeding rapidly. But Soseki said that Japan's modernization was superficial.

Since Japan opened its ports to foreigners, Western impact transformed Japan completely. But all these influences originated in the West, and Japan only copied them passively without really digesting and internalizing them. The arrival of Western waves was too fast for the Japanese to make them their own. Forced absorption of foreign ideas and systems would make the Japanese nervous and unhappy, but there was no good solution to this problem. This was the essence of Soseki's message whose excerpts are quoted below. Soseki touched on the fundamental dilemma of Japanese identity which remains unsolved even today. In the 21st century, Japan is sometimes ill at ease in the company of the advanced Western nations, while unable to build true trust and friendship with its Asian neighbors.

"Development in the West is *endogenous*, while Japan's development is *exogenous*. Here, *endogenous* means emerging naturally from within, like a bud blooms into a flower in an outward motion, and *exogenous* means being forced to take a certain form because of external influences..."

"Western societies are evolving naturally but Japan after the Meiji Restoration and foreign contact is quite different. Of course, every country is influenced by its neighbors, and Japan was no exception. In certain periods, Korea and China were

models for us. But overall, throughout history, Japan was developing more or less endogenously. Then suddenly, after two centuries of isolation, we opened up and encountered Western civilization. It was a big shock we never experienced before. Since then, the Japanese society began to evolve in a different direction. The shock was so severe that we were forced to change directions...”

“Western tides dominate our development. Since we are not Westerners, every time a new wave arrives from the West we feel uneasy like a person living in someone else’s house. Even before we can grasp the nature of the previous wave, a new wave arrives. It is as if too many dishes are brought in and soon removed before we can start to eat. In such circumstances, people will inevitably become empty, frustrated, and worried.”

(Source: Yukio Miyoshi, ed, *Soseki’s Writings on Civilization*, Iwanami Bunko, 1986)

Chapter 4

Meiji (2): Importing and Absorbing Technology



The first steam locomotive made in Japan

1. The preview of Meiji industrialization

At the outset let us list the three salient features of Meiji industrialization:

- Very strong private sector initiative supported by appropriate official assistance
- Successful import substitution in the cotton industry
- Parallel development of the modern sector and the indigenous sector

These will be discussed more fully in this and the following chapters.

As noted in the previous chapter, one of the principal policy objectives of the Meiji government was rapid industrialization. While the official policies of introducing western institutions, building infrastructure, hiring foreign advisors, education and training, establishing SOEs and research centers, organizing trade fairs, assisting zaibatsu and so on were all important, it should be stressed that private sector dynamism was even more essential. At the top of the private sector, such powerful business men as Shibusawa, Iwasaki and Godai provided leadership, and large zaibatsu began to form. At the grass-roots level, new and old merchants, skilled engineers, proud craftsmen and rich farmers all over the country became the driving force of broad-based technical absorption. Without this private sector capability, even good policies would have failed to produce results.

It should be remembered that many contributing factors to industrialization were inherited from the previous Edo period. They included nationally unified markets, transportation and distribution networks, a strong merchant tradition, the development of financial services, a well-educated population, and a history of industrial promotion by local governments.

The cotton industry was one of the leading industries of the world in the 19th century. At first, British products dominated the global market. In Asia, India was the main producer. But Japan absorbed textile technology very rapidly and effectively. After the opening of ports, Japan first imported British cotton clothes. Later, it imported cotton yarns and wove clothes for the domestic market. By around 1900, Japan began to export cotton yarns while importing raw cotton. In the early 20th century, Japan became a major exporter of cotton clothes. Since today's dominant view in development economics discredits

import substitution as a failed policy, Japan's brilliant success as a latecomer more than a century ago is all the more striking.

However, the introduction of modern Western technology did not necessarily drive out traditional technology from the Edo period. In the cotton industry as well as in other industries, traditional production methods existed side-by-side with modern machines and factories. Sometimes the two sectors produced differentiated products for different markets. At other times they were vertically related with one sector producing inputs for the other. New technology influenced traditional methods, but local requirements also modified imported technology.

By the end of Meiji (1912), which was shortly before the outbreak of WW1, Japan was successfully industrialized in light industries, especially textiles. But heavy and machinery industries were still embryonic. The vigorous development of these industries started later, during and after WW1.

2. The macroeconomy and the industrial revolution in light industries

The Japanese economy underwent several stages after the opening of ports in the late Edo period. Let us briefly review this process.

- (1) *Initial impact of foreign trade (1850s-)*: foreign technology and products flowed in and shifts in relative prices and industrial structure occurred. Inflation was high.
- (2) *Monetary confusion and inflation (late 1870s)*: inflation accelerated due to the printing of paper money to finance a civil war initiated by Takamori Saigo's uprising in Kyushu in 1877. As the prices of rice and other agricultural products rose, farmers and landlords got rich while former samurais were generally impoverished.
- (3) *Matsukata Deflation (early 1880s)*: Finance Minister Masayoshi Matsukata adopted a deflationary policy to end inflation and introduce a modern monetary system. This included the establishment of the Bank of Japan as a central bank in 1882. Rural income declined and the number of landless farmers increased¹.
- (4) *First "company boom" (late 1880s)*: After inflation subsided and mod-

ern banking was installed, there was a rush to establish joint stock companies in the private sector. Exchange rate depreciation, easy money and low interest rates also encouraged their emergence.

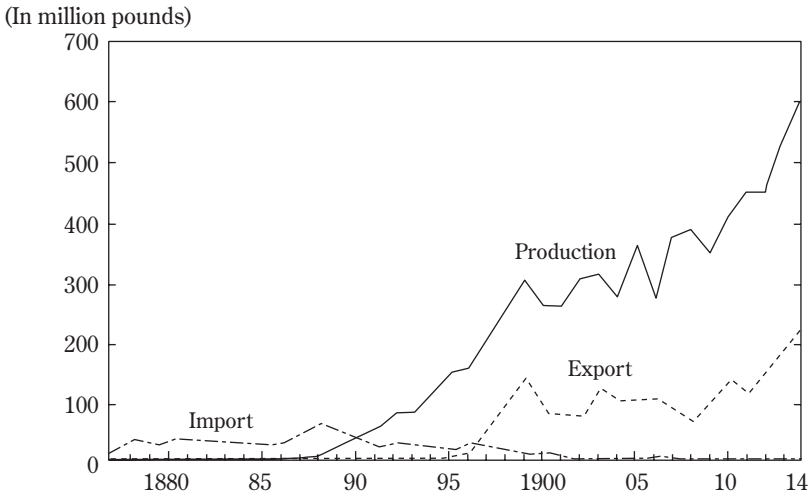
- (5) *Continued waves of company booms (1890s-1910s)*: A great number of additional joint stock companies were established in the late 1890s, late 1900s and during WW1 interrupted by occasional recessions. At first, these were concentrated in the textiles and railroad industries. Later, company creation spread to all sectors.
- (6) *Two wars (Japan-China 1894-95; Japan-Russia 1904-05)*: After each war, fiscal activism was adopted. Public investment was undertaken to build, for example, railroads and the national telephone network. Military spending was kept up even during peacetime. Economic management of Taiwan, a colony acquired in 1895, also began through institution-building and public investment. Local governments issued foreign-currency denominated bonds in order to invest in infrastructure for water supply, roads, education, and so on. As a result, the size of general government (the sum of central and local governments) expanded and the balance of payments deficit widened. Gold reserves (i.e. international reserves) were gradually lost, and the estimated debt-to-GDP ratio rose to about 40 percent. Roughly half of the public debt was denominated in foreign currency.

From the late Meiji period onward, the government of *Seiyukai* promoted fiscal activism. *Seiyukai* (full name: *Rikken Seiyukai*) was a political party established in 1900 with Hirobumi Ito, drafter of the Meiji Constitution and the first Prime Minister, as the party leader. *Seiyukai*'s main support base was rich farmers and landowners who desired active public investment in rural areas. But fiscal overspending led to mounting balance-of-payments pressure. Macroeconomic belt-tightening was felt necessary.

In reality, this macroeconomic crisis was suddenly overcome by the outbreak of WW1 rather than orthodox fiscal austerity. As the European powers

¹ Using an old-fashioned language, we may say that Matsukata Deflation created the basis of Japan's coming capitalism and industrial revolution by bringing out the proletariat class detached from production capital and establishing the modern banking system which is the basis of financial capital.

Figure 4-1 Development of the Cotton Industry



Source: *The National Statistics of Meiji and Taisho*, Toyo Keizai Shimposha, 1975.

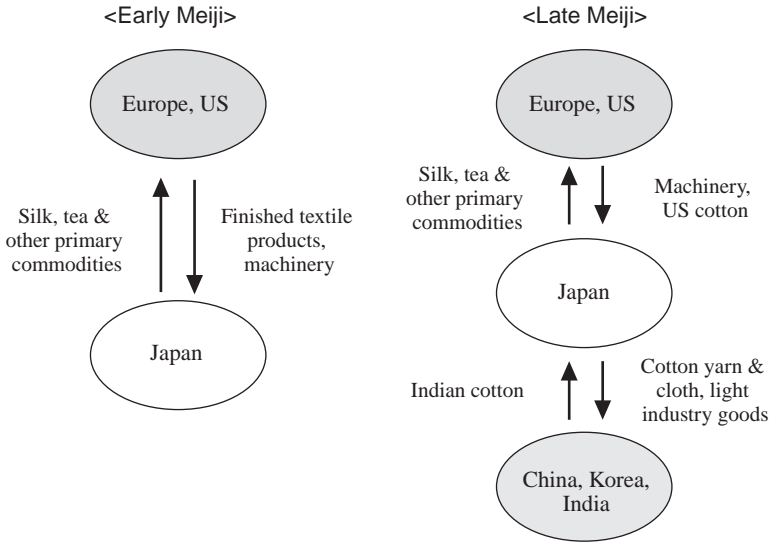
were engaged in military confrontation, they stopped exporting to the rest of the world. Suppressed world demand was directed to Japanese products, allowing the Japanese economy to enjoy an enormous export-led boom. But this occurred in the following Taisho period which will be discussed more fully in chapter 7.

No reliable GDP statistics exist for this period, but we have some estimates. According to them, output was very bumpy and the average growth rate was 2 to 3 percent. By today's standards, this is not a particularly high growth rate for a developing country although there may be a serious problem of data quality. As for the employment structure, the share of agricultural employment was dominant, at about 70 percent in the early Meiji period, but it gradually declined.

3. Developments in international trade

Regarding trade structure, silk—silk yarn rather than finished silk products—dominated Japan's exports followed by tea, cereals, seafood, minerals and coal. Clearly, Meiji Japan was a primary commodity exporter. Raw silk remained the top Japanese export not just during the Meiji period but in the entire pre-WW2 period. The largest importer of Japanese silk and tea was the

Figure 4-2 Trade Structure

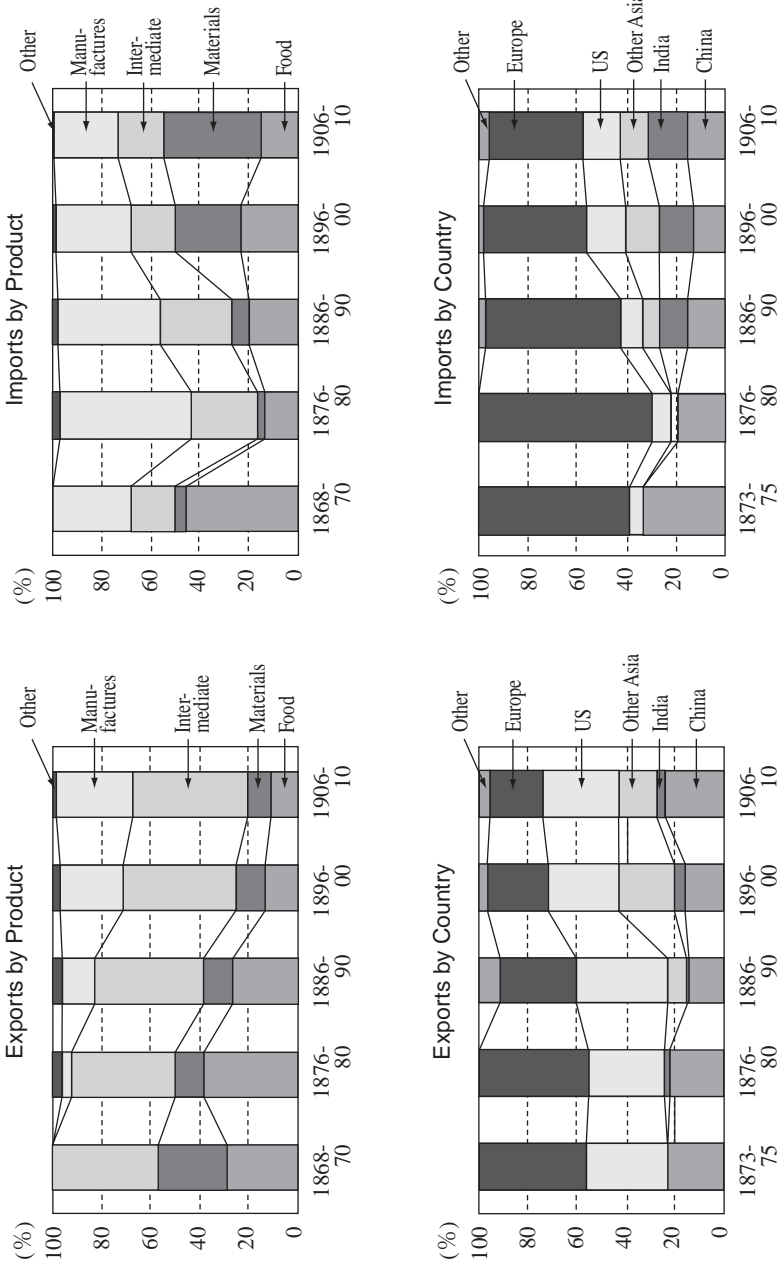


United States. Stockings made from Japanese silk were very popular among American ladies.

It should be noted that the US protected its silk weaving industry with tariff rates of 45 to 50 percent, but the industry needed silk yarn as an input. The American attempt to increase domestic silk yarn production failed, so the US was compelled to continue to import Japanese yarn. Generally speaking, as a young developing country the US maintained high import protection throughout the 19th century (see the box at the end of this chapter).

On the import side, dramatic shifts occurred as the cotton industry succeeded in import substitution as discussed above. Initially, finished products (clothes) were imported. Later, imports shifted to intermediate inputs (cotton yarn) and then to raw materials (raw cotton). In Figure 4-1, we can see a clear *product cycle* of this industry moving from import to domestic production and finally to export. Domestic production shifted from spinning to weaving as well as from low to high quality products. At first, Britain was the main exporter of finished textile products and machinery to Japan. But over time, Japan effectively increased competitiveness against British textile products and drove them

Figure 4-3 Structure of Export and Import



out of the Asian market.

In early Meiji, Japan's trade pattern was a “vertical” one typical of a developing country. It exported silk and other primary commodities to Europe and America and imported finished textile goods and machinery from them. By late Meiji, Japan developed a more complex trade pattern. Against Europe and the US, trade remained basically vertical. But with the rest of Asia, which included China, Korea and India, Japan began to export light industry goods such as cotton yarn, cotton clothes, matches, umbrellas, clocks, lamps, glass products, knitwear, and so on, and import materials needed to produce them, especially Indian raw cotton which was short-fiber cotton. Japan also imported US cotton which was long-fiber cotton. Due to the emergence of Japan's cotton industry, India was driven out of the position of an exporter of cotton products into an exporter of raw cotton.

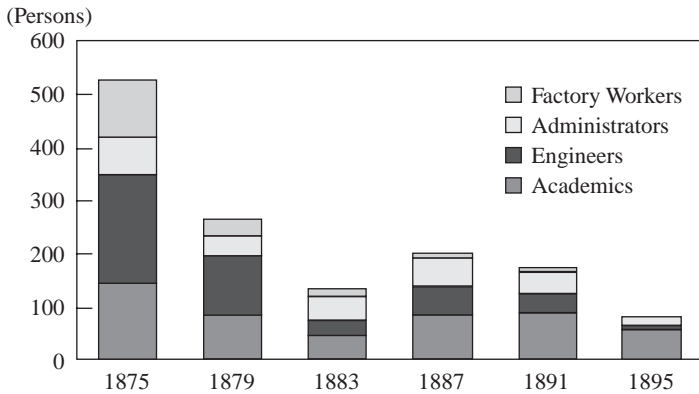
As the export of cotton yarn and the import of raw cotton both rose, the government abolished the cotton yarn export tax in 1894 and the cotton import tariff in 1896. This benefited modern cotton factories which used Indian cotton as inputs, but hurt traditional producers who spun domestically produced cotton. In order to establish a monopolistic position in importing Indian cotton, Japanese textile companies formed a cartel and used only Nippon Yusen (a Mitsubishi-group shipping company) and Menka (cotton) Shosha as the sole carrier and distributor of Indian cotton to Japan. This secured a stable supply of Indian cotton at low prices for Japanese textile companies.

4. How Western technology was transferred

Western technology was imported and internalized in three distinct ways.

- (1) *Hiring of foreign advisors*: In early Meiji, new factories and infrastructure were constructed and operated with a significant assistance from foreign engineers and managers. In the late 19th century, there were many unemployed British railroad engineers since the British railroad system had been more or less completed. They often traveled abroad in search of jobs. The salaries of foreign advisors were very high and sometimes even higher than that of the Prime Minister. This became a

Figure 4-4 Foreigners Employed by the Meiji Government



Source: Kajima Institute Publishing, *Hired Foreign Workers*, 1968.
 Note: Numbers exclude private-sector employment.

Table 4-1 A Salary Comparison: Foreign Advisors and Prime Minister

Person	Position	Monthly salary
Mr. Cargill (British)	Advisor to the Railroad Department, Ministry of Industry	2,000 yen
Mr. Kindle (British)	Advisor to the National Mint, Ministry of Finance	1,045 yen
Mr. Morrell (British)	Advisor to the Railroad Department, Ministry of Industry	850 yen
Mr. Kiplon (American)	Advisor on the development of Hokkaido	833 yen
Tomomi Iwakura	<i>Udaijin</i> (equivalent to Prime Minister); chief of Iwakura Mission to US and Europe	600 yen

Source: S. Sakamoto and T. Fukuda, eds, *Shinsen Nihonshi Zuhyo* (New Selection of Diagrams in Japanese History), Daichi Gakushusha, 1998.

great financial burden on the government. For example, the salaries of foreign engineers accounted for 34 percent of the current budget of the Ministry of Industry in 1874. Figure 4-4 indicates the number of foreigners employed by the central and local governments. Their number—especially the number of engineers—declined significantly toward the end of Meiji. From the mid Meiji onward, foreign teachers,

including language teachers, hired by private organizations (not shown here) became the dominant form of foreign employment.

Different technological transfer schemes were adopted depending on the project type, including turn-key contracts, management contracts, and technical advice. However, unlike today's developing countries, there was virtually no foreign direct investment (FDI) in the Meiji period regardless of whether they were 100 percent foreign-invested or jointly managed by foreign and local partners. Since contracts that the government signed were project-specific and had fixed terms, foreigners returned home when the contract expired. The government took utmost care to avoid important national projects, such as mines, railroads and shipyards, falling into foreign hands. Japan was even afraid of borrowing from foreigners, especially in early Meiji.

- (2) *Training Japanese engineers*: Since foreign advisors were too expensive, the government vigorously promoted “import substitution” by Japanese engineers. Excellent students were nominated by the government to go abroad to absorb latest ideas and technology at the first-rate universities in Europe and America with financial support from the Japanese government (however, the amount of scholarship was not very large). Domestically, *Kobu Daigakko* (Institute of Technology) was established as the highest academic institute for absorbing technology in 1877, where foreign professors taught in English and German. This institute was originally located where the Ministry of Finance now stands in Kasumigaseki, Tokyo, but it was later merged into the Faculty of Engineering of Tokyo University. In addition, technical high schools were created all over the country to produce a large number of mid-level engineers. This no doubt greatly increased the technical absorptive capacity of the country. However, according to Konosuke Odaka (2000—see below), traditional craftsmen were more influential on the factory floor than newly trained engineers during much of Meiji.
- (3) *Copying, licensing, technical cooperation*: Graduates from *Kobu Daigakko* played an instrumental role in selecting and importing new technology. In economic ministries and private firms, they took initiative in collecting information, purchasing machines, and adjusting

them to Japanese requirements. Many US and European machines were copy-produced by reverse engineering (however, this is illegal today under WTO and TRIPS rules). Trading companies, such as Mitsui Corporation and Takada Shokai, provided customers with product information and technical assistance. Later, in the early 20th century, a number of automobile and electrical machinery companies signed licensing agreements and technical cooperation contracts with Western firms. However, in such cooperation the Japanese partners quickly absorbed new technology and often dissolved the relationship with the Western partner shortly after.

Japan is said to be a country of *monozukuri* (manufacturing things). In many European countries including Britain, engineers who worked in oily factories did not have high status compared with managers, lawyers and accountants who worked in clean offices. But in Japan, university graduates loved to build, adjust and repair machines and manage factories. They had no problem with working side by side with machine operators. This was true in Meiji as well as until recent past. Best students chose engineering, rather than law or economics, as their field of specialization. However, this *monozukuri* tradition may be eroding in today's Japan.

5. Hybrid technology

Professor Konosuke Odaka (1990) of Hosei University argues that Meiji industrialization was achieved by combining existing traditional technology and imported Western technology in an appropriate manner. He calls this “hybrid technology.” Although Western technology was far superior to Edo technology, the former did not completely replace the latter. This can be considered as one example of the “translative adaptation” introduced in chapter 1.

According to Professor Odaka, different types of industrial evolution can be identified. In the Figure 4-5 below, intermediate points such as I* and M* can be called hybrid technology² (M stands for “modern,” I stands for

² Takafusa Nakamura (1997), Professor Emeritus at Tokyo University, proposes the concept of *new indigenous industry*, which is an indigenous industry modified by Western technology. This corresponds to I + I* in Professor Odaka's terminology.

Figure 4-5 Technology and Factory Size

		Factory size	
		Small	Large
Technology	Indigenous	I	I*
	Modern	M*	M

Source: Odaka, 1990, p.336.

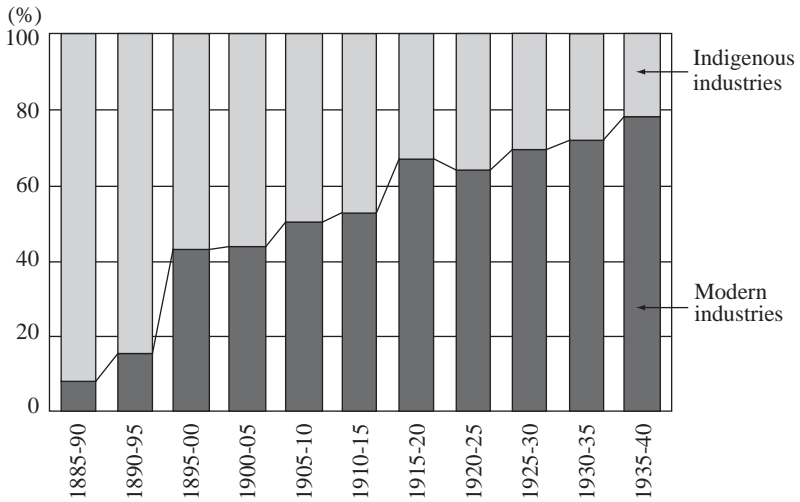
Note: * indicates hybrid status.

“indigenous” and the asterisk means modified).

- M → M — For a completely new technology, the Western model must be imported as a whole; there was no corresponding traditional technology (e.g. railroads, telephone system, electrification)
- I → I* → M — Indigenous technology was first adjusted and expanded. Later, there was a switch to a new Western method (e.g. shipbuilding, sake making)
- I → M* → M — Indigenous technology was first replaced by Western technology but at a small scale that fitted Japanese reality. Later, the size was expanded (e.g. printing, machinery)

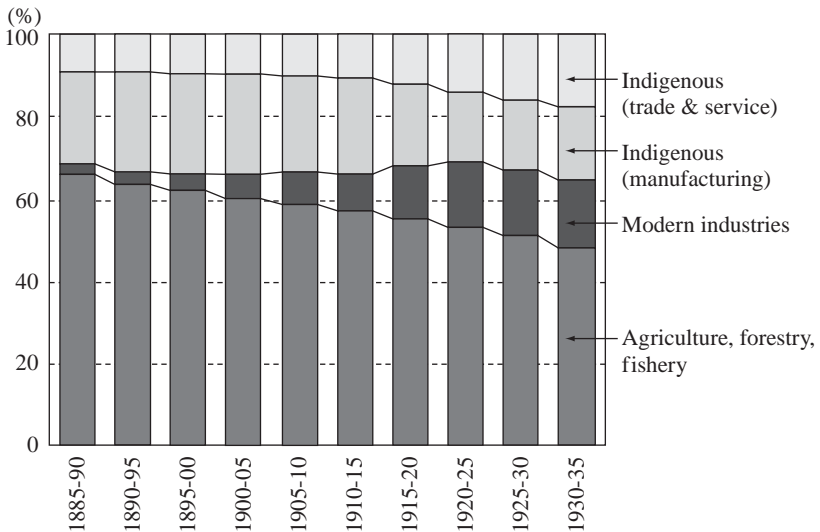
In addition, indigenous and modern technology often co-existed because they played complementary roles in vertical industrial linkage, namely, one industry producing the input to the other, or because their markets were differentiated, for instance, modern plants producing for export while traditional ones serving the domestic market. As Figures 4-6 and 4-7 illustrate, despite the steady growth of modern industries from Meiji to early Showa measured by output, it was not the largest part of the Japanese economy as far as employment was concerned. The largest absorber of labor force still was the primary industry whose share, however, was gradually declining. The share of employment of indigenous manufacturing and service remained relatively stable at slightly over 30 percent.

Figure 4-6 Manufacturing Output in Pre-war Japan



Source: Matsumoto and Okuda, 1997.

Figure 4-7 Employment Structure of Prewar Japan



Source: Matsumoto and Okuda, 1997.

Meiroku Zasshi

Mei is the first syllable of Meiji. *Roku* means six. *Zasshi* means journal. Meiroku Zasshi (Journal of the Sixth Year of Meiji) was a series of publications by Meirokusha (Society of the Sixth Year of Meiji) in 1874 and 1875. Meirokusha, in turn, was a free discussion forum founded in 1873 by Arinori Mori, who later became the first education minister. Meiroku Zasshi was a collection of relatively short essays covering a wide variety of issues, such as lessons from Western history, proposals for reforming the Japanese language, religious questions, social policy, and economics. At the outset of each issue, the following message was printed in archaic Japanese:

Recently, we friends gathered to discuss social issues and foreign situations in order to deepen our knowledge and enjoy high spirits. As meeting records have accumulated, we have decided to publish and share them with our colleagues at large. While it is only a small booklet, we would be happy if it helps to improve the knowledge of the Japanese people.

As an example, here is the summary translation of “The Argument Against Tariff Protection” by Mamichi Tsuda (1829-1903), a scholar in Western studies. This article was published in the fifth volume of Meiroku Zasshi on April 15, 1874.

Our trade deficits were 8 and 7 million yen in 1872 and 1873, respectively. In addition, we pay 2 million yen annually as salary for foreign advisors and teachers. This means that gold and silver flow out of Japan at the rate of roughly 100 million yen every decade. Our international reserves may be exhausted in one or two decades.

Pessimists say, “If we lose precious metals like this, how can Japan survive? We must stop this outflow. Europe used tariff protection in the past. The US is still practicing it. We must also adopt this policy.”

I disagree with this idea. European economists state clearly that protection is the worst policy which harms the nation’s welfare. The US is still resorting to tariff protection because American industries are less developed than European, with higher cost. Therefore, Americans levy high tariffs on imported goods to promote domestic industries.

But the development level of Japanese industries is far below that of American. Needless to say, comparison with Europeans is out of question. It is like a small baby trying

to compete with a giant. That is why we have to pay 2 million yen for foreign teachers. Evidently, copying American policy is not suitable for Japan. More specifically, there are several reasons why tariff protection is undesirable.

First, commercial treaties with the West prohibit raising our tariffs.

Second, there is a huge gap in technology between Japan and Europe. For example, the price of domestic steel is higher than imported steel even after paying the transportation cost. Protection is not enough to narrow this gap.

Third, Japanese people now like to consume a wide variety of imported products such as food, clothes, household goods, and so on, for which domestic supply is nonexistent. For many goods, no Japanese factories can produce them.

Fourth, under the policy of rapid Westernization, a large amount of imports is hardly avoidable.

Fifth, Japan is a student learning Western knowledge and technology. To study more and faster, we need to pay high tuition.

Some say, "If we do nothing, we will lose all international reserves soon." But don't worry. The trade balance may be in surplus or in deficit in the short run, but there will be no great imbalance on average. The movement is natural and cyclical. When we first opened our ports, we had trade surpluses for a few years. Then, imports exceeded exports for the next three to four years. It is certain that we will have surpluses again in the near future. The natural balance is always maintained, and this is the condition under which technology and civilization should progress.

Meiroku Zasshi was Japan's first modern scholarly journal which greatly stimulated policy debate among intellectuals. However, the journal was terminated by the government order under the tightened speech control in November 1875. Its publication lasted only one and half years.

Chapter 5

Meiji (3): Development of Major Industries



The model of the traditional, manually operated *Garabo* spinning machine, 1873.



Modern Ring spinning frame made by Platt, U.K., 1896.

In this chapter, we will examine three important industries in detail. As noted earlier, *raw silk* was the top export commodity throughout Meiji and beyond. The *cotton industry* was the most dynamically emerging manufacturing industry; it successfully achieved import substitution and became Japan's major industry far beyond Meiji. Meanwhile, the *machinery industry* was taking root but still relatively weak. During Meiji, Japanese machines were cheap but in low quality, and could hardly compete with American or European products.

1. The silk industry

Silk production has been a traditional industry in Japan dating back to ancient times, perhaps to the 4th or 5th century AD. During the Edo period, many hans produced cloth and kimono made of high quality silk. When Japan opened its ports and resumed foreign trade in the mid 19th century, Japanese silk suddenly found an enormous overseas demand, especially in the United States. This silk boom had several important effects.

First, naturally, silk production—mulberry cultivation, silkworm raising and silk spinning—was greatly stimulated and spread to all over Japan, especially in the eastern regions. Virtually all farmers and villages which could produce silk tried to do so. This raised rural income significantly. Today, you can hardly see mulberry trees or silk production in Japan. But in those days, they were observed everywhere.

In many developing countries today, rapid industrialization and external liberalization often impoverish farmers and widens the income gap between urban rich and rural poor (UNCTAD, 2004). In the case of Meiji Japan, however, international integration did not increase the income gap thanks to the silk boom. The tea export boom and rice inflation also contributed to this trend. But at the same time, rural prosperity now depended critically on the price trends of primary commodities such as silk and rice. When these prices were high, enriched farmers and landowners enjoyed higher consumption, low tax rates (since the amount of land tax was nominally fixed) and staged a political movement demanding a national constitution and criticizing the government. When these prices plummeted, however, their movement lost momentum and many indebted farmers became landless. This can be called the risk of international

integration arising from domestic and global market fluctuation, which is present in any country even today.

Second, a new class of merchants emerged. As foreigners were confined to the designated foreign settlements and their surrounding areas (the largest foreign settlement was Yokohama), they could not build their own distribution network in Japan (this would violate the requirement of national treatment under WTO today). Thus they had to rely on Japanese merchants to procure silk and tea for export and supply British clothes to local markets. Japanese merchants who played this role were often new people unconnected with big merchant families in the Edo period. They communicated price information, provided short-term trade credit to producers, established marketing channels, and even assisted in installing new machines and acquiring new technology. Those who did business directly with foreigners were called *Yokohama merchants*, but there were also other types of new merchants as well. Renowned silk-producing localities included Nagano, Yamanashi, Gunma and Tohoku Region (all Eastern Japan) where merchants played critical roles in restructuring the producers. When successful, merchants made huge profits together with producers. Quick and spontaneous emergence of a merchant class with highly productive functions as described above, instead of simply exploiting producers, was a unique Japanese feature not always visible in other countries.

To be fair, however, it must be said that Meiji merchants were far from perfect. Foreigners often bitterly complained about the dishonesty and corruption of some Japanese merchants. Silk was sold by weight, so water was often added before weighing. Foreigners had to check if the merchandise was dry inside. At one time, the quality of Japanese silk became so low that its demand and price fell significantly in the global market. In response, the government was forced to impose quality standards.

Third, continued silk exports were accompanied by the transformation of production methods and organization. Manual labor was gradually replaced by machine spinning ($I \cdot M^*$; see chapter 4 for notation). At first, silk production used to be farmers' side job, but later it was undertaken by factories ($M^* \cdot M$). More precisely, silkworm raising still remained family-based and decentralized across the country, but silk spinning became automated in modern factories.

Silk remained the top export item for nearly a century. Silk exports were a stable source of foreign exchange for Japan, contributing to industrialization.

2. The traditional cotton industry

Roughly speaking, the production of cotton contains the following steps: (i) cotton harvest; (ii) ginning and cleaning; (iii) spinning (yarn); (iv) weaving (cloth); and (v) sewing and cutting (garment). Other processes such as dyeing may be added. As Konosuke Odaka emphasized (chapter 4), indigenous and modern sectors often co-existed in Meiji industrialization, and the cotton industry was no exception. For this reason, we will discuss the traditional and modern cotton industry separately. This section looks at the traditional production.

Like silk, the cotton industry has a long history in Japan. But the indigenous method of using wooden looms and household labor was far less productive than Western technology. The traditional production was often organized as a *putting-out system*, where a merchant had contracts with individual farm households to produce specified goods. The merchant provided all materials and sometimes even tools, received finished products and paid commission. Production took place in each farmer's house using family labor (usually that of the wife). The question is: how could this antiquated mode of production survive the onslaught of British imports and modern technology? Why were they not wiped out?

There are several reasons. First, domestic demand for cotton products rose so fast that, while imports increased, domestic production could also expand. Domestic demand was rising because (i) farmers were enriched by the silk and tea booms as noted earlier, and they switched from homemade or second-hand clothes to external purchase; (ii) new merchants succeeded in establishing a nationwide sales network; and (iii) the price of clothes relative to the general price level declined, which further stimulating demand.

Another important reason was that Japanese and British cotton products were differentiated and not easily substitutable. Japanese cotton used low-count fibers and was thicker, while British cotton used high-count fibers and

was thinner. These products had different uses and did not compete directly. This is a point much stressed by Kawakatsu (1991).

However, even though the traditional cotton industry survived, the impact of international integration significantly reorganized its production. Vertically integrated producers which combined the production of raw cotton, yarn and fabric declined, while specialized weavers using imported yarn prospered. Demand for plain white cloth fell while high-value, more differentiated products such as creased, patterned and colored cotton found a larger customer base. Some cotton villages disappeared while new ones popped up. Whether or not traditional cotton regions survived the integration shock depended very much on the existence of helpful merchants who introduced imported materials and developed new domestic markets for the producers (Saito and Tanimoto, 1989). Again, the merchant's role was essential in adjusting to a new environment.

Toward the end of the Meiji period, machines began to be introduced even in the traditional sector. This was prompted by the need to improve efficiency in the face of (i) rising wages; (ii) the worsening of the *terms of trade*, namely, the falling price of output (fabric) relative to input (yarn); and (iii) textile recessions. Even though machines were introduced, they were not exactly the same as the Western original. Production scale was smaller and modifications were often made, including the use of as much wooden parts as possible in place of steel. These can be considered modifications of the indigenous method (I → I*).

3. Modern cotton industry

We now turn to the modern cotton industry. This industry had to be introduced as an entirely new technology (M → M).

In early Meiji, Japan imported a large amount of cotton yarn as an input to domestic cotton cloth production. The government considered *yunyu boatsu* (import substitution) of cotton yarn to be an important national goal. Model factories in cotton spinning were established in the 1870s, but these state-owned enterprises (SOEs) did not succeed commercially. The reasons for the failure included: (i) lack of capital; (ii) small capacity of only 2,000 spindles; (iii) use of water power which was constrained by location and operation

time; and (iv) lack of expertise.

The turning point came when the private Osaka Spinning Company (*Osaka Boseki Kaisha*) was established in 1883 by the strong initiative of Eiichi Shibusawa, the super businessman (chapter 3). Worried about rising cotton yarn imports, Shibusawa decided to create a new company that could overcome the defects of SOEs. In particular, Osaka Spinning Company introduced the following innovations (Abe, 1990):

- It was a joint stock company subscribed by big merchants and former daimyos who were personally persuaded by Shibusawa to invest. As to working capital, loans from the First “National” Bank, at which Shibusawa was the president, were made available.
- It boasted a sufficiently large capacity of 10,500 spindles to enjoy economies of scale.
- Use of the steam engine which permitted 24-hour operation.
- Located in an urban area, which facilitated worker recruitment.
- Takeo Yamanobe was hired as chief engineer (see box below).
- Use of low-cost Chinese cotton instead of domestic cotton.
- Use of more advanced machinery, especially the adoption of the Ring model rather than the Mule model.

Osaka Spinning Company was an instant success. Although 1883, the year of its establishment, was a recession year (Matsukata Deflation, chapter 4), the company was profitable from the outset. The lesson we can draw from the experience of Osaka Spinning Company is that competitiveness depends critically on the choice of appropriate technology which includes the size, location and mode of operation. In addition, the combination of strong managerial leadership (Shibusawa) and deep practical knowledge (Yamanobe) was instrumental. Without these, purchasing expensive machines alone would not have achieved efficiency.

The success of Osaka Spinning Company had a powerful demonstration effect. Soon, several spinning factories modeled after Osaka Spinning Company were established. Largest among them were the spinning companies of Hirano, Amagasaki, Settsu, and Kanegafuchi (later renamed to Kanebo). These large-scale cotton spinning factories were concentrated in the Kansai area in Western Japan. Initially, the product of these companies (i.e. yarn) was sold



Modern Spinning—The Sangenya Factory of Osaka Spinning Company in late Meiji.

to domestic traditional weavers and contributed to import substitution. Later, their product was also exported, as well as used internally to weave cloth within these factories. Young female workers were recruited to work in these factories often under inferior working conditions. Factories competed fiercely to hire and keep these workers. As to competent engineers, they were in even greater shortage.

As the modern cotton industry became the pillar of Japanese manufacturing, it faced two problems. The first was the recession which peaked around 1900 forcing even large factories to restructure, merge or even close. The number of modern spinning factories declined from 78 in 1899 to 49 in 1904. After the shakeout, the three largest spinners, Osaka, Toyobo and Dainihon, began to dominate the industry.

Another problem was the conflict of interest between ownership and management. The shareholders of spinning companies were rich merchants and former daimyos who were not interested in the textile business per se and only wanted quick and high returns on their investment. By contrast, top managers and high-level engineers were well-informed about technology and market conditions. Their priority was to expand the business in the long run through investment and technical innovation. Thus, the former demanded large dividends while the latter preferred retained profits for re-investment. This tension sometimes escalated to the level where shareholders demanded the resignation of the management.

4. The machinery industry

Meiji industrialization was basically light industry industrialization, especially in textiles, while the machinery industry was still feeble and internationally uncompetitive. Japanese machines were imitations of western models. In Meiji, “Made in Japan” meant low price and low quality. The machinery industry still heavily depended on foreign technology and imports. During Meiji, machinery was only imported; there were virtually no exports. Nevertheless, technology was being absorbed, and preparation for the giant leap in the Taisho and Showa periods was being made (Sawai, 1990).

Initially, military SOEs dominated the machinery industry. Backed by the government, they were large in size and equipped with the newest machines imported from Europe and America. By contrast, private companies were smaller and less modern, and used second-hand or Japanese machines.

But private-sector manufacturing was also growing, albeit gradually. Largest among private companies were shipyards and railroad carriage factories. Medium-sized ones included electrical companies such as Shibaura (now Toshiba), NEC, Oki and Hitachi. Meanwhile, small companies produced various parts and devices. The input-output linkage between large and smaller firms was still weak. Large factories imported most machines and produced the remaining machines and inputs internally. Domestic procurement from other Japanese companies was insignificant at first. In other words, *supporting industries* did not exist during Meiji.

Engineers preferred to move among factories for experience and skill building. Inter-firm migration of engineers facilitated technology transfer and absorption. Graduates from the Institute of Technology and technical high schools (chapter 4) first worked at SOEs or at relatively large private companies. After acquiring skills and knowledge, many of them moved to smaller private companies or established their own factories. In this way, Western technology was diffused widely within the machinery industry.

In Tokyo and Osaka, small and medium enterprises (SMEs) began to be concentrated in certain areas and formed industrial districts. They tended to gather around large factories. In Shiba area in Tokyo, near Tokyo Tower and Hamamatsu-cho Station today, large factories such as Shibaura Engineering

Table 5-1 Largest Factories by Employment Size (1902)

Ranking	Enterprise	Number of workers	Ownership
1	Kure Naval Factory	12,378	State
2	Yokosuka Naval Factory	6,761	State
3	Tokyo Military Factory	6,452	State
4	Mitsubishi Shipbuilding	5,058	Private
5	Sasebo Naval Factory	3,612	State
6	Osaka Military Factory	3,120	State
7	Kawasaki Shipbuilding	3,060	Private
8	Shimbashi Factory (railroad cars)	1,721	State
9	Japan Railroad Omiya Factory	1,700	Private
10	Osaka Steel	1,623	Private
11	Kobe Factory (railroad cars)	1,566	State
12	Uraga Shipbuilding	1,522	Private
13	Naval Weapons Factory	1,521	State
--	Shibaura Engineering Works (Toshiba)	502	Private
--	Seikosha (Seiko Corporation)	211	Private
--	Nippon Electric Company (NEC)	150	Private

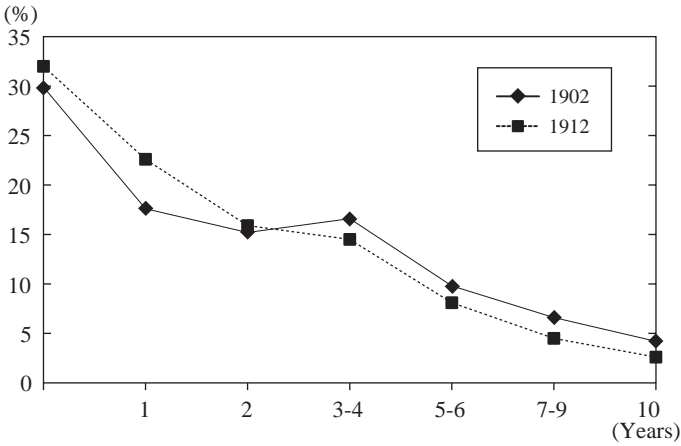
Source: Sawai, 1990, p.221.

Works (private; “Shibaura” means Shiba Beach), Naval Weapons Factory (SOE) and Mita Manufacturing (SOE) were located. Around them, private companies were established to produce mechanical devices and parts¹. Another industrial district in Tokyo was the Honjo-Fukagawa area on the left bank of the Sumida River. This district specialized in metal products like nuts, bolts, springs and so on. In these industrial districts, SMEs not only competed but also cooperated with each other. If one factory did not have the right machine to do a certain work, it was possible to ask the neighbor to do it, and vice versa. Some of the SMEs became subcontractors of larger firms. However, the accounting method of SMEs long remained imprecise and pre-modern.

Japanese managers and engineers were generalists rather than specialists, and job-hopping was very common. Workers were also characterized by their lack of discipline and low savings. The Japanese labor force at that time was more “neoclassical” and quite different from the labor force in the post

¹ Later, in 1939, Toshiba was created by merging Shibaura Engineering Works and Tokyo Electric. Even today, one can see Toshiba Head Office from *Yurikamome* train; that is where Shiba industrial district used to be. However, the area was completely destroyed by the earthquake in 1923 and the US aerial bombing in 1945, so no sign of Meiji industrialization remains.

Figure 5-1 Duration of Male Employment in Manufacturing



Source: Sawai, 1990, p.218.

WW2 era. To further promote industrialization, Japan had to transform these light-footed engineers and workers to stay in one factory in order to absorb and develop firm-specific knowledge and skills. Japan later succeeded in doing this during war time (1937-45)—see chapter 9.

Let us look at some of the large private firms.

5. Railroad carriages and locomotives

Railroad carriages and locomotives are quite different in their required technology. The latter are far more difficult to manufacture than the former. As for carriages, about 25 percent was imported and the rest was domestically produced throughout Meiji. Among domestic producers, Shimbashi Factory (SOE) and Kobe Factory (SOE) were the largest, which together accounting for 64 percent of domestically produced carriages.

As for locomotives, all had to be imported at first. The government wanted to promote domestic production (i.e. import substitution). In 1900, the first locomotive was test-produced through the cooperation of the state and private sector. Shimbashi Factory, an SOE, provided the blueprint to Japan Railroad and Kansai Railroad (two private companies), and engineers were mutually exchanged. In 1912, the Railroad Agency nominated four private companies

to copy-produce locomotives. But since these companies were still technically incompetent, the government provided them with technology, material inputs, production management, training (which included opportunities to study abroad), and the promise of official procurement. Hence the market was secured. In this way, the government pampered the burgeoning railroad industry which, thanks to such assistance, eventually came to possess world-leading technology during the inter-war period.

During the Meiji period, both state-owned and private companies laid railroads. However, in 1906, the government nationalized virtually all railroad companies. Nationalization was carried out partly for military reasons and partly because many of the private railroad companies were unprofitable. One serious problem with railroads was over-building; local politicians maneuvered to construct too many railroads to please rural voters for the next election. This kind of vote-buying remains a big problem even today.

6. Shipbuilding

Among domestic shipyards, Mitsubishi Shipbuilding in Nagasaki (private) and Kawasaki Shipbuilding in Kobe (private) dominated. Both were former SOEs sold to influential businessmen. In the early days, ship repairing was more profitable than building new ships.

About half of the newly built ships were purchased by domestic private customers. The rest were produced for the navy or exported to China, Thailand, and other countries. The government supported the shipbuilding industry by offering subsidies for building large-sized ships above 700 tons (later, above 1,000 tons). The construction of naval ships was not very profitable but the government supplied materials for them. Due to the lack of supporting industries, shipbuilders produced most parts internally.

7. Electrical machinery

Shibaura Engineering Works (later Toshiba) was founded by Hisashige Tanaka, the inventor. Initially, it was a relatively small operation with 502 workers, producing military goods. When naval factories stopped procuring

from Shibaura since they now could produce the parts internally, Tanaka's factory shifted to the production of electrical machines for private use such as generators and transformers. When Shibaura Engineering Works faced a financial crisis, Mitsui Zaibatsu came to the rescue. Shibaura also established business cooperation with General Electric (USA). Similarly, Mitsubishi Electric Company cooperated with Westin House (USA) and Furukawa Electric Company cooperated with Siemens (Germany).

Even with efforts for domestic production, imports still dominated the Japanese market of generators and transformers. Foreign products, mainly from the US, accounted for about 75 percent of the total in 1911. Toshiba's market share was 16 percent and concentrated in low capacity generators compared with US products.

There was a debate within the Japanese government as to whether the national telephone network should be laid privately or publicly. The government finally decided to build it by itself. The supply of telephone equipment was considered highly lucrative. To win this business, Oki Electric was approached by Western Electric to produce needed equipment but Oki refused. Western Electric then set up Nippon Electric Company (NEC), a joint venture with Japanese partners, in 1898 with the capital share of Western Electric being 54 percent. Oki and NEC subsequently competed for the official procurement of telephone equipment.

NEC was initially only a sales agent for Western Electric products, but soon began to produce its own products and became more independent from Western Electric. NEC's success was due to foreign technology and capital, secured markets through government procurement of telephone equipment, and the company's high technical absorptive capacity.

Shibusawa and Yamanobe

In 1877, Takeo Yamanobe was a 26-year-old student majoring in economics and insurance theory in London. One day he received a letter from an unknown gentleman in Japan. The sender's name was Eiichi Shibusawa. The letter said something like this: "Dear Yamanobe, your name was mentioned by a friend of mine. Japan imports too much cotton yarn today. We need to establish a domestic spinning industry. We need people who know both management and technology. Will you please study the cotton industry? I will create a company."



Eiichi Shibusawa (1840-1931)



Takeo Yamanobe (1851-1920)

Perhaps Yamanobe was annoyed. Who is this man to tell me to change my subject? But after thinking a bit, he decided to follow Shibusawa's advice. He went to King's College where he studied textile industry theory. But theory alone was not enough. He moved to Manchester, the capital of global textile industry. He posted ads in newspapers: HIRE ME AS COTTON INDUSTRY TRAINEE, WILL PAY, but no company responded. Finally, he met Mr. W. E. Braggs who allowed him to work and absorb practical knowledge in his factory for eight months. Learning included technology, marketing and shipping. He worked very hard. Shibusawa sent him 1,500 yen to support the study. Shibusawa later recollected that this was a huge sum even for him and he sent it as if he jumped off the stage of Kiyomizu Temple (a phrase implying a bold and risky decision).

When the study ended, Yamanobe placed an order to buy textile machinery and

steam engines from manufacturers such as Platt and Hargreaves, and returned to Japan. In 1882, Shibusawa and Yamanobe selected an appropriate factory site. To establish the company, 250,000 yen was collected from rich merchants and friends of Shibusawa. Shibusawa's bank, First National, would lend working capital. Osaka Spinning Company was successfully launched in 1883. Yamanobe became the chief engineer of the factory.

Around 1900, there was a severe textile recession. Shareholders demanded higher and quicker returns. But Yamanobe insisted on long-term development of the company. Even the General Director criticized him. Being desperate and wanting to quit, Yamanobe visited Shibusawa's residence. Shibusawa assured that he would support Yamanobe 100 percent and requested him to continue to work for the company. So Yamanobe stayed. After a while, the recession ended and Yamanobe was promoted to the President of Osaka Spinning Company.

Let us introduce one more person. Masazumi Fuji was a super factory manager of Kanegafuchi Spinning Company (Kanebo). He graduated from Keio University and worked in the sales department of Suminodo Factory of Kanebo. This factory was facing obsolete machines, lack of work discipline and low capacity utilization. He worked 18 hours a day to replace or repair old machines and recruited 500 new workers. He restored the factory to full operation in three months. He was then promoted to the Managing Director of Kanebo's Tokyo Factory. This factory was another disaster. He repaired, invested, and improved. He reduced the work force from 4,000 to 1,620. After three years, the factory became very profitable. If Mr. Fuji were still alive, I would like to send him to your country as a JICA expert.

What do we learn from these stories? Meiji industrialization was achieved by these powerful and risk-taking individuals with energy, vision and leadership. Meiji was full of such people, and Japan relied on them for industrial revolution. New laws, deregulation and level playing fields are perhaps not enough. If Shibusawa did not write the first letter to Yamanobe, Japan's textile industry may not have started. If so, the real question is, how can we generate such wonderful people continuously in a society?

Chapter 6

Meiji (4): Budget, Finance and the Macroeconomy



The picture of the completed Bank of Japan building.

1. Two wars and Postwar Management

One of the national goals of Meiji was external expansion. To be more precise, Japan felt it necessary to create an area of influence around its territory to protect its interests against the West. During Meiji, the greatest potential threat to Japan was the eastward expansion of Russia's Romanov Empire. To guard its national interests, Japan wanted to construct its "line of interest" beyond its national border. That specifically meant placing Korea under Japanese influence.

In his famous speech at the first imperial parliament (1890), Prime Minister Aritomo Yamagata argued as follows:

There are two ways to secure national independence and defense. The first is to protect the line of sovereignty. The second is to protect the line of interest. The line of sovereignty means the nation's border and the line of interest includes the area closely related to the safety of the line of sovereignty. There is no country that does not try to defend both lines. Under the present circumstance, to maintain our independence and stand against the Western powers, defending the line of sovereignty is not enough. We need to protect our line of interest as well.

But China's Qing Dynasty considered Korea as its protectorate. Japan's ambition over Korea naturally clashed with Chinese interests. In Korea, the political situation became unstable, as the Japanese army staged military provocation and the assassination of a Korean queen. Finally, Japan and China opened fire over Korea (Japan-China War, 1894-95). Japan's new battleships and military strategy won over China's older method of fighting. Although the Chinese equipment was also modern, its strategy was poorly designed. After this victory, Japan obtained reparations amounting to 310 million yen in gold, the territory of Taiwan as Japan's first major colony, and China's Liaodong Peninsula. But shortly after, Japan was forced to return the Liaodong Peninsula to China under the joint pressure from Russia, Germany and France. Japan felt deeply humiliated at this because it meant it was still a weaker power than the West.

Even after Japan's victory over China in 1895, Korea and the North-eastern region of China remained under Russian influence. This inevitably collided with Japan's expansionist policy and, within ten years, the Japan-Russia



The Japanese Colonial Administration in Korea, located in the center of Keijo (Seoul).

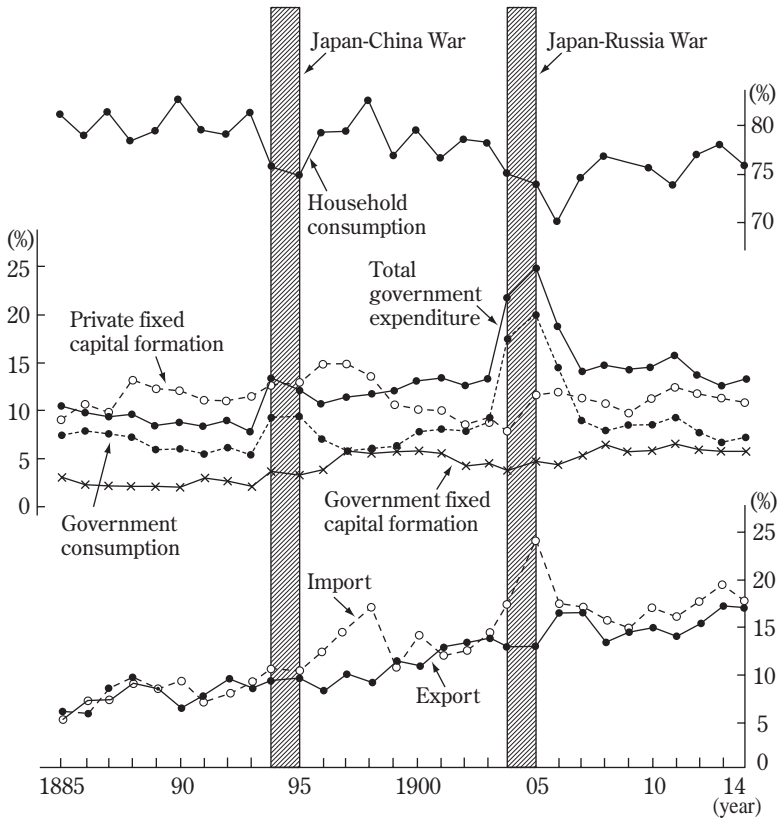
War broke out (1904-05). Most foreign observers predicted an easy Russian victory. But surprisingly, the Japanese navy decisively defeated Russia's Baltic Fleet. Immediately after this naval triumph, the Japanese government asked the United States to mediate a peace treaty between Japan and Russia since the continuation of the war would surely lead to a fiscal crisis (the approach to the US government had been made in advance). The victory over Russia was considered to be a proof that Japan had finally become a first-class country on a par with the West. National pride ballooned. But at the same time, the Japanese people and media were infuriated because Russia paid no reparations. By contrast, the Japanese government was happy simply because the war ended before Japan went bankrupt.

Japan annexed (colonized) Korea in 1910. Meanwhile, Russia's Romanov Empire collapsed in 1917 and a communist regime was established (Russian Revolution).

What impact did the two wars have on Japan's macroeconomic policy stance? To consider this, we need to look back a little.

When the first imperial parliament was convened in 1890, the key

Figure 6-1 Structure of Gross Domestic Expenditure



Source: Nishikawa and Yamamoto, eds, 1990, p.5.

issue was whether Japan should adopt fiscal expansion or fiscal austerity. The government wanted to accelerate spending for industrialization and military buildup, but the opposition parties demanded tax and spending cuts. The latter reflected the voice of voters, most of whom were rich farmers obliged to pay the land tax. But gradually, some opposition parties changed tactics and began to cooperate with the government. Instead of demanding a small government, they asked for more rural public spending (in their constituencies).

During the two wars, military spending sharply increased. In the case of the Japan-Russia War, foreign bonds were floated in America and Europe to cover roughly half the war expense. This practically terminated the debate over



In 1896 the parliament approved the budget for building a modern state-owned steel plant. Yahata (also pronounced Yawata) Steel was completed in 1901. Initial technical difficulties were overcome by adjusting German technology to local requirements. Yahata Steel was later merged several times to become Nippon Steel Corporation.

the fiscal policy stance as budget spending increased in reality. Fiscal activism became generally acceptable.

Moreover, after each war, fiscal activism was adopted instead of macroeconomic contraction. For this reason, the size of government did not shrink after each victory but continued to expand (the fiscal ratchet effect). The term *Postwar Management* refers to the aggressive public investment and spending programs of the central and local governments after the Japan-China and Japan-Russia Wars, which included:

- Continued military spending, especially battleship construction
- Railroad construction
- Integrated steel works in Yahata (SOE, established in 1901—see photo)
- Building of the national telephone network
- Taiwan Management—administration of and investment in the newly acquired colony
- Infrastructure building, such as roads and water supply, which was undertaken mainly by local governments
- Education spending undertaken mainly by local governments

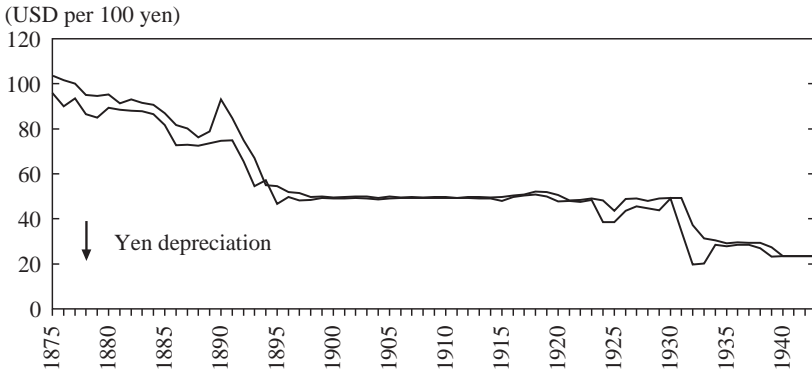
As a result of continued fiscal expansion, the balance-of-payments pressure mounted and the Bank of Japan quickly lost gold reserves. It can be said that Japan prior to WWI was facing an increasingly serious macroeconomic crisis.

2. Exchange rate policy

Britain adopted the gold standard in 1821 and all other major Western countries, including the United States, shifted to the gold standard by the end of 1870s. While the West was on the international gold standard, Japan remained externally on the silver standard—gold, silver and copper coins circulated internally but silver was the means of international settlement. This in turn was mainly because the silver standard was dominant in East Asia. Shanghai (China) was the center of Asian foreign exchange markets.

The price of silver gradually declined against gold in the late 19th century. This meant that the Japanese yen, tied to silver, automatically depreciated against the world's major currencies, which provided a favorable condition for export promotion. However, Finance Minister Matsukata, the man who previously generated what was called Matsukata Deflation in the early 1880s, now insisted that Japan should adopt the gold standard as soon as possible because it was the standard practice among first-class countries. Ignoring opposition, Matsukata introduced the gold standard in 1897. The initial gold reserves were secured by the reparation gold paid by China after the Japan-China War. From then on, the Japanese yen was fixed against major currencies at the parity of 2 yen to the US dollar.

Figure 6-2 Yen-Dollar Exchange Rate



Source: Management and Coordination Agency, *Historical Statistics of Japan*, Vol. 3, 1988.
 Note: Two lines indicate highest and lowest for each year.

As a consequence, the automatic depreciation of the yen ended. Japanese inflation converged to world inflation, which was close to zero. Due to the absence of the exchange risk, it became easier for the central and local governments to issue foreign currency-denominated bonds.

3. Creating modern banking

In early Meiji, the Japanese banking system was chaotic, to say the least. The initial policy of creating “national” banks (1872), copied from the US system, was not very successful (“national” here means “chartered by the state”; these banks were actually private). This decentralized system had no central bank, and each “national” bank could issue bank notes with the backing of gold reserves. But holding gold reserve was costly and only four banks were set up. Later, the gold reserve requirement was relaxed and the total of 153 banks were created. But eventually, this system was regarded as ineffective and later abolished.

The modern banking system began to take root with the creation of a central bank (Bank of Japan) in 1882, which became the only entity to issue the national currency. In addition to commercial banks, the following specialized banks were created to fund investment projects:

- Japan Kangyo Bank (later, Daiichi Kangyo Bank; now part of the merged Mizuho Financial Group created in 2000. Kangyo means industrial promotion.)
- Hokkaido Takushoku Bank (bankrupted in 1997; Takushoku means opening new land for cultivation)
- Industrial Bank of Japan (now part of the Mizuho Financial Group)
- Agricultural and Industrial Bank (set up in each prefecture; merged into Japan Kangyo Bank by 1944)

In addition, postal savings began to collect people’s savings. Insurance companies, agricultural credit unions and urban credit unions also functioned as financial intermediaries.

But until late Meiji, Japanese banks were not true financial intermediaries in the sense of taking deposits and making loans. At first, paid-in capital, reserves and government deposits dominated the liabilities of the banks. For

Table 6-1 Sources of Borrowing by Farm Households
and Manufacturing Enterprises

(%)

Borrowing from:	Farmers			Manufacturers
	1888	1911	1932	1932
Modern financial institutions	7.2	35.7	47.3	60.8
Banks	7.2	32.7	26.7	59.8
Cooperatives	--	2.5	16.0	1.0
Official low-interest credit	--	0.5	4.6	--
Traditional institutions	92.8	64.3	52.7	39.2
TOTAL	100.0	100.0	100.0	100.0

Note: Prof. Juro Teranishi's estimates (1990). Manufacturers' data are for Tokyo and Kobe only. Traditional institutions include money lenders, merchants, relatives, and mutual financing.

early banks, designation as the government's fiscal depository was very profitable, because they did not have to pay interest on official deposits between the time taxes were collected and the time they were transferred to the government. Only towards the end of Meiji, banks began to rely more on private-sector deposits. But even then, many banks remained unsound with the general lack of information disclosure, risk management, portfolio diversification or project evaluation. Banks were often captured by one or a few business enterprises, providing financing exclusively for them. Such banks were called *kikan ginko*, which literally means "institution banks." This situation subsequently caused an enormous bad debt problem in the 1920s (chapter 8).

All this points to the fact that creating a sound banking system in a developing country is a very difficult and long-term endeavor. New banking laws and financial deregulation will not be enough to achieve this.

As for the capital market, stock exchanges were created in Tokyo and Osaka in 1878. But initially, few stocks were traded and these exchanges functioned mainly as a secondary market for government bonds. Former samurais who received government bonds in exchange for the previous rice salary often wished to sell them as they faced financial distress. In the 1880s, as many railroad companies were established, railroad bonds gradually became the most important instruments for trading. In the 1890s, the shares of maritime transportation companies became popular. After 1906, when private railroads were nationalized, the shares of textile and food companies replaced railroad stocks.

4. Savings mobilization

Where did the funding for Meiji industrialization come from? Data are incomplete, economic historians are still debating, and we do not have a definite answer. Here, let us look at the estimates provided by Juro Teranishi (1990).

Teranishi estimates the savings-investment balance of Japan from 1899 to 1937. He does not have data for early Meiji, before 1899. He classifies the economy into four sectors: private farms, non-farm private enterprises, government, and the external sector. He additionally estimates the size of agricultural taxes. The following interpretation by Teranishi is consistent with his estimates (although other interpretations may be possible).

First, in pre-WW2 Japan, the largest funds for industrialization came from private enterprises themselves. Retained profits, family savings, and the resources of rich merchants seem to have financed private investments within the business sector through self-finance, the creation of joint stock companies and so on. The role of banks as a financial intermediary did not appear very great, especially in the early periods.

Second, in addition, the fiscal transfer mechanism from agriculture to industry must have played an important role to the extent that land taxes paid by rural communities were used to finance public investment and various subsidies. But Teranishi somewhat downplays the role of landlords as major contrib-

Table 6-2 Savings-Investment Balance by Sector

(In millions of yen)

	1899-1902	1903-1907	1908-1912	1913-1917	1918-1922	1923-1927	1928-1932	1933-1937
Private farms	1	13	4	43	207	23	-12	222
Savings	121	159	175	240	657	523	402	580
Investment	120	146	171	197	450	500	414	358
Non-farm private sector	62	123	-87	175	81	-290	631	931
Savings	180	310	212	752	1724	858	1498	2637
Investment	118	187	299	577	1643	1148	867	1706
Government	-59	-233	15	120	-146	-112	-626	-1162
Savings	24	-142	205	317	441	801	251	-298
Investment	83	91	190	197	587	913	877	864
External sector	5	-97	-68	338	143	-380	-6	-10
Memorandum item: Agricultural taxes	104	115	154	166	290	291	188	145

Note: Prof. Juro Teranishi's estimates (1990). Private farms' S-I balance shows transfer of surpluses to the non-farm sector through the financial system while agricultural taxes are transfer of surpluses through the government budget.

utors to saving mobilization since the ratio of agricultural tax to total investment declined over time. Nevertheless, such fiscal transfer may well have played a crucial role in early Meiji, for which Teranishi does not have data.

Third, foreign savings played some role toward the end of Meiji as foreign-currency denominated bonds were issued by the central and local governments—see the next section.

5. The role of external funds

Quantitatively speaking, the contribution of foreign savings to industrialization was relatively small during the Meiji period. Almost all necessary funds were raised domestically. Meiji Japan did not welcome FDI or foreign loans for industrialization, except for the public-sector borrowing in late Meiji for the purpose of war execution and Postwar Management as mentioned above. Initially, as a matter of principle, the government rejected external liabilities for fear of foreign control. This was in sharp contrast to other latecomers, such as Russia and Italy. Russia borrowed heavily from London's financial markets to build railroads during the 1860s and 70s. Italy also accepted large amounts of foreign investment in all sectors in the late 19th century.

However, the reliance on foreign saving did increase in late Meiji. Let us see what happened step by step.

In early Meiji, the government issued foreign bonds twice. After that, there was some internal debate on the desirability of further borrowing for the purpose of creating a modern monetary system. But actual borrowing was not considered or made until the mid 1890s.

After the victory in the Japan-China War (1894-95), the situation changed. With the introduction of a fixed exchange rate and the gold standard which was made possible by the receipt of reparation gold from China, it became easier for Japan to issue foreign bonds. The policy of fiscal activism also required additional financial sources. The establishment of the Rikken Seiyukai Party, which strongly supported spending policy, and its assumption of power in 1900 accelerated this trend. In order to ameliorate financial crises and credit shortage, the business community also began to call for external borrowing.

During the seven years following the end of the Japan-China War, the Japanese government issued foreign bonds in three installments, totaling 190 million yen (\$95 million) to fund its public investment. During the Japan-Russia War (1904-05), the government again issued foreign bonds worth 800 million yen (\$400 million) in four quick installments to execute the war. These bonds were denominated mainly in British pound or US dollar (the exchange rates were 2 yen per dollar and 4.87 dollars per pound). Between this war and the outbreak of WW1, the bond issue was repeated seven more times, mainly to redeem domestic government bonds and release more funds for domestic industries.

After the Japan-Russia War, local governments also began to actively borrow abroad. Local government bonds and corporate bonds issued by local SOEs were the two major forms of such borrowing. Funds raised through these instruments were used for building infrastructure, such as railroads, gas and water supply, electricity and so on.

Both Teranishi (1990) and Kamiyama (2000b) interpret the external public borrowing of this period as a way to finance the balance-of-payments deficit while continuing fiscal activism. Without it, macroeconomic policies had to be tightened but Japan did not want to do this.

As for FDI, inflow remained negligible in terms of both establishment of new enterprises and purchases of existing stocks by foreigners. As the unequal commercial treaties with the West were revised, foreigners were allowed to invest in Japan. The restriction of foreign investment to the designated foreign settlements was lifted in 1899. But that did not cause any increase in FDI inflow. There were only two companies in which foreign ownership exceeded 50 percent.

After successful modernization, Japan becomes a new threat to East Asia and the world

By the 1910s, the three national goals of early Meiji—namely, industrialization, political reform, and military expansion—were more or less achieved, and Japan began to consider itself to be part of the first-class world. Achievements by the end of Meiji can be summarized as follows:

- Industrial revolution was achieved in light industries, especially cotton textiles, although machinery and chemical industries were still embryonic.
- Japan now had a Western style legal system equipped with a constitution, necessary laws, and a functioning parliament.
- As the unequal treaties were revised step by step, Japan regained tariff rights and the right to judge foreign criminals. Taiwan and Korea were colonized, and the threats of China and Russia were repelled.

After WW1, Japan began to attend important international conferences as a member of the “Big Five.” The other members were US, Britain, France and Italy. But Japan’s accomplishments and emerging assertiveness created new doubts among both the West and the Asian neighbors. For the West, Japan was now a dangerous military power which might imperil their interests. For the rest of East Asia, Japan acted as a new imperial invader in the region threatening their independence.

During WW1, while Europeans and Americans were absorbed in fighting, the Japanese government issued the “Twenty-One Demands” to China in 1915. These included the demand for transferring German-occupied Chinese territory (Shandong Peninsula) to Japan, expansion of Japanese interests in Southern Manchuria and Eastern Inner Mongolia, a new industrial joint venture, prohibition of yielding Chinese territories to other countries, acceptance of Japanese advisors, and others (“Manchuria” is a term then used to refer to the Northeastern Region of China). The Chinese government first resisted the Twenty-One Demands, but with an ultimatum from Japan, it finally accepted them. When China’s protestations against the Japanese demands were rejected at the Paris Peace Conference, a large-scale anti-Japanese movement erupted in China in 1919 (May 4 Movement).

After the Russian Revolution, the major powers sent troops to topple the new communist government, but the attempt was eventually unsuccessful. Japan sent the

largest number of troops to Siberia and kept them there the longest, after all other countries ended intervention.

These actions increased global suspicion against Japan. Even the United States, a traditional ally and the largest trading partner of Japan, began to express displeasure. Another thorny issue with the United States was the mistreatment of and discrimination against Japanese immigrants in the United States. Thus, during the 1920s and 30s, Japanese diplomacy was facing a grave choice: whether to restore friendship with the West and East Asia or continue to assert its way against global criticism.

Figure 6-3 Japan's Territorial Expansion



Note:

After the Japan-China War, Japan received Liaodong Peninsula from China in 1895 but was forced to return it in the face of diplomatic pressure from Russia, Germany and France in the same year. After the Japan-Russia War, Japan obtained the southern half of Liaodong Peninsula from Russia, and named it Guandong (Kanto-shu). Guandong included the military port of Lushun and the commercial city of Dalian.

Chapter 7

World War I and the 1920s: Export-led Boom and Recession



Taisho Democracy – An open-air speech meeting demanding universal suffrage in Ueno Park, 1919.

1. Impact of World War I

When the First World War erupted in July 1914, its consequences for the Japanese economy were at first uncertain. As the European major powers began to fight each other, their international trade was suspended, which meant that Europe could no longer supply textiles, machinery and chemicals to the rest of the world. It was feared that Japanese investment would be adversely affected. In reality, Japan did experience severe shortages of high-quality machines and industrial materials as domestic demand for them surged.

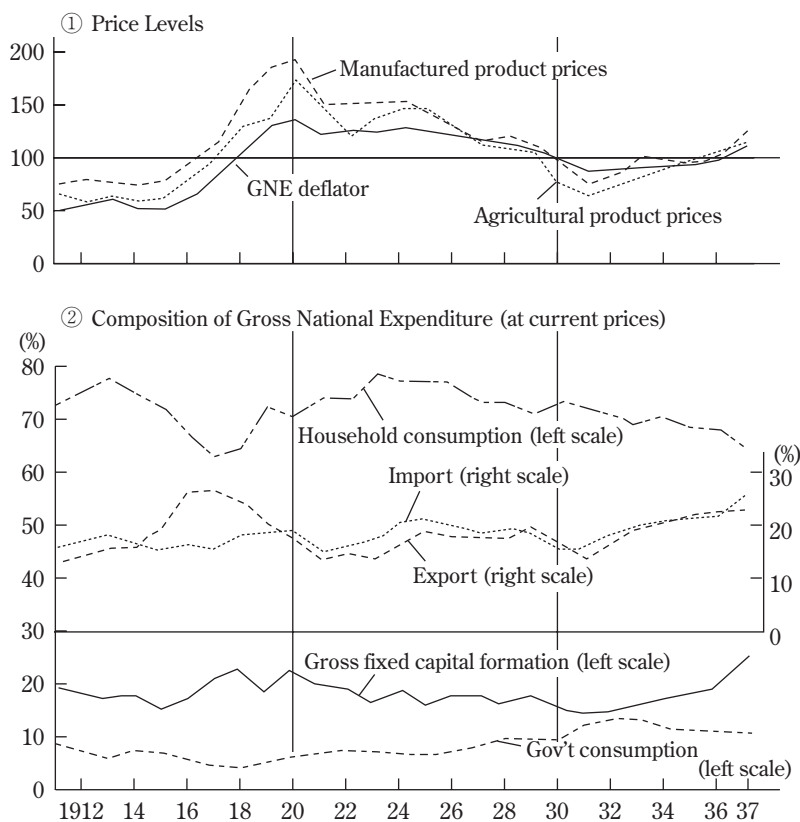
But it soon became clear that WWI would bring a huge bonanza to the Japanese economy, at least in the short run, because of the sudden increase in global demand for Japanese products. An enormous export-led boom was generated because global demand shifted from Europe to Japan and also because the US economy was expanding. Japanese manufactured products were still of inferior quality but could substitute for European products which now became unavailable.

The Japanese macroeconomy, which previously faced a mounting trade deficit and gold reserve loss, was greatly stimulated by this sharp rise in foreign demand. During WWI, the domestic price level more than doubled and real GNP surged, with an estimated annual growth close to 10 percent. In terms of GNP expenditure, exports rose, imports were slightly suppressed, investment only moderately increased and with a lag (due to the shortage of machinery), and private consumption fell (Figure 7-1). What happened was a sharp rise in output without a corresponding capital stock accumulation, pushing up the apparent operation ratio and “efficiency” of capital. Domestic consumption was crowded out by foreign demand, mainly through forced saving under temporary inflation. Business profits jumped and gold reserves accumulated. This is how Japan got out of the pre-WWI balance-of-payments crisis—as a result of a sharp rise in export demand caused by a foreign war rather than through macroeconomic austerity¹.

The export-led boom was a broad-based one in which all industries

¹ We will see in chapter 10 that a similar situation will rescue the Japanese economy out of crisis in 1950 when the Korean War occurred.

Figure 7-1 Price Movements and Gross National Expenditure



Source: Ohkawa and Shinohara, eds, *Patterns of Japanese Economic Development: A Quantitative Appraisal*, Yale University Press, 1979, Appendix Table A50.

benefited. Among them, marine transportation and shipbuilding were extremely profitable and expanded most rapidly. Between 1913 and 1919, overall manufacturing expanded 1.65 times, while specific industries enjoyed the following output increases: machinery (3.1 times), steel (1.8 times), chemicals (1.6 times) and textile (1.6 times).

Clearly, this export-led boom was temporary—only as long as WWI continued, which meant about four years. Despite inferior quality, Japanese products were capturing overseas markets with unusually strong demand and high prices under the special conditions of the European war. Domestically, import substitution accelerated artificially because European goods did not

arrive. In retrospect, most of the business expansion during WW1 was inefficient, excessive and unsustainable. Because of this historically unprecedented boom, mediocre merchants and inefficient producers became suddenly rich and successful. They rapidly expanded their businesses. A class of *nouveaux riches* called *narikin* emerged (in Japanese chess, *narikin* means a pawn becoming a gold general). They were often without culture or taste and fond of showing off their material wealth.

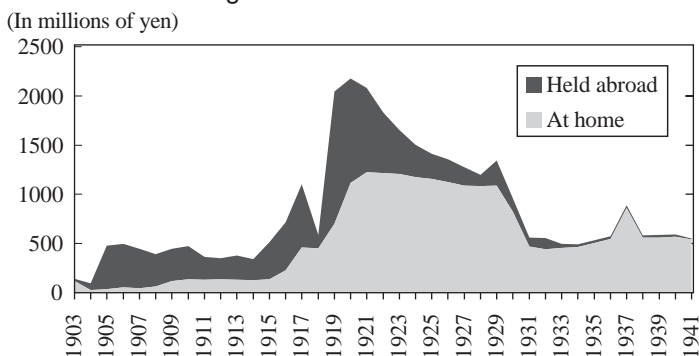
For Japan, WW1 required very little military involvement. Japan did not engage in any serious combat. But since Japan had a military alliance treaty with the Britain (1902-1923, with Russia as the potential enemy), the government used this as an excuse for capturing German-occupied territories in Jiaozhou Wan (including Qingdao) in China and a number of islands in the Southern Pacific.

2. Collapse of the bubble

In 1918, when WW1 ended, a small business setback occurred. But the Japanese economy continued to do well in 1919. Then came the big crash of 1920. The beginning of the postwar recession meant that the bubble had finally collapsed. The prices of many commodities fell sharply. Within the year of 1920, the price of cotton yarn fell by 60 percent, that of silk by 70 percent, and the stock market index plunged 55 percent. There was no downward price rigidity in those days. Macroeconomic adjustment was brought about mostly through price changes rather than output fluctuation. When the bubble ended, the lack of competitiveness and overcapacity of the Japanese economy, previously hidden under unsubstantiated exuberance, was exposed. Most *narikin* were bankrupted. Their happy days were short.

After this and throughout the 1920s, Japan went through a series of recessions and banking crises. The most serious bank runs occurred in 1927 (chapter 8). The economy slowed down significantly compared with the WW1 period, but no severe fall in output was recorded. Domestic demand was not buoyant but steady. Recessions were frequent but short-lived. Prices remained flexible. Trade deficits returned and persisted, which was financed by the drawing down of the previously accumulated gold reserves. During the 1920s, the

Figure 7-2 Gold Reserves



Source: Management and Coordination Agency, *Historical Statistics of Japan*, Vol. 3, 1988.

sky above the Japanese economy was neither sunny nor pouring. It was as if thick clouds gathered and stayed above the economy depressing the economic mood of the country, somewhat like the 1990s to the early 2000s.

Faced with the onset of a long recessionary period, it is worth noting how the Japanese government reacted. It had two policy options: the one was to rescue weakened industries and banks saddled with bad debt, and the other was to eliminate inefficient units in order to streamline the economy despite transitional pain. The Japanese government opted for the first. In particular, the Bank of Japan provided emergency loans to ailing banks and industries to avoid further bankruptcies and unemployment. This policy eased the short-term pain but implanted a time bomb in the Japanese economy which exploded several years later.

3. Development of heavy and chemical industries

But even under the cloudy sky of the 1920s, manufacturing industries were growing. Heavy and chemical industries (HCI) were expanding strongly, despite the relatively weak aggregate demand. HCI growth was broad-based and included steel, chemicals, electrical machinery, general machinery, and artificial silk (rayon). For these products, import substitution proceeded rapidly. By the 1930s, Japan could produce most machinery domestically. This was a big achievement in comparison with the Meiji period.

There were several reasons for HCI growth.

Initially, the *WWI boom* ignited these industries under artificial protection from European products, as explained above.

Second, *policy support* was available. Fiscal activism, including military buildup, continued to be pursued by the Seiyukai Party governments (chapter 9), and tariff protection for emerging HCIs was adopted. The government also promoted the formation of industrial cartels to avoid excess competition and overcapacity.

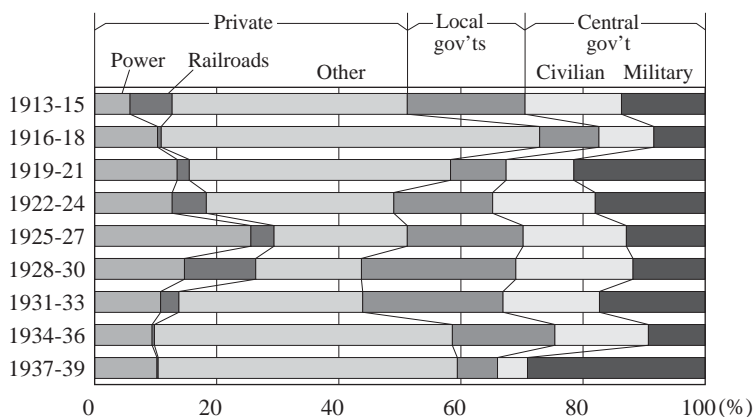
Third, *electrification* proceeded considerably with the growth of hydraulic power generation. Construction of hydraulic power plants occupied the largest share of private investment (another buoyant area of private investment was railroad construction). In the Kansai area in Western Japan, electricity surplus emerged. Power companies resorted to discriminatory pricing by charging very low prices to large corporate customers. Once the dam, the power plant and transmission lines were completed, the marginal cost of producing additional electricity was virtually zero. Discriminatory pricing helped to raise the operation ratio and increase the revenue. This stimulated the growth of electricity-intensive industries such as ammonium sulfate, fertilizer, rayon and aluminum refinery.

Fourth, *foreign technology* was absorbed through FDI. Japanese companies including NEC, Shibaura, Mitsubishi Electric, Furukawa, and Nissan (see below) tied up variously with American and European giants such as General Electric, Westinghouse, Siemens, Ford, GM, Dunlop and Goodrich in the fields of electrical machinery, automobiles, rubber tires, and so on. The business relationships took many forms, including creation of a Japanese subsidiary, joint venture, equity participation and technical cooperation.

Fifth, *industrial linkages* were created. For instance, growth of the steel industry stimulated and supported the steel-using industries like shipbuilding and machinery, and vice versa.

As a result of the development of HCI, a new type of zaibatsu emerged in the 1920s and the 1930s. The largest among them were Nissan, Nichitsu and Mori. Compared with the old zaibatsu such as Mitsui and Mitsubishi,

Figure 7-3 Gross Capital Formation



Source: Koichi Emi, *Long-term Economic Statistics, Vol.4, Capital Formation*, Toyo Keizai Shimposha, 1971.

new zaibatsu had the following characteristics: (i) HCI-based, without much reliance on textile and commerce; (ii) not having a bank as their core business; and (iii) heavy dependence on official support and political connection. They also invested aggressively in the Japanese colonies of Korea and Manchuria (Northeastern China).

Nissan was established in 1928 by Yoshisuke Ayukawa. The company's full name was Nihon Sangyo (Japanese Industry). Raising capital from the stock market, business was diversified into mining, machinery, automobile, chemicals and fishery. Nissan invested heavily in Manchuria. Hitachi and Nissan Motors belonged to this group.

Nicchitsu was established in 1908 by Shitagau Noguchi. Its full name was Nihon Chisso Hiryo (Japan Nitrogen Fertilizer). The group's main business was electricity-intensive chemical industries such as fertilizer, rayon, medicine, explosives and metal refining. Micchitsu invested heavily in Korea.

Mori was established during the 1920s by Nobuteru Mori, who worked together with Saburotsuke Suzuki, the founder of Ajinomoto. Its main business included iodine, fertilizer, aluminum refining, electrical machinery and explosives.

4. Exchange rate volatility

During the pre-WW1 period, from the 1880s through 1914, the world economy enjoyed price stability and free trade under the international gold standard. Japan joined the gold standard and fixed its exchange rate to the major currencies in 1897. Soon, Japanese prices converged to the world level. But this fixed exchange rate regime was smashed by the outbreak of WW1, and the Japanese yen started to float, in 1917.

After WW1, major countries made a number of attempts to restore the prewar gold standard system without much success. Britain returned to gold in 1925 but abandoned it again in 1931. The gold standard could not be re-established partly because there was less free trade and more protectionism in the world than before—in other words, the global goods market was less integrated; and partly because governments now cared more about the domestic macroeconomy, especially unemployment, than the external commitment of gold convertibility. As a result, international monetary cooperation was hardly possible.

Japan also tried to return to the gold standard *at the prewar parity* of two yen to the dollar. The government seriously considered restoring a fixed exchange rate in 1919, 1923 and 1927 but failed to do so for various reasons. Throughout this period, “return to gold” (*kinkaikin*, literally, lifting the restriction on gold exports) became a national economic goal. Each time the government announced such a policy intention, expectations drove up the yen because the actual yen was more depreciated than the prewar parity. But the yen fell back when the policy was not realized. The business community blamed domestic banks and foreign exchange traders, especially those in Shanghai, for speculation. This exchange instability may have further damaged the Japanese economy faced with slow growth.

5. Shidehara Diplomacy in the 1920s

As noted at the end of chapter 6, Japan began to emerge as a serious threat to both the West and East Asia by the end of the Meiji period. After WW1, Japan tried to allay these fears and rebuild good relationship with the West, especially the US, and East Asia. Kijuro Shidehara repeatedly served as



Japan attended the Washington Conference (1921-22) with both hope and concern. Global reduction of naval capacity was welcome for Japan which was facing a fiscal crisis. But Japan also feared that the other big powers might harm Japan's interests.



Kijuro Shidehara (1872-1951) was Foreign Minister in much of 1924-31; and Prime Minister in 1945-46.

Foreign Minister when Minsei Party governments were in place, in 1924-1927 and 1929-1931. In what was called *Shidehara Diplomacy*, he vigorously promoted a reconciliation policy. As a result, Japan's external policy in the 1920s was less belligerent compared with before or after.

In 1921, the Washington Conference for Naval Disarmament was convened by the US, and Japan was invited to attend. This conference put upper limits on principal battleships of the major countries. In terms of tonnage ratios, the possession of principal battleships was restricted as follows: US (5), UK (5), Japan (3), France (1.67), and Italy (1.67). The Japanese delegation willingly signed this agreement because of fiscal pressure; the navy wanted more ships but the national budget was out of balance. In addition, through this, Japan also wanted to show good faith to the Western powers.

The signing of the Nine Powers Treaty was another important result for Japan coming out of this Conference. This treaty recognized the sovereignty of China, prohibited territorial invasion of China through military means by any country, and agreed to share economic interests of major powers in China under the policy of "open door and equal opportunity." Japan welcomed this treaty as it was interpreted to implicitly recognize Japan's special interests in Manchuria and Mongolia. The infamous Twenty-One Demands to China were also accepted, albeit with some modifications, by the international community. However, these "acceptances" were valid only so long as Japan refrained from using mili-

tary force to invade China or rob interests of other powers in China.

Shidehara believed that a good relationship with the US was critical to Japan. Moreover, he felt that Japan, as a first-class country and a member of the Big Five, had the responsibility to strive for global peace and prosperity. As for China, he wanted to protect Japanese economic interests by non-military means. Shidehara's idealism is evident in his parliamentary speech delivered in January 1925.

At present, there is clearly a global movement toward solving all international issues through understanding and cooperation among concerned powers, and not by narrowly self-serving policies, excessive use of militarism or interventionism ... Japan is no longer permitted an isolated and independent existence in the Far East, interested only in its own affairs. As a major member of the League of Nations, Japan now bears a heavy responsibility for promoting world peace and happiness of the human race. Japan must participate in the discussion of all these important issues, even if they have only indirect influence on Japan's own interest. The fact that Japan must bear such responsibilities is beyond question; it is necessitated by the force of history. The great progress of history is making us to take up these responsibilities.

But the Japan-US relationship gradually deteriorated due to the problem of Japanese immigrants on the US Pacific Coast, especially in the States of California, Oregon and Washington. Because Japanese (and to some extent Chinese) immigrants worked too hard and had different cultures, they were discriminated against by Americans. Their schools were segregated, their freedom was restricted and, finally, their property was confiscated. The Japanese government agreed to stop sending new immigrants to the US but demanded fair treatment of the Japanese already there. This issue soured the bilateral relationship.

Shidehara's policy of no military intervention in China was severely criticized by the military and the hardliners as a "coward's diplomacy." It should be noted that even the mass media echoed these sentiments and blamed Shidehara for being too soft on China. During 1927-1929, when the Tanaka Cabinet was in place and Shidehara was out, Japan sent troops to China. Tanaka belonged to the Seiyukai Party and Shidehara belonged to the Minsei Party.

Finally, in 1931, the Manchurian Incident broke out. *Kantogun*, the Japanese army stationed in China, began to invade Northeastern China. This

action was undertaken independently from Tokyo, and the Japanese government could not restrain its army. Shidehara's call for immediate peace was ignored. Shidehara Diplomacy ended this way.

Taisho Democracy

Roughly coinciding with the Taisho period (1912-1926), various social movements demanding more democracy and human rights became active. This included protests against unelected governments, women's liberation, equal rights for the discriminated class (the progeny of the *eta* and *hinin* people—see chapter 2 and the Q & A section in the appendix), universal suffrage, cultural freedom, and so on. These movements were collectively called *Taisho Democracy*.

One of the most eminent intellectual leaders of Taisho Democracy was Sakuzo Yoshino, Professor of Political Science at Tokyo University. He published many articles in popular journals and promoted his version of democracy called *minpon shugi*. It demonstrated that democracy could be installed and fostered even under the Meiji Constitution which bestowed sovereignty to the emperor. Yoshino argued that establishing democratic institutions was not enough and that it



Sakuzo Yoshino (1878-1933)

was essential to constantly improve the *actual implementation* of constitutional government. For this purpose, he stressed the role of the elite class in guiding people. Yoshino also supported universal suffrage. By expanding the voter base from a few rich to the general public, he argued that corruption and money politics would cease and politics based on a broader national vision would begin (it must be admitted that Prof. Yoshino was a bit too optimistic in this).

On the role of the elite, Yoshino wrote:

Some may argue wrongly that the elite class has no place in democracy. But this is not so. Of course, if a small number of people form an exclusive class and monopolize politics independently from the people, it will produce many bad results. But if the elite humbly mingle with the general public, nominally serving and following them but in substance guide them spiritually and for the public good, they will play the role of the truly wise. ... Democracy will not develop in a sound way if uninformed people literally rule.

Formally speaking, the majority must always be the basis of political activities. But they need intellectual leaders in their minds. They must rely on a small number of wise and

capable people. A great nation will emerge when the majority is guided intellectually by the few who are wise. The elite have this responsibility in a modern state. ("Discourse on the Principle of Constitutional Government and the Way to Fully Develop its Potentiality," 1916)

In 1925, the Universal Suffrage Law was enacted, extending voting rights to all males at 25 years of age and above, without income restriction. But in the same year, the Peace Preservation Law was also passed in order to crack down on communists and anarchists. It should however be noted that other major powers had similar laws as well; it was not a uniquely Japanese law. The extension of suffrage to women had to wait until 1945.

In the actual political process, the great achievement of Taisho Democracy was the succession of party cabinets from 1924 to 1932. The leader of the political party having the largest number of parliamentary seats formed the government (instead of appointed old politicians or military generals). When his policies failed, the leader of another party replaced him. This system was not formally institutionalized but actually practiced (called *kensei no jodo*, or the normal way of constitutional government). But this practice was later terminated by pressure from the military and a series of political assassinations.

Chapter 8

The Showa Financial Crisis of 1927



A bank run – Depositors queue up in front of Tokyo Savings Bank after the inadvertent speech by Finance Minister Kataoka.

1. Kikan Ginko problem

Kikan ginko (literally, institution bank) is a term describing a bank set up to serve only one or a few firms. It is captured and subordinated by the parent firm and has no management independence. Naturally, it has many weaknesses such as:

- Non-separation of ownership and management (the same boss often owned and managed the firm and the bank)
- No information disclosure
- No portfolio diversification
- No capability of risk assessment or project evaluation

Why were such banks created? Consider a situation in which a famous family in a certain local district wants to start a business. The family establishes a company but wants to keep it under its full control, without going public or borrowing from someone else. To finance its activities, a bank is set up by the same family. Since the family has a good name locally, many people deposit their savings with this bank, believing it is safe and without knowing its financial situation. In this fashion, many kikan ginko were established throughout the country. There were over 2,000 banks in Japan in the 1900s and 1910s—this was a bit too many.

When the economy boomed, even dubious banks prospered. But when it slowed down after WW1, kikan ginko started to have a mounting bad debt problem. Since their balance sheets were not open, outsiders could not judge the size of the problem. As noted earlier, during the 1920s, the government and the Bank of Japan (BOJ) supported weak banks and firms with emergency loans, rather than closing them immediately. Overcapacity and bad debt continued.

2. The Great Kanto Earthquake and the earthquake bill problem

On September 1, 1923, the Kanto Region was shaken by a huge earthquake. It recorded 7.9 on the Richter scale. Tokyo and Yokohama were very badly damaged. The largest cause of destruction was by fire. Japanese houses

were mostly wooden and the quake hit slightly before noon, when most families were cooking lunch. 100,000 people were killed while another 43,000 were missing. Housing damage totaled 700,000 units. Foreign observers praised Japan for remaining calm and orderly in this calamity, but actually many Korean residents were murdered based on false rumors.

Japan is an earthquake country. It is impossible to avoid earthquakes anywhere in Japan. Earthquakes are also related to volcanoes and hot springs. The main reason for all this is because the Japanese Archipelago is situated where four moving plates meet on the earth's crust. There are basically two types of earthquakes. First, when these plates run into each other and one of them sinks slowly toward the inside of the earth, enormous strain is accumulated and when it is released, a big earthquake occurs. These inter-plate earthquakes occur deep down and affect a large area. Second, there are many active faults near the surface and when they move, an earthquake occurs. They are smaller in magnitude and impact a smaller area, but since it is shallow, local damage could be immense. The Great Kanto Earthquake was of the first type. Recent quakes in Kobe and Taiwan were of the second type.

Back to 1923. Immediately after the Great Kanto Earthquake, the Bank of Japan extended special emergency loans to banks affected in the Kanto Region. This was done in the form of *rediscounting earthquake bills*.

Earthquake bills (commercial bills originating in the designated area affected by the quake) were first taken to banks for "discounting" (banks buy the bills from firms and pay cash after subtracting interest between now and the maturity date). In this way companies could receive immediate liquidity. The banks in turn took these bills to the BOJ for "rediscounting" (the BOJ buys them for cash), so banks too could get liquidity. In this way, the BOJ tried to inject liquidity and sustain economic activity after the earthquake. With this rediscounting facility, even if many firms failed to settle commercial debt because of earthquake damage, the financial system would not seize up.

While this temporary rescue protected the Japanese financial market, it also created a new problem. Since the BOJ rediscounted commercial bills originating in the Kanto Region without discrimination, firms and banks saddled with bad debt unrelated to the earthquake happily brought their non-performing bills to the BOJ. They took advantage of this policy to exchange bad

debt for good cash.

If the companies' problems were truly caused by the earthquake, some of them may have had to close business but most of them could resume operation after a while, and the BOJ should have been able to redeem most of the earthquake bills. But in reality, after two years, only about half the amount was settled by the issuing companies. The rest was a stock of non-performing debt unrelated to the Great Kanto Earthquake with little chance of repayment. If the BOJ continued to hold them, it would incur enormous losses. This was the so-called "earthquake bill problem."

In order to "normalize" the earthquake bills, the government prepared two draft laws. The first law would permit bad bills held by commercial banks be rescheduled for 10 years with government bonds as collateral. The second would allow the government to provide the BOJ with the maximum of 100 million yen to write off BOJ losses related to the earthquake bills. In other words, the bad earthquake bills would partly be converted into long-term debt with delayed repayment and partly be forgiven using public money. Parliamentary debate on these laws began in January 1927.

3. The initial wave of the banking crisis

Finance Minister Naoharu Kataoka was very eager to pass the earthquake bill laws, but the opposition parties criticized the government for bailing out big banks and businesses with taxpayers' money. They demanded that the government disclose the amounts of bad bills and the names of banks which held them (very little was disclosed at that time; there were only rumors). They even argued that the government's true intention might be to help political friends. In the debating process, the size of the bad debt gradually became known. People were shocked at the large size of non-performing loans.

On March 14, 1927, Minister Kataoka was answering pestering questions in the Budget Committee of the House of Representatives. He was frustrated that the opposition did not understand the seriousness of the problem and wanted to debate endlessly. To make the point that the situation was critical, he announced the latest news that crossed his desk: "Today, at around noon, Tokyo Watanabe Bank finally went bankrupt." This news was an unexpected bomb-

shell for the financial market, as well as the people at large. Immediately, depositors queued up in front of banks to withdraw their money. Many banks in the Tokyo area closed. This was the first shock wave of bank runs. However, it was a relatively small financial crisis in the Tokyo area only. The worst was yet to come.

In reality, Tokyo Watanabe Bank was not bankrupt, technically speaking. It was having trouble getting liquidity but the problem was solved quickly. But the bureaucrat carrying news to the Finance Minister forgot to cancel the first report. Some suspected that Tokyo Watanabe Bank must have been happy with the Finance Minister's statement. The bank actually wanted to close but needed a good excuse. Now the bank management could blame Minister Kataoka instead of themselves.

Many people criticized Minister Kataoka for the slip of the tongue which ignited the 1927 financial crisis. But it is very clear that, with or without his improper statement, the Japanese financial system was facing a huge bad debt problem. The true cause of these bank runs was structural, and we cannot blame just one individual for everything.

4. Suzuki Shoten and the Bank of Taiwan

Suzuki Shoten was a new trading company of the *narikin* type, growing rapidly during WW1 through speculative businesses. Suzuki is the name of the founder and "shoten" means store. Its main office was in Kobe and its general manager was Naokichi Kaneko. At one time, its sales turnover even surpassed those of big zaibatsu trading companies like Mitsui and Mitsubishi. It had strong connections with Taiwan, especially Taiwan Colonial Administration, the Bank of Taiwan, and the Taiwanese sugar business, and was given monopoly rights to market Taiwan-made camphor.

But after WW1 and the burst of the bubble, Suzuki Shoten faced a bad debt problem like other *narikin* businesses. It asked the Bank of Taiwan, its main bank, to extend rescue loans. The Bank of Taiwan was a special bank playing the double role of Taiwan's central bank as well as a commercial bank. Despite its semi-official status, it actively extended loans to mainland Japan, including Suzuki Shoten. As its loans to Suzuki became overdue, it could not



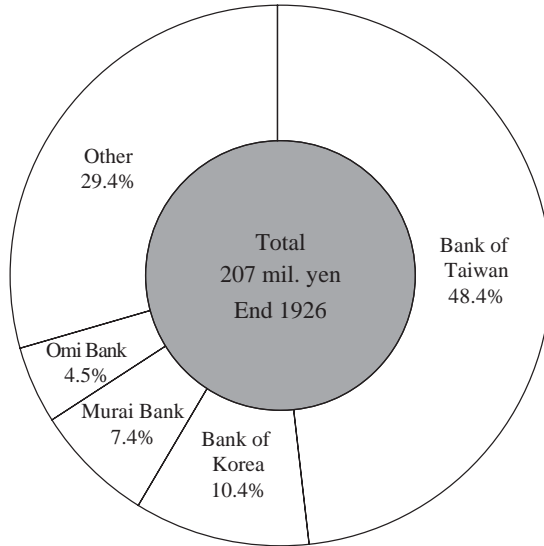
The headquarters of the Bank of Taiwan.

terminate its relations with the company because it occupied too large a part of its loan portfolio. So it continued to lend to Suzuki by rolling over existing debt and providing new loans, delaying the final solution and accelerating the debt snowball. This was the *kikan ginko* problem writ large. As the saying goes, if you have a small debt to a bank and your business fails, you are in trouble; if you have a huge debt that goes bad, the bank is in trouble.

By the end of 1926, the largest part of the unsettled earthquake bills were attributable to the Bank of Taiwan and Suzuki Shoten (48.4 percent). Thus, normalizing the earthquake bills meant solving the Bank of Taiwan-Suzuki problem.

On March 26, 1927, the Bank of Taiwan finally refused any more lending to Suzuki Shoten. This news was a big shock because it revealed the desperateness of the situation, which was beyond anyone's imagination. Previously, people had expected that the government would somehow manage this problem, since the Bank of Taiwan was a special bank and Suzuki was too big to fail (a moral hazard problem!) Naokichi Kaneko, the Suzuki's general manager, even said, "Don't worry, the government will never fail us." No one thought the government would abandon them and let the Bank of Taiwan give up on Suzuki. When that became reality, the second chain of bank runs started, this time in the Kansai area because Suzuki's main activity was in Kansai, which included the cities of Osaka, Kobe and Kyoto.

Figure 8-1 Unsettled Earthquake Bills



Source: Takahashi and Morigaki, 1993, p.146.

5. The BOJ demands government guarantee

The Bank of Taiwan's balance sheet was irregular. On the asset side, bad loans to Suzuki loomed large. On the liabilities side, instead of demand and savings deposits, the bank relied very heavily on short-term interbank "call" loans, as well as borrowing from the Bank of Japan. As soon as the breakup between the Bank of Taiwan and Suzuki was announced, other commercial banks naturally pulled their call loans out of the Bank of Taiwan. The only way for the Bank of Taiwan to survive now was to ask for more BOJ loans.

At this time, even the BOJ refused to extend additional loans unless a new law was enacted to cover BOJ's future losses. For a long time, under political pressure, the BOJ had been generously helping troubled banks. But this undermined the BOJ's own financial soundness. Now at this critical moment, for the first time the BOJ as a central bank became more independent from the government and refused to play the role of the "lender of last resort." The government was forced to quickly issue a special law (an emergency imperial edict)

to satisfy the BOJ's demand. The content of the proposed edict was as follows: (i) the BOJ could extend special loans to the BOT without collateral until May 1928; (ii) the government would compensate the BOJ for losses related to these loans up to 200 million yen.

An imperial edict must be approved by the Privy Council and signed by the Emperor. The government expected it to pass easily. But the Privy Council, under the strong influence of conservative politicians, unexpectedly rejected the proposed edict. They did so because the members did not like the government's conciliatory diplomacy toward China ("Shidehara Diplomacy," chapter 7). When the edict was rejected, the BOJ refused to lend to the Bank of Taiwan. This forced the Bank of Taiwan to close on April 18, 1927. On the same day, another bank—Omi Bank, specializing in the cotton business—also closed.

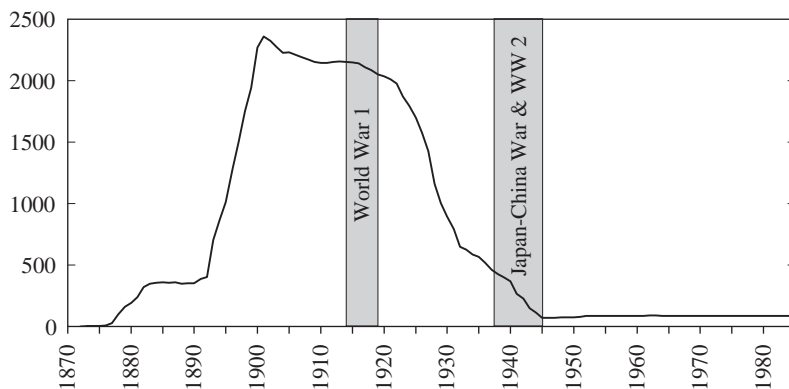
The closure of the Bank of Taiwan and Omi Bank started a chain reaction of bank runs all over Japan. This was the third and most severe financial panic of 1927. On April 22, the government ordered all banks to "voluntarily" close for two days, and simultaneously issued a three-week "moratorium" on virtually all financial obligations. These measures were intended to protect banks against deposit withdrawals (except for small amounts to cover people's living expenses). Meanwhile, banks showed off tall stacks of currency notes to depositors. Calm was restored and things went back to normal when the moratorium expired—except, of course, for the banks that disappeared and the depositors who lost their savings.

6. The consequences of the banking crisis

The Financial Crisis of 1927 was basically a banking crisis. Its macroeconomic impact was negative but not catastrophic. The worst macroeconomic downturn would arrive a few years later, for other reasons (chapter 9).

The most significant consequence of the 1927 banking crisis was financial concentration. After the crisis, the government liquidated or merged unsound banks into about two dozen new banks within a year. In the process, typical depositors at a bankrupted bank lost 35-50 percent of their savings. The government further encouraged mergers of the remaining small banks by imposing a minimum capital size and other requirements. Naturally, people also

Figure 8-2 The Number of Banks



Source: Management and Coordination Agency, *Historical Statistics of Japan*, Vol. 3, 1988.

shifted their deposits from small local banks to large banks with big names. The number of commercial banks fell from more than two thousand in 1919 to 625 in 1932. Deposits were increasingly concentrated in the “Big Five” banks: Mitsui, Mitsubishi, Sumitomo, Yasuda and Daiichi. This reduced the supply of bank credit to small and medium enterprises. But it can also be said that the elimination of small kikan ginko was a good thing, contributing to the modernization of the Japanese banking sector.

Clearly, the financial framework of the 1920s was inadequate compared with today. Deposit insurance did not exist, proper bank supervision and regulatory measures, such as the BIS capital adequacy rule, were not in place, and the BOJ did not fulfill its role as the lender of last resort.

But on this last point, some questions remain. Should the BOJ be blamed because it did not provide liquidity to the Bank of Taiwan at the critical moment? We need to consider the following aspects, and the final judgment is open to question.

- The BOJ had been forced to rescue too many banks against its will and against its own financial soundness. At some point, it had to reassert its political independence. While the immediate consequence of letting the Bank of Taiwan fall was severe, endless provision of emergency loans might not have been the right answer.
- The BOJ knew that immediate provision of unlimited liquidity was

required to avoid a financial crunch. But among the general public and in the parliament, political resistance to injecting public money into a few big banks was so strong. For this reason, the BOJ had to take a tough stance toward the Bank of Taiwan.

- Bank closures are painful in the short run but, if properly done, they will ensure the soundness of the remaining banks in the long run.

Osachi Hamaguchi and Junichiro Koizumi

Below are excerpts from Professor Junji Banno's essay, "Osachi Hamaguchi and Junichiro Koizumi," which compares the policies of the Hamaguchi government (1929-31) and the Koizumi government (2001-). It appeared in *Ronza*, a popular monthly magazine, in October 2001. His assertion is related to both chapters 8 and 9. For the reason of space, it is presented here.

Regarding its economic structure, Japan in the 1920s faced the same problems as today. In particular, the question of how to cope with the impact of the bursting of the WW1 bubble was very similar to the question we are now facing after the bursting of the Heisei bubble in the 1990s. In the 1920s, as at present, the economy stagnated because the policy makers avoided and delayed the resolution of the problem for fear of short-term pain.

The situation of the 1920s, including the problem of how to cope with the non-performing loans and the policy decision to return to the gold standard, has many similarities with the economic problems that the current Koizumi government faces. Then as well as today, the Japanese economy, artificially supported by fiscal stimuli, was driven to a policy impasse. There was no way out except to adopt the gold standard in order to eliminate inferior firms and encourage technical innovation by efficient firms.

However, the mass media's evaluation of the policies of the Hamaguchi government—as well as Finance Minister Junnosuke Inoue who carried out the economic reform—is fairly negative. Partly because of the global depression into which the Japanese economy was plunged immediately after the return to the gold standard, today's media tend to focus only on the painful side of the economic policies of Hamaguchi and Inoue. By contrast, they happily approve the policies of Finance Minister Korekiyo Takahashi who subsequently resurrected fiscal expansionism, and argue that the Koizumi government should not repeat the mistake the Hamaguchi government made. Is this the correct lesson to take from history? ...

The highly regarded fiscal policy of Takahashi boils down to the issuance of government bonds to cover the war expenses of the Manchurian Incident and the active spending to help rural districts out of recession. This was called *Jikyoku Kyusai*, or more recently, *Tomen no Keiki Taisaku* (recovery policies for the moment). This was

considered doubly effective for building infrastructure and for creating jobs... But it is hard to argue that this policy alone improved the productivity and competitiveness of Japanese firms, leading to the economic boom.

If we examine more closely, we find that the lopsided evaluation between Inoue and Takahashi comes from looking only at the macroeconomic aspects of their fiscal policies. The assessment from microeconomic aspects of how the private sector responded is totally lacking.

As I argued earlier, Japan in the 1920s desperately needed structural reforms in order to reduce the bad assets of the post WWI period and cultivate new competitiveness. It is true that unemployment and bankruptcies surged under Inoue's fiscal policy of the Hamaguchi government. But we must also realize that, during this period, many firms implemented overall restructuring and consolidation, industrial structures were reorganized, and export industries underwent management rationalization and technical progress. Only after this intensive joint effort by management and labor to improve efficiency, the Japanese economy was able to recover in the following period...

If this historical lesson is correctly learned, the Koizumi government should be able to effectively apply this lesson to the current situation. I have argued many times that today's Japan must learn from the Hamaguchi government and the Minsei Party led by Hamaguchi. Japan really needs to create another Minsei Party.

Economic reforms always come with pain. Unemployment will visibly increase and bankruptcies will surge. The economy may fail to recover soon. Under these circumstances, which political party will take the responsibility and who will push reforms forward? The lesson of the prewar period, as I interpret it, is that we must learn from the Minsei Party and re-create it today. The Seiyukai Party—in other words, the Liberal Democratic Party—can hardly be the proponent of reform momentum.

Chapter 9

The 1930s and the War Economy



The Manchurian Incident – The Japanese Army marching into the gate of Qiqihar in Heilongjiang, China.

1. The Showa Depression, 1930-1932

Japan experienced the deepest economic downturn in its modern history during 1930-32. This depression had far more serious consequences than the 1927 financial crisis (chapter 8) on all aspects of Japanese society, including economic, social and political. It was caused by the simultaneous occurrence of two factors.

Externally, the stock market crash in Wall Street, called *Black Thursday*, of October 1929 and the ensuing Great Depression in the world economy had a severe negative impact on the Japanese economy. The economic crisis which was started in the US engulfed all capitalist countries, resulting in sharp price declines and surging unemployment.

Internally, the Minsei Party government (July 1929-April 1931), with Prime Minister Osachi Hamaguchi, Finance Minister Junnosuke Inoue, and Foreign Minister Kijuro Shidehara, deliberately adopted a deflationary policy in order to eliminate inefficient banks and firms and to prepare the nation for the return to the prewar gold parity (i.e. restoring a fixed exchange rate of 2 yen per dollar through real appreciation).

Throughout the 1920s, restoring the gold standard was considered as an important economic goal. Finally, in January 1930, this was carried out in the hands of Finance Minister Inoue as Japan re-fixed the yen at the original parity. Before doing this, Inoue implemented a macroeconomic austerity program and deflated the economy in order to return to the now-overvalued exchange rate. Inoue argued:

Our economy remains very unstable because of the export ban on gold [the yen's non-convertibility to gold and the resulting exchange rate fluctuation]. We must liberalize gold exports as soon as possible. But we cannot liberalize gold exports without preparation. What is required in preparation? The government must tighten the budget. The people must accept this fiscal austerity and they themselves must reduce consumption. If that happens, prices will start to fall and imports will begin to contract. That will create an upward pressure on the yen in the foreign exchange... We face a recession without an end in sight. If nothing is done, we will sink deeper into the recession. In the past, Japan often overcame recessions with the help of external stimuli. But the current situation does not permit such a hope because the European economies

are severely weakened by the last war [WW1]. Under such circumstances, we should not hope for foreign demand to bail us out. Recovery must be generated by our hands. There is no way out except through our own austerity (*Essays of Junnosuke Inoue*, Vol.1, 1935).

But unluckily, Inoue's deflation policy coincided with the beginning of the Great Depression in the world economy. Japan was thrown into a very serious deflationary spiral with rising unemployment, and popular discontent against Inoue's policy mounted. Inoue's policy was continued for two years until a Seiyukai government replaced the Minsei Party government in December 1931.

In Britain, John Maynard Keynes asserted in 1925 that the UK should not return to gold at the prewar exchange rate, because the equilibrium exchange rate had shifted due to international price divergence. If an overvalued exchange rate was chosen, he predicted that a recession would ensue. Keynes calculated that the sterling pound would be overvalued 10 percent at the prewar parity. In Japan, too, Tanzan Ishibashi, economic journalist at Toyo Keizai Shimposha, argued for a return to the gold standard at a new, more depreciated parity. But Ishibashi was in the minority.

However, Inoue's idea was that Japan needed deflation. He argued that unprofitable firms and banks survived through the 1920s without mergers, consolidation or closure, because the government and the Bank of Japan generously helped them. He thought that deflation was painful but necessary to remove those inefficient industries. But many people blamed—and still blame—him for pursuing the deflationary policy too aggressively when the world was in the Great Depression. But Inoue did not relent until he was finally assassinated in 1932. Maybe his idea was sound in principle but the timing and degree were unfortunate.



Junnosuke Inoue (1869-1932): the banker, Bank of Japan Governor, and Finance Minister.

2. Social instability and the rise of Fascism

The Showa Depression wreaked havoc on Japanese society. Its main consequences can be described as follows.

First, as in previous periods, macroeconomic downturn was felt primarily in falling prices and not so much in output contraction (estimated real growth was positive during this period). As prices fell, manufacturers rushed to produce more to maintain earnings and keep factories running. But clearly, this behavior would collectively accelerate the oversupply and the deflation. From 1929 to 1931, the wholesale price index fell about 30 percent, agricultural prices fell 40 percent, and textile prices fell nearly 50 percent.

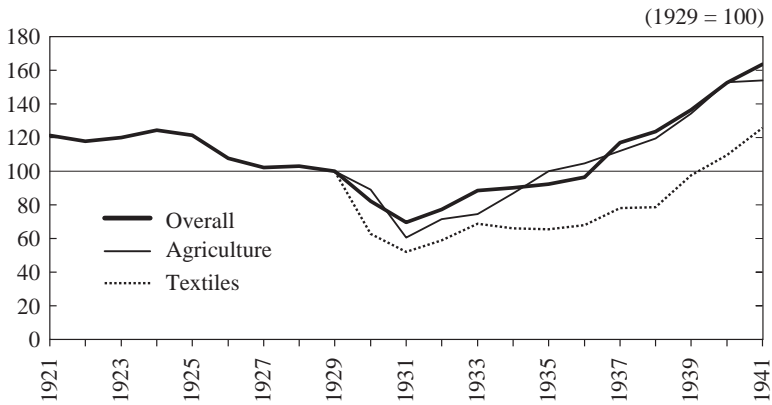
Second, rural impoverishment became severe around 1931. In addition, in 1934, rural communities were hit by famine. In the Tohoku (northeastern) Region of Japan, rural poverty generated many undernourished children and some farmers were forced to sell their daughters. This rural disaster caused much anger and popular criticism against the government and big businesses.

Third, cartelization and rationalization were promoted under government guidance. The free market seemed to worsen the depression, so agreements on output restrictions were adopted. This practice spread to virtually all material industries including cotton yarn, rayon, carbide, paper, cement, sugar, steel, beer, and coal.

Fourth, the fascist movement emerged. *Fascio* was the term used then to denote politicized military and right-wing groups with the aim of establishing a totalitarian regime. Amid economic despair, much blame was placed on party governments and their policies. Even ordinary people, who normally hated militarism, were disappointed with the performance of party governments and became more sympathetic to the “reform movements” advocated by the military and nationalists.

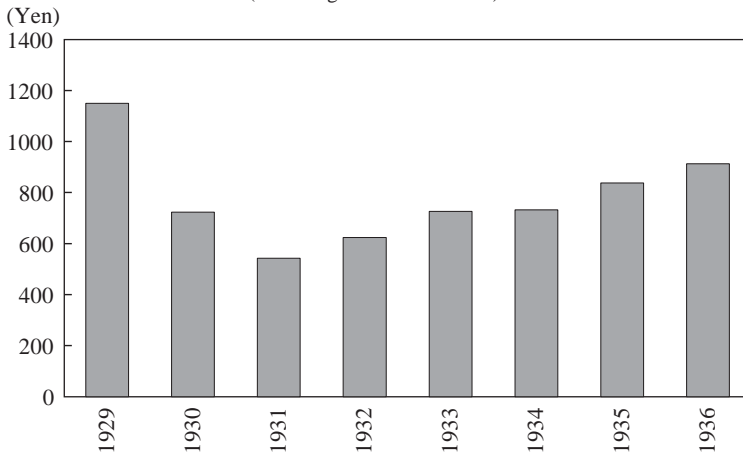
In the 1930s, political and intellectual thinking gradually shifted from economic liberalism toward more control under state management. There were many reasons for this, including: (i) the influence of Marxism; (ii) the apparent economic success of the USSR; (iii) Showa Depression; (iv) the view that deflation was aggravated by excess competition; and (v) disappointment with politicians and political parties. Many considered that the days of the US-style

Figure 9-1 Wholesale Price Levels



Source: Management and Coordination Agency, *Historical Statistics of Japan*, Vol. 4, 1988.
 Note: No data are available for agriculture and textiles before 1929.

Figure 9-2 The Average Income of Farm Households
 (Including non-farm income)



Source: Management and Coordination Agency, *Historical Statistics of Japan*, Vol. 2, 1988.

free market economy were over and that from now on, state control and industrial monopoly would strengthen the competitiveness of the national economy.

Another aim of the military and right-wing groups was active military expansion. They criticized “Shidehara Diplomacy,” which to them seemed too soft on China. Their primary goal was to defend Japanese interests in Manchuria and Mongolia [more precisely, the eastern part of “Inner” Mongolia

as viewed from China]. However, military invasion of China would violate the agreement with the Western powers on the policy of “open door and equal opportunity” in China. Scrapping this agreement would carry the risk of spreading military confrontation to all China and Southeast Asia, and even to the entire world.

3. Seiyukai versus the Minsei Party

Seiyukai (full name: Rikken Seiyukai) was established in 1900 by the union of Hirobumi Ito, a leading politician, and a former opposition party who decided to cooperate with the government. Its main policies were (i) fiscal activism with an emphasis on public investment in rural and industrial infrastructure; (ii) acceptance of a military buildup and expansion; and (iii) pleasing a narrow voter base (rural landlords and the urban rich). It was a party supportive of a big government allocating public money and subsidies. *Seiyukai* literally means “political friend society.”

The *Minsei Party* (full name: Rikken Minsei To) was originally called *Kenseikai* (1916), merging with another party in 1927 to become the *Minsei Party*. Its main policies were (i) economic austerity and industrial streamlining (a free economy and small government); (ii) return to prewar gold parity; and (iii) international cooperation and peaceful diplomacy, especially with the US. Its support base consisted of intellectuals and the urban population. *Minsei* means “people’s politics.”

Japanese voters did not always vote for the same party. They often switched their support from one party to another depending on the issue and situation. Smaller “proletariat parties” also emerged with farmers and workers as the support base.

As noted earlier, Junnosuke Inoue of the *Minsei Party* (Finance Minister 1929-31) was deeply committed to the policy of deflation and returning to gold. This policy caused a severe depression but he never relented or regretted his position. People became greatly frustrated with his policy. Finally, the government (the second Wakatsuki Cabinet) was removed in the aftermath of the October Incident (see below) and was succeeded by a *Seiyukai* government (the Inukai Cabinet) in December 13, 1931.

Table 9-1 Two Major Political Parties in Prewar Japan

	Minsei Party	Seiyukai
Main supporters	Intellectuals, urban workers	Big businesses, rural landlords and rich farmers
Economic policy	Small government, free market principle, elimination of inefficient units through austerity	Big government, fiscal activism, public investment for industry and rural development
Foreign policy	Cooperate with US, oppose military invasion of China (protect Japanese interests through diplomacy)	Supporting military expansion, cooperate with military, if necessary, to undermine the Minsei Party
Finance Minister and his policy in the 1930s	Until Dec. 1931, Junnosuke Inoue pursued deflation policy to return to prewar gold parity	From Dec. 1931 to Feb. 1936, Korekiyo Takahashi engaged in yen depreciation, easy money and fiscal expansion (later reversed)

As soon as the new Seiyukai government was sworn in, Finance Minister Korekiyo Takahashi completely reversed Inoue's policies. On the very first day of the new government, Takahashi ended the gold standard and the fixed exchange rate, and floated the yen which immediately depreciated. In addition, fiscal expansion financed by government bond issues (called "Spending Policy") was adopted. Monetization of the fiscal deficit, in which the BOJ bought up newly-issued government bonds, was tried for the first time in Japanese history. The money supply expanded and interest rates were lowered.

Thanks to this policy turnaround, the Japanese economy began to recover in 1932 and expanded relatively strongly until 1936, the last year of the non-wartime economy. Among major countries, Japan was the first to overcome the Great Depression of the 1930s. Fiscal and monetary expansion worked well. But the yen's sharp depreciation might be considered as a "beggar-thy-neighbor" policy. It was a policy that could offend other countries since Japan promoted its exports at the cost of reduced competitiveness of its trading partners.

For these achievements, Korekiyo Takahashi is called the "Japanese Keynes." He adopted Keynesian policies even before John Maynard Keynes wrote his famous *General Theory*¹ in 1936! Even today, Takahashi's policy is

admired while Inoue's policy is widely criticized as stubborn and misguided. But this view can be challenged. As recently as in 2001, Prof. Junji Banno of Chiba University wrote that Inoue's deflation policy was a pre-requisite for economic recovery of the mid-1930s, because without it efficiency improvement could not have been achieved. His article indirectly criticizes the current Koizumi government for supporting weak firms and banks to avoid painful restructuring (see the box at the end of chapter 8).



Korekiyo Takahashi (1854-1936)

Around 1934, when the Japanese economy was firmly on a path to recovery, Takahashi shifted back to a tighter budget, which seemed an appropriate decision. But the army and navy continued to demand more military spending despite fiscal pressure. Takahashi resisted and was assassinated by a military group in the February 26 Incident in 1936 (see below).

Both Inoue and Takahashi previously served as Governor of the Bank of Japan before becoming Finance Minister, but their personalities differed significantly. Inoue was a slim, intellectual graduate from Tokyo University. Takahashi was fat and had a nickname of Daruma, a round doll. He did not receive much education and had a rough life when he was young. Japanese people naturally preferred Takahashi who looked friendlier and who always saved Japan out of economic crises.

¹ J. M. Keynes, *The General Theory of Employment, Interest and Money*, Macmillan, 1936. Keynes criticized the classical contention that unemployment could be automatically solved through the market mechanism. Using analytical tools such as liquidity preference, shortages of investment opportunities and aggregate supply and demand, he showed the possibility of involuntary unemployment in a world where uncertainty ruled. Public investment was advocated as a remedy for this situation. Keynes' theoretical contribution revolutionized economics, which led to the creation of the discipline of macroeconomics and the system of national income statistics.

4. Political terrorism and the invasion of China

From 1931 to 1937, Japanese politics was gradually overtaken by the military. Many incidents occurred, each undermining the basis of party government. Within the army and navy (especially the army), a few ultra-nationalist groups formed for the purposes of rejecting a party-based political system, uniting the nation under the emperor, introducing economic planning, and saving the rural poor. They staged many coups and assassinations. Here is a brief chronology of this dismal period.

- 1931
 - *The March Incident*—a failed military coup attempt.
 - *The Manchurian Incident (Sept. 18 Incident)*—Several officers of the *Kantogun* (Japanese army stationed in China), including Kanji Ishihara and Seishiro Itagaki, sparked a military invasion by exploding a railroad track and blaming it on Chinese. Ishihara's idea was that Japan had to take Manchuria (Northeastern China) in order to prepare for a full war against the US. They started the incident without informing the Tokyo government or army headquarters. Foreign Minister Shidehara told *Kantogun* to refrain from further military action but Ishihara's group ignored the order. The Chinese side adopted a non-resistance strategy, and Manchuria was soon occupied by the Japanese troops. This incident clearly showed that the party government could no longer restrain the behavior of the military.
 - *The October Incident*—another failed military coup attempt.
- 1932
 - *The Blood Society Incident*—Junnosuke Inoue (former Finance Minister) and Takuma Dan (Mitsui Group) were assassinated.
 - *Establishment of the State of Manchuria* (Japanese puppet state).
 - *The May 15 Incident*—Navy officers assassinated Prime Minister Tsuyoshi Inukai (Seiyukai).
- 1933
 - Japan was criticized by the League of Nations over the occupation of Manchuria. In protest, Japan withdrew from the League of Nations.

The period 1933-35 was relatively “quiet” thanks to economic recov-

ery and fewer domestic and international incidents. But this proved to be a temporary calm before the big storm.

1936 • *The February 26 Incident*—Nationalistic army officers led their troops to stage a military coup on a snowy morning in Tokyo. They wanted to remove the current government and start a new regime. Korekiyo Takahashi (Finance Minister), Makoto Saito (Interior Minister) and Jotaro Watanabe (Education Minister) were assassinated. The coup group occupied central Tokyo for four days. The army headquarters first approved their action but later disowned them, because the emperor angrily told the military to put down the rebellion. The coup thus failed, but after this incident party government was marginalized and the military controlled Japanese politics.

During these incidents, Seiyukai behaved opportunistically, often supporting the military in order to politically attack its rival, the Minsei Party. It was a risky tactic, since the goal of the military was to remove all political parties including Seiyukai! (Banno, 1993, 2004) Seiyukai also criticized the “organ theory of the emperor” by Professor Tatsukichi Minobe of Tokyo University, an academically well-established theory which demonstrated the possibility of party government under the Meiji Constitution². By contrast, the Minsei Party more consistently opposed the military. Nevertheless, both Seiyukai and the Minsei Party were seriously discredited in the eyes of the public because they were considered equally corrupt and incompetent. For farmers and workers who rejected the market mechanism and demanded economic controls and pro-poor and pro-labor policies, both parties seemed too *bourgeois* (pro-business) and thus had to be condemned. In this way, the general public and burgeoning proletarian parties began to partially sympathize with the military. They did not welcome aggressive invasion of foreign countries, but they liked the anti-capi-

² The organ theory of the emperor considered the state as a legal entity with a power to rule in which the emperor was its highest organ. This was the standard theory of the Meiji Constitution. The idea that the emperor’s power was derived from and exercised within the Constitution was in line with the spirit of constitutional monarchy as well as the intention of Hirobumi Ito, the principal author of the Meiji Constitution. However, this theory angered the nationalists who regarded the emperor as divine and beyond the constraints of the Constitution.

talist reform agenda advocated by the fascist groups.

- 1937 • *The Japan-China War*—On July 7, Japanese and Chinese troops had a skirmish at Marco Polo Bridge near Beijing (Beiping). The incident was minor but the Konoe Cabinet in Tokyo decided to send more troops to China. Thus began a full-scale war with China, which lasted until 1945.

After the Japan-China War erupted, political parties were emasculated and subsequently disbanded, the military completely took over Japanese politics, and the entire nation was mobilized to execute the war.

When did Japan cross the point of no return toward total war? In the view of the author, it was probably the Manchurian invasion in 1931. With this incident, Shidehara Diplomacy was abandoned and the military's influence began to increase. The establishment of a puppet state in China by force in pursuit of Japan's national interests completely ignored the policy of "open door and equal opportunity," which was the most important agreement on China among major powers throughout the 1920s. After this invasion, Japan's international isolation was unavoidable. Party governments were too weak to stop this trend. While some factions within Seiyukai and the Minsei Party tried a number of times to join forces to oppose militarism, their attempts did not materialize. Counting from the Manchurian Incident, the period 1931-1945 is sometimes called the "Fifteen-Year War." However, for Japanese people, the sense of wartime did not really exist until 1937 when the Japan-China War started.

Some say that Japanese people and parliament in this period were suppressed, and they were deprived of necessary information and the right to criticize the military. However, this was not correct until 1937. In mass media, there were a large number of essays criticizing the military and its foreign invasion and calling for the formation of an anti-fascism front. In the parliament, many speakers provoked and criticized military leaders. The Social Mass Party, representing the voice of workers and farmers, increased their parliamentary seats at every election. However, the situation changed dramatically after the Marco Polo Bridge Incident. Once total war began, all efforts toward democracy came to nil and everything had to be reorganized for the purpose of war.

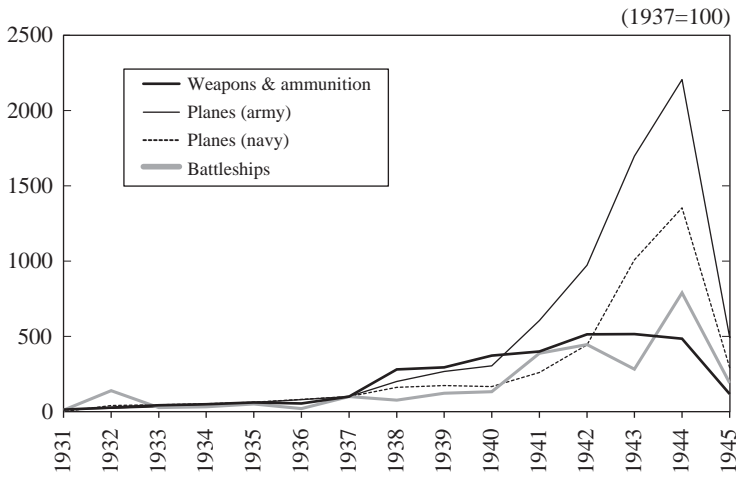
5. The war economy, 1937-1945

The military leaders thought (or at least hoped) that the war with China would be short. But in reality, it lasted for eight years. Without a realistic vision or strategy, the war front expanded and fighting escalated. Within China, the nationalists and the communists were fighting each other at first but later joined forces to resist the Japanese.

While there had been calls for economic planning even before the war, the Japanese economy basically remained market-oriented until 1936. But with the outbreak of the Japan-China War in 1937, the economy was completely transformed for war execution. One by one, new measures were introduced to control and mobilize people, enterprises, and resources. Most Japanese firms remained privately-owned but were heavily regulated to contribute to the war effort. Key components of the war economy included the following:

- 1937 The Planning Board (*kikakuin*) was created. This board, directly under the Prime Minister, was responsible for comprehensive policy design for wartime resource mobilization. The brightest bureaucrats from various ministries were gathered for this purpose. It basically played the same role as the state planning committee in socialist countries.
- 1938 The Planning Board issued the Resource Mobilization Plan, which was Japan's first economic plan. In the same year, the National Mobilization Law was also approved.
- 1940 The New Regime Movement of the Konoe Cabinet. This movement was initiated in response to the Japanese invasion of Southeast Asia and German victories in Europe. It was felt that a strong, one-party system was needed. Existing political parties were dismantled and replaced by *Taisei Yokusankai* (The Society for Humbly Supporting Great Politics), a super organization created by the government to mobilize people.
- 1943 The Military Needs Company Act was adopted. Designated private companies were placed under official control. The government approved top management and production plans and imposed penalties for non-compliance. At the same time, these companies were

Figure 9-3 Production of Military Goods



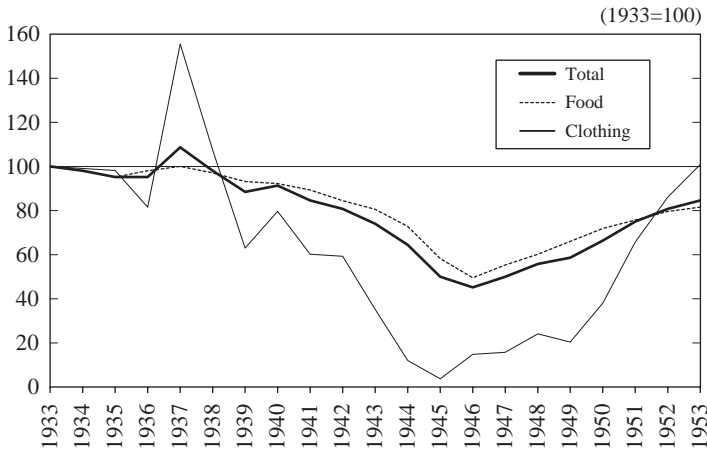
Source: Nakamura, 1989, p.21.

provided with necessary inputs on a priority basis.

The primary objective of economic planners was to maximize military production with the limited domestic resources and possibility of imports. Key military products were ships and warplanes. Toward the end of the war, airplane production became the only priority. In order to boost heavy industries, consumption was greatly squeezed and light industries were strongly suppressed. The textiles industry, previously the leading industry of Japan, was virtually eliminated. People were forced to live without new supplies of clothes and footwear. Steel products in structures and households were stripped and used as the metal source for building more airplanes and ships. As the war continued, food rationing, forced enterprise mergers, and forced factory labor were adopted in increasing intensity.

At first, the two crucial variables in wartime planning were foreign exchange reserves and the availability of energy and raw materials (and the ability to transport them by sea). Until around 1940, the question was how to maximize military output subject to these two constraints. But after 1940, Japan could no longer trade with other countries and the problem shifted to the physical transportation of natural resources from the Japanese colonies and occupied

Figure 9-4 Supply of Consumer Goods per Capita



Source: Nakamura, 1989, p.22.

areas to mainland Japan.

Japan considered that the resources from the “Yen Bloc” (Korea, Taiwan, Manchuria and the rest of occupied China) were not sufficient. In July 1941, in order to secure more resources, the Japanese military began to invade Southeast Asia, starting with French Indochina (Vietnam). This angered the US, which imposed an oil embargo and asset freeze on Japan. If oil imports from the US were cut off, Japan’s oil reserves would last only two years. At this point, Japan began to prepare for war with the US. Diplomatic efforts to maintain peace were attempted but failed. With the Pearl Harbor attack in December 1941, Japan started the Pacific War against the US and its allies.

Japanese leaders did not have any clear idea regarding how to fight a war against the US, let alone how to win it. However, they were encouraged by the brilliant victories of Nazi Germany in Europe. To them, the totalitarianism of Japan, Germany and the USSR seemed superior to American capitalism and individualism.

Immediately after the outbreak of the Pacific War, Japan invaded a wide area of Southeast Asia but soon began to retreat under allied counterattacks. Japanese ships and planes were quickly lost while the Americans built an increasing number of them. From late 1944, US aerial bombing, which consisted largely of incendiary bombs, destroyed virtually all major cities in Japan

(except Kyoto). In March 1945, the US troops landed in Okinawa. In August 1945, two atomic bombs were dropped in Hiroshima and Nagasaki, and the USSR entered the war against Japan. A few days later, Japan surrendered.

The main economic reason for Japan's defeat was the collapse of its war economy due to the lack of material and energy inputs. Japan lost virtually all its means of sea transport and could not bring industrial inputs from its colonies and occupied areas.

The origin of the Japanese system

Many of the characteristics of the post-WW2 Japanese economy originated during the war period of 1937-1945. They feature long-term relationship and official intervention, and include such items as:

- Heavy and chemical industrialization drive
- Administrative guidance (*gyosei shido*)
- Subcontracting system in manufacturing (*shitauke seido*)
- Separation of ownership and management
- Lifetime employment and seniority wage
- Enterprise-based trade unions
- Financial *keiretsu* and mainbanks
- The Bank of Japan's "window guidance" and "convoy system"
- Food control system
- Foreign exchange budget and foreign exchange surrender requirement

All of these policies and systems were deliberately adopted by the government in the late 1930s through the early 1940s in order to effectively execute the war. Before that, the Japanese economy was more *neoclassical*, characterized by freer entry, short-term contracts and high labor mobility.

These features were largely retained even after WW2 and worked relatively well in the 1950s and 60s, when Japan was growing rapidly. However, they are now considered obsolete and to have become barriers to change in the age of IT and globalization. Among the items above, the last one was abolished long ago but the remnants of others still remain in the Japanese economy even today to various degrees.

There is a debate among economists regarding the interpretation of the Japanese system. The majority of Japanese economists argue that Japan should go back to the free market model, because the relational and interventionist system was originally alien to Japan. These may have played a historical role before, but the country does not need them any more (some aspects, like the priority placed on job security, could be partially retained, however). Masahiro Okuno-Fujiwara, Tetsuji Okazaki, and Yukio Noguchi are leading advocates of this view (Okazaki and Okuno, 1993; Noguchi, 1995).

But a minority voice says that Japan needed a system based on long-term relations, with or without war. When an economy graduates from the light industry stage featuring garment, food processing, and simple assembly of electronics products, and moves to heavy industrialization and machinery production, free markets may not be the best choice. Official support and long-term relationships become indispensable for industries that require large initial investments, high technology and an intra-firm labor market. As Japan began heavy industrialization in the 1920s and 1930s, the free economic system inherited from Meiji was inappropriate and had to change. The war provided a good excuse for this change. But even without the war, Japan had to adopt a new system anyway. Yonosuke Hara presents such a view (Hara, 1996). He says that the free economy of Meiji was foreign, and the relational and interventionist system, dating back to the Edo period, is more normal for Japan.

According to the latter view, the implications for today's developing countries are as follows. Light industries and electronics assembly can be promoted by free trade and an open FDI policy, but if the country hopes to absorb technology vigorously and have advanced manufacturing capability, certain industrial promotion measures become necessary. Japan, Taiwan and Korea all adopted this method in the past. By contrast, no ASEAN countries seem to have broken through this "glass ceiling" and internalized their industrial power. If latecomer countries are now banned from taking these measures because of the WTO, FTAs, the World Bank policy matrix and so on, they may forever remain at a low level of industrialization characterized by contract manufacturing and simple processing, and may not achieve a higher level of technology.

Chapter 10

Postwar Recovery, 1945-49



Tokyo destroyed by American bombing, near Shimbashi Station, after the war in 1945.



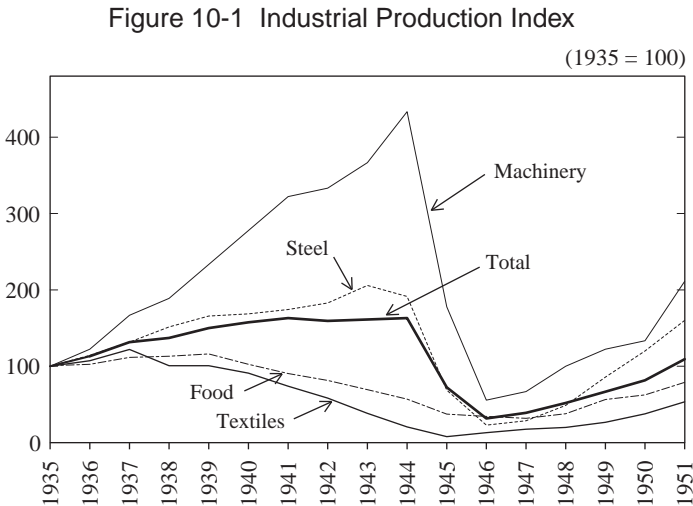
The crowd at a black market, near Osaka Station? in 1946.

1. Physical war damage

After the war defeat, Japan was occupied by the allied forces. In fact, the US was the only country that ruled Japan. The occupying force was called the Supreme Commander of the Allied Powers (SCAP) or, alternatively, the General Headquarters (GHQ—this term was more popular among Japanese). The GHQ was headed by US Army General Douglas MacArthur. In contrast to Germany, the occupation of Japan was *indirect*, in the sense that the Japanese government continued to exist and function and sometimes even resisted US orders. Another feature unique to Japan was that it was occupied by one country, unlike Germany which was occupied by the US, the UK, France and the USSR. This meant that Japan could avoid the risk of being divided when the Cold War began.

The US conducted a survey on the effectiveness of military attacks against Japan during the war. There were two factors that contributed to Japan's defeat.

Sea lane blockade—virtually all Japanese military and commercial ships were sunk, and the country lost the means to transport energy and materials between the mainland and the colonies or occupied areas. Without inputs,



Source: Management and Coordination Agency, *Historical Statistics of Japan*, Vol. 2, 1988.

Table 10-1 The Loss of National Wealth Due to the Pacific War

(In millions of yen at end-of-war prices)

Type of Physical Asset	Before War	After War	Ratio of Destruction
Total assets	253,130	188,852	25.4%
Ships	9,125	1,796	80.3%
Industrial machinery	23,346	15,352	34.2%
Structures	90,435	68,215	24.6%
Industrial materials	32,953	25,089	23.9%
Household assets	46,427	36,869	20.6%
Communications and water supply	4,156	3,497	15.9%
Electricity and gas	14,933	13,313	10.8%
Railroad and road vehicles	15,415	13,892	9.9%

Source: Economic Stabilization Board, *A Comprehensive Report on the War Damage of Japan Caused by the Pacific War*, 1949.

Note: War damage includes direct damage by bombing and shelling as well as indirect damage due to scrapping, removal and the lack of maintenance.

production came to a halt. This was the primary reason for the collapse of Japan's war economy.

Strategic bombing (mostly in 1945)—virtually all Japanese major cities were subject to US aerial bombing. The largest air raid was conducted in the eastern sections of Tokyo on March 10, 1945, when about 100,000 people were trapped in fire and killed within a few hours. Atomic bombs were dropped on Hiroshima (90-120,000 immediately killed) and Nagasaki (60-70,000 immediately killed). However, bombing did not reduce Japan's production capacity as much as expected, although it had a strong psychological impact.

The US report concluded that the sea lane blockade was more effective than the strategic bombing. It also argued that US bombing should have targeted railroads rather than housing.

The Japanese government also produced a report on war damage. Table 10-1 shows the proportions of physical assets lost during the war. Most of the losses were incurred toward the end of the war.

The two-thirds of machinery stock survived despite heavy air raids. The surviving factories and railroads were inoperative, however, due to the lack of energy and inputs. Immediately after the war, in 1945 and 1946, output collapsed to only 20 percent of the wartime peak, or 30 percent of the prewar peak

which was recorded between 1934 and 1936. The lack of inputs was the reason, not the lack of capacity.

2. Shortages and inflation

Economic planning was continued even after the war and until 1949. In a crisis situation, economic control must replace paralyzed private sector activity. As during the war, necessities continued to be rationed and the government directed production and input procurement. Prices were controlled, subsidies were provided and the economy was still tightly regulated. However, compared with wartime, controls became less effective because of the emergence of a large number of black markets.

Shortages were most severe and living standards were lowest in 1946, a year after the end of the war. As food became extremely scarce, it was feared that many people would starve to death. As soldiers and civilians returned home from war fronts and former colonies, unemployment became a serious problem. Joblessness was expected to reach 10 million. However, neither mass starvation nor massive unemployment materialized, because idle population was absorbed largely in the informal and agricultural sectors. Many urban people worked in the informal sector to survive¹. These sectors provided temporary jobs and a food sharing mechanism.

Urban residents had to travel to rural villages in extremely crowded trains to exchange their remaining property, such as kimono and cloth, for food. Rationed food was too small in quantity. Everyone had to violate the law and go to the black market to survive. It is reported that Judge Yoshitada Yamaguchi of Tokyo District Court was so honest that he did not want to break the Food Control Law. He ate only rationed food and refused to take advantage of

¹ The informal sector refers to the collection of jobs that are not officially registered or permitted, such as street peddlers, personal service providers and household works in contrast to legally sanctioned enterprises and cooperatives. Since it operates in a grey zone between legal and illegal, its status remains uncertain, being subject to official round-ups and confiscation and without protection of workers' rights or contract enforcement. For the same reason, there is little incentive for physical asset formation. The informal sector tends to emerge in a country in crisis or whose market economy is underdeveloped or temporarily paralyzed.



The people's economic life was hardest from late 1945 to 1946. Many urban people lost their houses and properties, even if they survived the US bombing. From upper left to lower right, (1) life in a makeshift hut; (2) eating simple food at a black market; (3) a train packed with city dwellers traveling to countryside to barter clothing for food. But if they were caught by police, purchased items would be confiscated. (4) A seller opens a straw mat to show fish in a black market.

illegal food. In October 1947, he died of starvation.

To cope with output collapse and unemployment, the Japanese government printed money to finance subsidies while imposing price controls. Clearly, this strategy could not be sustained for long. Monetization of fiscal deficits created triple-digit inflation from 1946 to 1949. Black market inflation was even higher, especially in the early period. This was the highest inflation that Japan ever experienced, before or since.

Foreign trade was strictly controlled and any transaction had to be approved by the SCAP. Private foreign trade was prohibited. For each commodity, the SCAP decided the dollar price and the yen price separately, so an implicit exchange rate existed for each item. In effect, Japan between 1945 and 1949 had a multiple exchange rate system. Exchange rates for exports (150-600 yen per dollar) were generally more depreciated than exchange rates for imports (125-250 yen per dollar).

The volume of international trade was also very limited. Apart from controlled trade, the US provided large amounts of humanitarian and economic

aid to Japan, amounting to a cumulative \$1.95 billion during 1946-50, which helped to ameliorate the shortages of food and consumer goods. It was said that the Japanese economy was barely surviving with two artificial supports, namely subsidies and US aid. These supports had to be removed as quickly as possible.

3. The Basic Problems of 1946

Immediately after the war defeat, two young officials organized a study group to discuss ways to rebuild the Japanese economy following the war damage. Their names were Saburo Okita and Yonosuke Goto. Actually, preparation for this had been going on toward the end of the war. Okita and Goto were electrical engineers stationed in Beijing, but they knew Japan would soon lose the war. They returned to Tokyo to organize a study group.

The first meeting of the study group was held on August 16, 1945, one day after Japan's defeat. The topic was the foreseeable impact of the Bretton Woods Agreement concluded a year earlier and the creation of the IMF and the World Bank. After that, study meetings on various topics were hosted every week with the attendance of prominent officials and academics. Okita and Goto provided a secretarial service, summarizing the key points of each discussion and drafting a report. The study was begun as a private endeavor but was later officially recognized as the Special Survey Committee of the Ministry of Foreign Affairs. The interim report was issued in late 1945 and the final draft was produced in March 1946. With minor revisions, the final report was published in September 1946.

This report, with the title "The Basic Problems of Japan's Economic Reconstruction," was an excellent example of Japanese development thinking². It started with the analysis of external environment and internal situation. From this, an ambitious yet realistic positioning strategy was derived. Then concrete measures and action plans were contemplated. Many of the strategic orientations proposed in this report are common to Japan's development policy advice even today. For example, when Prof. Tatsuo Kaneda drafted a policy recom-

² This report is now available in English translation—see Saburo Okita, ed, *Postwar Reconstruction of the Japanese Economy*, University of Tokyo Press, 1992.

mentation for Kyrgyzstan (Kaneda, 1992), or when Prof. Shigeru Ishikawa wrote a JICA report on Vietnam (JICA, 1995), their logical sequence was very similar to that of the Basic Problems report. The author's current research on Vietnam's industrialization in the age of globalization also follows the same sequence (Ohno and Thuong, 2005). While the targeted industries may differ from one country to another, the procedure to identify and study them remains common.

The report has 193 pages in two parts. The first part analyzes the new global situation and the historical and geographical position of the defeated Japan. War damage is carefully examined and some positive aspects are also noted. The second part contains proposals for promoting industries and targeting exports, sector by sector, with the necessary concrete policy actions. Real sector issues dominate, while monetary and fiscal problems are discussed only lightly. The key ideas in the report can be summarized as follows³:

- Japan's economic vision should be based on a deep analysis of shifting global trends.
- A comprehensive and concrete recovery strategy must be designed and implemented. It must be based on industrialization, technology improvement and a dynamic transformation of trade structure.
- Each important industry must be analyzed carefully, and realistic and concrete promotion programs must be proposed. Comparative advantages in textiles and agriculture were now lost because of the expected emergence of the rest of Asia. Japan must aim at skilled labor-intensive industries.

Many people were inspired by this report, but its recommendations were not formally adopted by the government. Indirectly, however, the idea that "limited resources must be selectively used for restarting an expansionary reproduction cycle" was put into practice via the priority production system

³ Today's readers may feel uncomfortable when they read the strong assertion in this report that the free economy was hardly recommendable as the world economy was decisively shifting toward planning. But we must recall that this was the dominant thinking dating back to the pre-war period, and planning was even inevitable in the situation of severe economic crisis. Another argument, that Japan's future depended on industrialization rather than on agriculture, trade or services, may sound obvious. But this should be construed as an opposition to the American policy at that time to completely de-industrialize Japan (see below).

Table 10-2 Some Excerpts from the Basic Problems Report (1946)
(Two numbers refer to the page numbers in the Japanese original and the English translation respectively)

- The major causes for such reproduction on a regressed scale are found in the sluggish domestic production of coal and in the shortages of raw material imports. (p.63/66)
- In capitalistic free competition many Japanese industries will be overwhelmed by gigantic modern foreign industries, and Japan's industrial structure will thus be deformed. This will make it necessary to adopt State policies that will keep at least basic industries intact. (p.81/85)
- A national posture will have to be assumed in which all the people do not seek an affluent consumer life but are content with minimum standards of living, consume conservatively, and increase savings—thereby contriving to recover economic power and not seeking financial assistance from the outside world for consumption purposes. (p.85/88)
- A comprehensive and specific year-to-year reconstruction program will have to be formulated in order to revive the Japanese economy from the extreme destitution in which it finds itself now. The waste of economic power that would result from allowing laissez-faire play to market forces will not be permitted in order that all the meager economic power remaining may be concentrated in a direction toward reproduction on an enlarged scale and that the process of reconstruction may be expedited. (p.92/94)
- The principal role in Japan's economic reconstruction will have to be played by manufacturing... Therefore when the Japanese political and economic systems have been democratized and their aggressive character wiped out, the nation's heavy industries should be allowed to grow to a considerable extent... As Japanese heavy industries are certain to be subjected to international competition in the future on the one hand, and because the benefit of adequate governmental protection as experienced in the past will become difficult to obtain on the other hand, they will have to cultivate—through the rationalization of management and the elevation of technological levels—the ability to withstand the competition from foreign goods in terms of production costs as well. (pp.111-112/114)

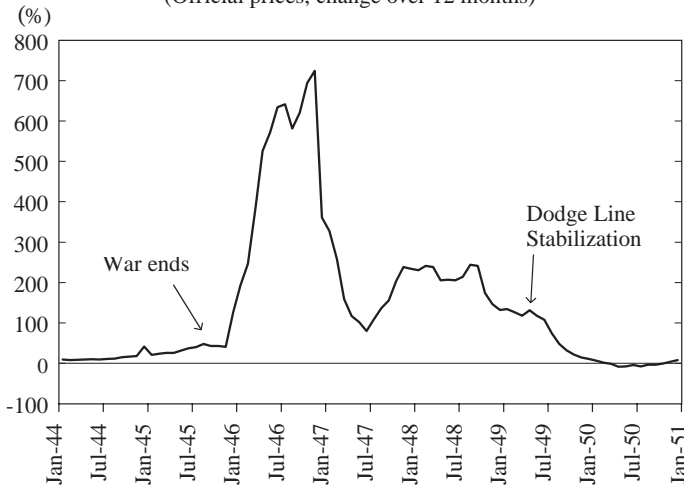
directed by Prof. Hiromi Arisawa, one of the members of the study group (see below).

4. How to stop inflation

After inflation peaked in 1946, it persisted at triple digit level until 1949. Its cause was clear: monetization of the fiscal deficit. The fiscal deficit in turn was generated by the following two policies.

- *Subsidies*—subsidies were mainly directed at intermediate inputs, such as coal, steel, copper, and fertilizer, but some were targeted at consumer goods, especially food. More precisely, price controls were imposed, and

Figure 10-2 Retail Price Inflation in Tokyo
(Official prices, change over 12 months)



Source: Management and Coordination Agency, *Historical Statistics of Japan*, Vol. 4, 1988.

the government provided production subsidies (literally called “compensation for price gaps”) in order to cover the losses incurred by private producers.

- *Recovery Financial Fund (fukkin) loans*—the targets of these loans were designated priority industries, in particular the coal industry. Policy loans were provided by the Ministry of Finance to these industries. Government bonds (fukkin bonds) were issued to finance these loans. Most of these bonds were directly purchased by the Bank of Japan, which increased the money supply.

Economists still debate the merits and demerits of these policies. From the viewpoint of stopping inflation, they were clearly undesirable and had to be terminated as soon as possible. But from the viewpoint of real sector recovery, a delicate balance had to be struck between fighting inflation and sustaining output. Cutting these subsidies and loans immediately might have killed all remaining industrial activities.

The first attempt to stop the inflation was the deposit blockade of 1946. The government suddenly announced that (i) everyone now had an upper limit of 500 yen per month for the withdrawal of bank deposits; and (ii) existing

paper notes would be annulled unless they were deposited at the bank. Thus, people were forced to keep their money at the bank while inflation continued. This reduced the money supply to one-third and slowed inflation temporarily. But people naturally felt deceived by the government and the credibility of its monetary policy was lost. Soon, inflation accelerated again.

After the failure of the deposit blockade, different approaches to disinflation were proposed and hotly debated. Contested ideas were as follows:

- (1) *Accepting inflation*: in July 1946, Finance Minister Tanzan Ishibashi stated that a budget deficit and high inflation were acceptable as long as they prevented further output collapse and unemployment. He said that the present inflation in Japan was caused by supply shortages and not by excess demand. Thus, price stability called for supporting producers and workers. A sound budget in such a situation meant accepting a fiscal deficit.
- (2) *Shock approach*: in January 1948, Kihachiro Kimura, a socialist Member of Parliament, argued the opposite. He said that price stability was the precondition for output recovery. As long as inflation continued, people would hoard goods in anticipation of higher prices. This would reduce supply and raise prices even more. A bold anti-inflation policy was necessary to stop this vicious circle. The US government in Washington also shared this view.
- (3) *Gradualism*: the Economic Stabilization Board, as well as General MacArthur of the SCAP, feared that big-bang stabilization would devastate Japanese industries and lead to social crisis. They hoped to lower inflation step by step using subsidies, fukkin loans and US aid, while reducing these support measures over time.
- (4) *Conditional shock approach*: Prof. Hiromi Arisawa of Tokyo University recognized that an anti-inflation policy would reduce output temporarily. But he also knew that inflation had to be eliminated to end speculation and hoarding. He argued that *output must be raised by the planning method to 60 percent of the prewar level, then a strong anti-inflation package should be adopted*. Output would probably fall back to about 30 percent of the prewar level following this shock, but people could somehow endure this level, which actually prevailed in 1946. If

the anti-inflation policy was implemented too soon, without such initial output recovery, the shock would be too severe.

The policy which was actually adopted turned out to be close to what Prof. Arisawa proposed.

5. Priority production system, 1947-48

The priority production system (PPS) refers to a policy of concentrating scarce resources in a few strategically important industries to jump-start a recovery (though it is called a “system,” it is actually a policy). It is a type of economic planning. Recovery of a few key industries is expected to have positive spillover effects on the entire economy.

Prof. Arisawa was a member of the personal advisory group of Prime Minister Shigeru Yoshida. In July 1946, General MacArthur told Yoshida that he would allow Japan to import a small number of goods⁴. Yoshida ordered bureaucrats to prepare a wish list for imports, but the list they produced was too long. Yoshida asked his advisors to shorten the list. The following five items finally remained: steel, coal (anthracite), heavy oil, rubber, and buses.

MacArthur did not want to let Japan import heavy oil since it was in short supply globally. But Prof. Arisawa urged Prime Minister Yoshida to renegotiate with the Americans, saying that if Japan was permitted to import heavy oil, the Japanese government would promise to produce 30 million tons of coal. Heavy oil was an input to steel production, and steel was needed to rehabilitate coal mines. For Japan, coal was the only energy source which was domestically available. If enough coal was produced, the surplus could be distributed as an energy input to other industries.

MacArthur agreed to let Japan import heavy oil under this promise. Prof. Arisawa, who proposed the idea, became the chairman of the subcommit-

⁴ During the war, the Japanese government guaranteed compensation for any losses incurred by individuals or firms engaged in military production. In July 1946, the GHQ ordered to cancel this guarantee which drove a large number of firms into bankruptcy and default. Prime Minister Yoshida appealed to General MacArthur on the difficulties caused by this decision, to which MacArthur responded by allowing Japan to import certain products to ameliorate the situation.

tee responsible for producing 30 million tons of coal. In parallel, the Ministry of Commerce and Industry was also contemplating a similar plan. Prof. Arisawa's method was meticulous. He summoned the general directors and chief engineers of all coal mines in Japan to gather information. Based on actual coal deposits, veins, extraction speed, working hours and so on, he calculated the supply capacity. On the demand side, he estimated the possible coal use by the SCAP, power companies, railroads, and industries.

“Dig 30 million tons of coal” became a sort of national campaign. The Minister of Commerce and Industry visited the Joban Mine to cheer workers. In the streets of large cities, the daily output of coal was posted. The evening radio program sent words of thanks to hard-working coal miners all over Japan. The government secured inputs for coal mines using subsidies and *fukkin* loans, and provided special housing for coal miners. Although the actual delivery of imported heavy oil was delayed, the production goal was more or less realized. Domestic coal production in 1947 was 29.32 million tons. The output of key industries other than coal fell slightly short of targets in 1947. But the priority production system was continued in 1948 and most targets were achieved in that year. The economy began to rebound in 1947. But inflation was still high.

6. US policy in occupied Japan

Japan was under US occupation from 1945 to 1951. During this period, US policy on occupied Japan shifted significantly.

At first, the objective of occupation was the *demilitarization* of Japan. The US wanted to cripple the Japanese economy so that it would never be able to produce military goods again. No heavy industry was to be allowed. Remaining machines were to be stripped and shipped to the rest of Asia as reparations in kind. However, these policies were not actually implemented. The SCAP also introduced democracy, since the lack of democracy, such as business monopolies, lack of workers' rights and exploited peasants, was considered to be behind Japan's military expansion. The following three democratic reforms were executed by the order of the SCAP:

- *Zaibatsu breakup*—big businesses were accused of helping militarism

during the war. Group companies were broken up into separate entities. But this policy was later reversed and a new type of industrial group, called *keiretsu*, emerged⁵.

- *New labor laws*—the new laws guaranteed workers' rights on organizing labor unions, collective bargaining and basic working conditions.
- *Land reform*—all farmland of absentee landlords and holdings above certain limits were confiscated and sold to actual tillers. The sales price was low and high inflation quickly depreciated its real value. This increased the land ownership of farmers significantly, which was good from the viewpoint of equity and political feasibility, but land was now divided into too many small plots to conduct efficient farming, which was undesirable from the viewpoint of improving productivity. Family farming on a small scale has become the dominant trait of Japanese agriculture ever since.

In addition, a new constitution was drafted and implemented under pressure from the SCAP on May 3, 1947. The Japanese government now celebrates this day as a national holiday. Compared with the Meiji Constitution of 1889, the following features are noteworthy:

- Sovereignty rests with people.
- The emperor is a symbol of Japan with no political functions.
- Renunciation of war and non-possession of military forces (Article 9).
- Guarantee of basic human rights.
- Separation of power among legislative, administrative and judicial branches.

Article 9 is unique to Japan and has caused many heated arguments ever since. The full text of Article 9 runs as follows:

Aspiring sincerely to an international peace based on justice and order, the Japanese people forever renounce war as a sovereign right of the nation and

⁵ *Zaibatsu* is a group of large companies operating in many sectors that are owned by one holding company dominated by an influential family. *Keiretsu* is a looser collection of companies without a holding company at the top, whose member companies are related to each other through cooperation in finance and technology, mutual share holding, personnel rotation and the like. A pyramidal subcontracting structure in the automobile and motorcycle industries is also called a system of *keiretsu* companies.

the threat or use of force as means of settling international disputes.

In order to accomplish the aim of the preceding paragraph, land, sea, and air forces, as well as other war potential, will never be maintained. The right of belligerency of the state will not be recognized.

Although the possession of armed forces is explicitly prohibited by the constitution, Japan now actually has the Self-Defense Force. Hardliners want to revise Article 9 so that Japan can own a full military force without an acrobatic interpretation of the Constitution. Others want to keep Article 9 and abolish the Self-Defense Force.

But around 1947, US occupation policy shifted dramatically because of the start of the Cold War. Now the US wanted to strengthen Japan as a capitalist ally and an anti-communist base. Besides that, economic aid to Japan was becoming too burdensome for US taxpayers. Remilitarization and the economic recovery of Japan, including the rebuilding of heavy industries, were promoted. Socialist and labor movements were discouraged.

In addition, a policy gap existed within the US government. Washington demanded free markets and big-bang macroeconomic stabilization as soon as possible, but General MacArthur and his SCAP staff in Tokyo, who were called “New Dealers”—a group of people who supported official intervention at the time of the Great Depression in the 1930s—preferred gradualism with appropriate state roles.

7. Dodge Line stabilization of 1949

But this debate within the US government was ended when Washington sent Joseph Dodge to Tokyo in early 1949. Dodge was the president of Detroit Bank and a strong believer in the free economy. He ordered the following austerity measures to terminate inflation. His policy package was called the “Dodge Line.”

- Stop fukkin loans.
- Abolish all subsidies and raise utility charges.
- Strengthen taxation and cut expenditure.
- Have a “super-balanced budget”—the primary balance should be zero, which means the entire budget should be in surplus.

- Unify multiple exchange rates at 360 yen to the dollar.

In addition, Prof. C.S. Shoup, an American fiscal expert, was also sent to Japan to introduce a new tax system. His advice was adopted in 1950 and became the basis of Japanese taxation in the postwar period. It was a system with a heavy reliance on direct taxes, especially income and corporate taxes, which became a key feature of the Japanese tax system for a long time to follow. Japan had no broad-based indirect tax, such as VAT or general consumption tax, until 1989.

The Dodge Line stabilization was very successful in stopping inflation. But as feared, the shock on economic activity was severe and people expected a serious recession. Indeed, output soon began to decline. The Bank of Japan tried to supply liquidity against the order of Dodge. Prof. Arisawa felt that stabilization measures were adopted too soon; he thought that Dodge should have waited another year.

We do not know how serious this recession would have been, because another big event intervened. As the Japanese economy started to shrink, the Korean War (1950-53) broke out. Whatever the political implications of this war might have been, its impact on the Japanese economy was positive. The US forces used Japan as a supply base and procured great amounts of military and civilian goods. For Japanese industries, this was tantamount to a sharp increase in external demand, as in the export boom experienced during WW1. The recession ended quickly and the Japanese economy began to grow. Minor inflation also returned, but price stability was restored when the Korean War ended.

The Dodge Line stabilization also had important systemic implications. The Japanese economy had been a planned one since 1937 and economic control continued during the postwar recovery period. The achievement of price stability and the abolition of price controls and subsidies finally allowed Japan to return to a freer economy. Now the national economy could be deregulated and the role of government could be reduced. However, this did not mean a *completely* free economy; many elements of official intervention remained even after the end of planning.

Joseph Dodge is sometimes appreciated for ending inflation and restoring economic freedom, and sometimes criticized for implementing a

shock therapy (although its undesirable effect was cancelled by the Korean War). It is likely that most Japanese thank him rather than blame him.

Hiromi Arisawa and Saburo Okita discuss postwar recovery

Below is the excerpt from a dialogue which took place between these two gentlemen in 1986 (quoted from Arisawa, 1989, pp.33-34). Both of them were deeply involved in the postwar recovery policies.



Hiromi Arisawa (1896-1988)



Saburo Okita (1914-1993)

OKITA: What was your opinion on the nationalization of the coal industry [proposed around 1946-47]?

ARISAWA: As for me, I never thought of nationalizing it.

OKITA: Wasn't it at the time of Minister of Commerce and Industry Chosaburo Mizutani? A law on the nationalization of coal mines was proposed.

ARISAWA: I never thought of nationalization. As a matter of fact, Japanese coal mines were already operating under government's directives. In other words, coal mines were virtually under state control. Germany nationalized coal production, and I discussed the matter extensively in many articles. But I had no intention of nationalizing our coal mines. Of course, if some unexpected situation arose, nationalization would have been an option. But what was the point in nationalizing only coal?

OKITA: Around that time, there was a debate over the so-called *Chukan Antei Ron* [intermediate stabilization, which means gradual disinflation] between you and Mr. Kimura, the socialist Member of Parliament. Your idea was to stop inflation after the government permitted the output to recover to a certain level relative to the prewar size. But Mr. Kimura regarded disinflation as the prerequisite for output recovery. That was the key point in the debate. You wrote in an article that the two views differed in the prioritization of policies. It certainly was a big difference, from the viewpoint of your "economics of transition."

ARISAWA: Regarding the disinflation policy, my view at that time was to adopt the priority production system first to let the production recover to 60 percent of the prewar level, then stop the inflation by bold measures. If the big-bang disinflation were introduced before output recovery, it would have plunged the Japanese economy into a tremendous confusion, so it should not have been done. In either case, inflation stabilization would cause the output to decline. The crucial point was how deep this decline would be. Bold stabilization measures were unavoidable, but the timing must be chosen wisely, at a time when the priority production system proceeded further and the output reached 60 percent of the prewar level.

My view was that bold stabilization would surely cause the output to decline. Under the worst scenario, the output might even decline to a half. I insisted on the recovery to 60 percent of the prewar level, because if you had that level, the subsequent output decline would take it to the 30 percent of the prewar level. Since output actually fell to that level immediately after the war and people could somehow survive, to me that was the minimum acceptable level.

Before Mr. Dodge arrived in Japan, I went to see Mr. Fein, financial advisor of the GHQ's Economic and Science Bureau. His position was that Japan needed a big-bang anti-inflation program. I told him that it was too early to implement it. He tried to persuade me into early stabilization, but I never relented. The logic I have just explained was behind my insistence.

Chapter 11

The High Growth Era



The special train carrying new high school graduates to big cities in 1964 – These youths were called "golden eggs."

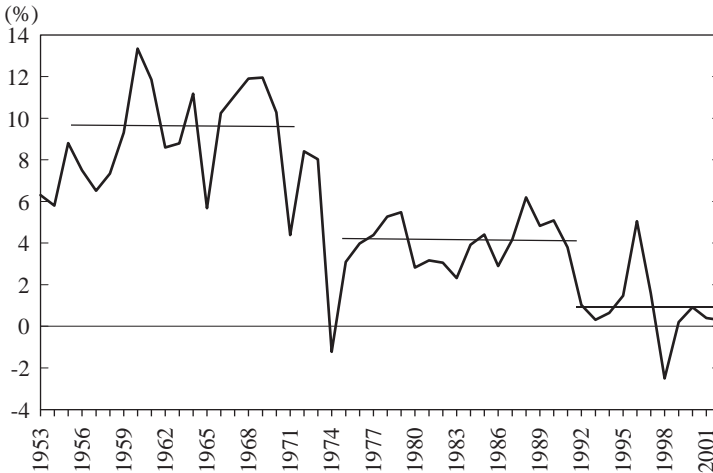
After the recovery period of 1945-49 and the Korean War from 1950 to 1953, the Japanese economy entered into a period of high growth. From the mid-1950s to the early 1970s, average real growth was approximately 10 percent. This very high and sustained growth transformed the Japanese economy and society significantly. By around 1970, Japan overtook West Germany and became the second largest economy in the capitalist world, as measured by GNP, after the US. Japan's catching-up process with the West was finally over. There are many issues to be discussed for this very interesting period. This chapter will discuss the following five topics: "rationalization" drive, macro-economic management, industrial policy, global re-integration, and social change.

1. Rationalization

During the preceding period of 1945-49, when economic planning was still in place and Japan was virtually a closed economy, the principal policy objective was a *quantitative* recovery. The recovery policy was pursued at any cost, ignoring efficiency. Subsidies, fukkin loans and US aid were provided.

But in the early 1950s, after the Dodge Line stabilization, the Japan-

Figure 11-1 Real GNP Growth since the High Growth Era



Source: Cabinet office, *Annual Report on National Accounts*, various issues.

ese economy entered another phase. The new situation can be described as follows.

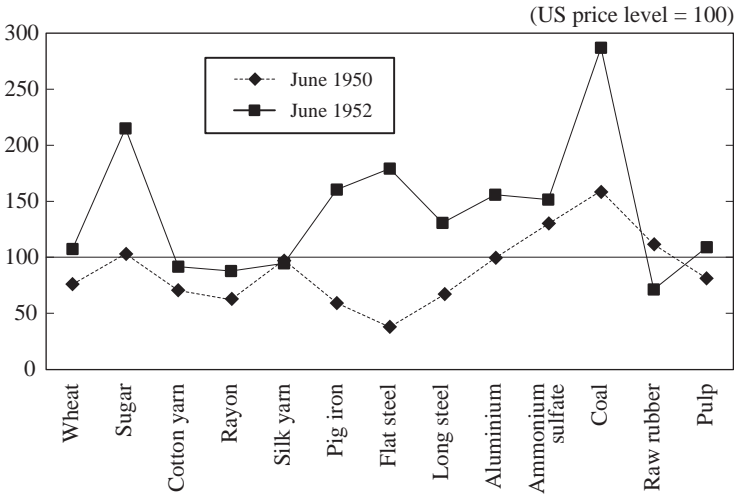
- Controls and subsidies were abolished and the market mechanism was largely restored.
- Private international trade began. However, this was not yet free trade; past legacies such as exchange control, import protection, foreign currency surrender requirement and administrative guidance were still in place.
- There was global inflation associated with the Korean War. But Japanese inflation was higher than the world average: between 1949 and 1951, Japanese wholesale prices rose 64 percent and consumer prices rose 8.5 percent. During the same period, wholesale price inflation in the US and the UK was 16.1 percent and 11.1 percent, respectively.
- A new fixed exchange rate of 360 yen to the dollar was established in 1949. This level was considered appropriate initially, but due to the Korean War inflation, the yen became overvalued.
- Japan regained political independence with the signing of the San Francisco Peace Treaty in 1951, and US economic assistance ended. At the same time, the Japan-US Security Treaty was concluded in 1951 (renewed in 1960), and Japan became a US ally in the Cold War.
- Japan had only small international reserves amounting to \$567 million at the end of 1950.

Under these new circumstances, Japanese industries had to strive for efficiency and competitiveness. The days of economic planning and physical expansion were over, and the challenge for cost reduction and higher quality began.

Before the outbreak of the Korean War in June 1950, Japanese industrial costs were roughly in line with those in the US. But by 1953, most of Japanese industrial inputs had become more expensive than those in the US. In particular, coal and steel were among the most expensive. These were precisely the two products targeted by the Priority Production System in 1947-48! The so-called “problem of high prices of coal and steel” reduced the competitiveness of all other industries that used them as inputs.

To cope with overvaluation and the loss of competitiveness, three

Figure 11-2 Japanese Industrial Prices Relative to US Prices



Source: Kosai, 1995, p.56.

policy options were theoretically possible: (i) yen devaluation; (ii) deflation through macroeconomic austerity; and (iii) productivity improvement. Japan chose the third option. The option (ii) was also partly adopted through a relatively tight macroeconomic policy stance, but option (i) was not even considered. Japan had just overcome the postwar crisis, unified exchange rates in 1949, and regained political independence in 1951. Under the Bretton Woods fixed exchange rate system, Japan felt that it was unacceptable, politically and diplomatically, to revise the newly installed exchange parity so soon.

Gorika, or rationalization, means improving productivity through investment in new technology and machinery and reorganizing production and management. This became a national economic goal in the early 1950s. During the Korean War, many companies enjoyed the US military procurement boom and accumulated profits. These profits were the main financial source for introducing new technology and machinery. However, labor unions often opposed rationalization because they thought this slogan was used as an excuse for laying off workers and imposing hard working conditions.

Some industries succeeded in rationalization but others failed and declined. Between coal and steel, the former industry was a loser and the latter was a winner. Both contributed to a rise in overall productivity—the coal indus-

try by disappearing and the steel industry by becoming more competitive. The coal industry was especially hard hit because the world energy source shifted dramatically from coal to oil, which was cheaper. Unlike coal, Japan had to import 90 percent of its oil because the domestic supply was severely limited (Japan's dependency on imported oil rose subsequently to as high as 99.7 percent).

The policy stance of the government was also crucial in industrial rationalization. In 1953-54, as imports surged and Korean War military procurement ended, Japan faced a balance-of-payments crisis. The Bank of Japan raised interest rates and the budget and the fiscal investment and loan program (FILP)¹ were tightened. The intention of the policy makers was to lower inflation to near zero (finally!) and encourage industries to reduce costs further. This policy was quite different from the one adopted after the WW1 boom in the 1920s. At that time, the main objective was to rescue weak companies and banks. By contrast, in the 1950s, they were asked to become more efficient or exit. It may be argued that, when an artificial boom ends and the business condition worsens, austerity measures are needed to prepare for the next period of sustained high growth.

Another important fact is that new instruments of industrial policy were created during the early 1950s. To replace the price controls, subsidies and fukkin loans of the early recovery period, the following new policy tools were introduced:

- Foreign exchange budget
- Capital control, including control of technology imports
- Preferential tax treatment for specific industries
- Creation of the Japan Development Bank and other policy banks
- A number of laws for promoting enterprise rationalization

Equipped with these policy tools, the Japanese government was now

¹ The fiscal investment and loan program (FILP) was a system in which funds from postal savings and pension contributions were mobilized to conduct investment and loans having public nature through state institutions and credit mechanism. It was a system unique to Japan and featured the size as large as about the half of the general budget and close coordination with the general budget in planning procedure and complementarity.

The two major events in 1960



The Miike miners, their families, and sympathizers fought hard against "capitalists" but they lost.



Protestation against the government over the renewal of the Japan-US Security Treaty.

ready to assist industries.

The year 1960 was a dividing year in postwar Japan. In that year, the labor dispute at Miike Coal Mine, located in Kyushu and operated by the Mitsui Group, came to a climax. The management of the mine announced a selective laying-off of workers, especially labor union leaders, to carry out rationalization. Coal miners protested and occupied the company's hopper facilities. This was considered an ultimate fight between all capitalists and all workers in Japan, but eventually the miners lost. Another big event in 1960 was a renewal of the Japan-US Security Treaty. The Kishi Cabinet of *Jiminto*, or the Liberal

Democratic Party (LDP), tried to force it through the parliament despite nationwide protests. A huge demonstration was staged which surrounded the parliament building and one female student was killed. But the treaty was renewed and the government subsequently resigned for causing the mess. With these two events, the days of direct confrontation in ideology and politics were over. The new LDP government, led by Prime Minister Hayato Ikeda, refocused national attention from politics to economics by proposing the “Income Doubling Plan.” He proposed to double Japan’s GNP in ten years, which required an average growth of 7.2 percent annually. Japan actually grew faster than this and Ikeda’s goal was achieved within six to seven years, much sooner than expected. Political radicalism was gradually replaced by a more cooperative management-labor relationship. There were some remnants of student and left-wing groups calling for violent revolution into the early 1970s, but they lost the support of the general public.

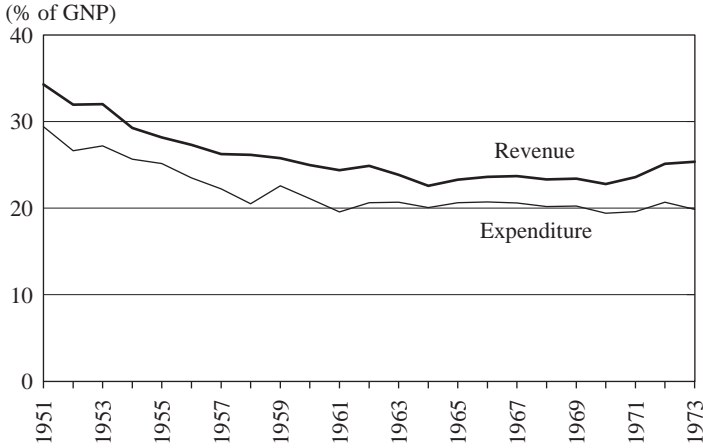
2. Macroeconomic management

During the 1950s and 60s, macroeconomic management had the following features.

The budget was generally sound and in surplus. In addition, the size of government relative to GNP gradually declined, especially during the 1950s. Monetization of fiscal deficits was prohibited. In fact, no government bonds were issued in postwar Japan until 1965. For this reason, there exists no statistics on government bonds or their interest rates prior to that time.

On the monetary side, the fixed exchange rate of 360 yen to the dollar was maintained from 1949 to 1971. The Bretton Woods system permitted occasional realignments of the exchange parity when “fundamental disequilibria” emerged, but Japan never considered changing its parity. Some people argue that the yen became gradually undervalued in real terms, because Japanese productivity growth was higher—and thus its costs became lower—compared with the rest of the industrial world. But this conclusion is debatable (McKinnon and Ohno, 1997). Japanese wages and prices were rising at speeds consistent with Japanese productivity increases, and there is no decisive evidence of a tendency for the yen’s undervaluation. This is quite in line with what we expect in a

Figure 11-3 Central Government Budget and Expenditure



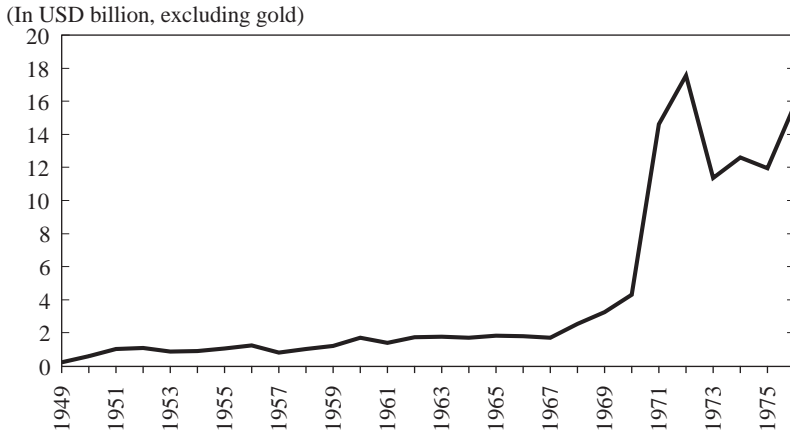
Source: Management and Coordination Agency, *Historical Statistics of Japan*, Vol. 3, 1988.

world of fixed exchange rates. A young country with unstoppable dynamism in industrialization naturally expands its global market share. Exchange rate adjustments can hardly reverse this power shift since it comes from a structural change in the real economy. The governments of more mature economies that demand the currency revaluation of such a country may only be fooling themselves and evading the true question. This can be said about postwar Japan as well as today’s China.

A fixed exchange rate constrains the monetary policy. In other words, when the exchange rate is fixed, the monetary policy is no longer an independent variable that can be determined by the monetary authorities, since the central bank is required to use the monetary policy to maintain the exchange rate at the committed level. This is called the “endogeneity” of the monetary policy under a fixed exchange rate. Once the yen/dollar exchange rate was fixed, the Bank of Japan had to continuously adjust its monetary policy to keep it fixed. In Japan, this policy constraint was imposed specifically as follows.

Since there was no free capital movement at that time, a balance-of-payments deficit basically meant a trade deficit. When the domestic economy overheated and imports surged, the Bank of Japan tightened money by raising short-term interest rates and through “window guidance” (telling commercial

Figure 11-4 International Reserves



Source: International Monetary Fund, *International Financial Statistics*, various issues.

banks to reduce new loans). Since Japanese firms depended heavily on bank loans, this had an immediate effect of curtailing investment. As the economy cooled down, the balance-of-payments pressure eased. Every time the economy grew too strongly, the Bank of Japan had to adopt this policy. This was called the “the ceiling of the balance of payments” or “stop-go policy.” This was practiced until the mid-1960s.

To cope with the balance-of-payments pressure under a fixed exchange rate system, West Germany frequently intervened in the foreign exchange market and also adjusted the Deutsche Mark occasionally. Since there was always an upward pressure on the DM, adjustments were always in the upward direction. In contrast, Japan chose macroeconomic austerity (tight money) as a tool for balance-of-payments adjustment. Thus West Germany accumulated international reserves while Japanese reserves remained small and stable until the mid-1960s (since then, however, the Bank of Japan has intervened aggressively and rapidly accumulated dollar assets).

Under this monetary regime, Japanese wholesale prices were virtually constant. From 1951 to 1971, the wholesale price index rose at an annual rate of 0.7 percent. This remarkable price stability was also experienced in the US and West Germany. Indeed, the early postwar period of the 1950s and 60s was a period of historically unprecedented global price stability. Japan “imported”

this global price stability in tradable goods by maintaining a fixed exchange rate. The consumer price index rose slightly faster, at an annual 4.4 percent. In those days, this phenomenon, called “creeping inflation,” was considered a macroeconomic problem². During the same period, nominal wages rose 10.2 percent, nominal GDP rose 14.5 percent, and M1 rose 15.9 percent (all in annual average increases). Meanwhile, real GDP rose by an average of 9.4 percent per year during 1951-71.

Japan joined the World Bank in 1952 and began to borrow from it in the following year. It soon became the World Bank’s second largest borrower after India. Japan continued to borrow from the World Bank until 1969. All World Bank loans to Japan were used for building industrial infrastructure such as power plants, highways and the Shinkansen (bullet trains). Unlike today’s ODA trends, no part of them was directed toward education, healthcare, rural development or other social-sector programs. World Bank loans were made through the Japan Development Bank, which were then on-lent to the proposed industrial projects. This procedure was called the “two-step loans.” It is noteworthy that World Bank loans financed less than 1 percent of total domestic investment. Japan financed its vigorous investment in this period almost entirely through domestic savings. There was virtually no receipt of FDI, let alone portfolio investment, from abroad. But Japanese firms were extremely active in importing technology, and the government strongly supported it.

3. MITI and industrial policy

The Ministry of International Trade and Industry (MITI) was created in 1949 by merging the Ministry of Trade and Industry, the Coal Agency, and the International Trade Agency. Later, in 2001, MITI was renamed to the Min-

² It should be noted, however, that differential inflation across different goods and services does not necessarily imply economic disequilibrium. If wage rates and other factor prices are assumed to be equalized across all industries, industries with higher productivity growth can achieve faster price reduction relative to industries with low productivity growth. The fact that Japanese consumer prices rose faster than its wholesale prices reflects higher productivity growth in the industries heavily represented in the former (machinery, automobile, electronics, etc) than the industries included in the latter (food, housing, services, etc). This argument is formally presented in the Balassa-Samuelson Theorem in international economics.

istry of Economy, Trade, and Industry (METI).

During the mid 1950s to the early 1970s, MITI played a role in Japanese industrialization, but economists still debate its importance. Was high growth achieved *because of* MITI or *despite* it? Some affirm that MITI's policies were crucial, while others argue that they were a negative factor overpowered by private dynamism. Still others say that MITI's role was insignificant or neutral. Some industries succeeded without official promotion (consumer electronics, cameras, motorbikes, pianos, watches, calculators, etc). Other industries failed even with official support (coal, aluminum refining, nuclear fusion, main-frame computers, etc). As for the automobile industry, there were both rejection and acceptance of official intervention. MITI tried to merge automobile companies prior to trade liberalization because domestic producers were considered too small and numerous to compete effectively with the American giants. But automobile companies refused MITI's initiative, remained separate, and did very well subsequently (see the box on Honda at the end of this chapter). However, it should also be recalled that the automobile industry was protected with high tariffs in its early stage of development.

There are also econometric studies on the effectiveness of MITI policies, but the results remain inconclusive and depend on the data and the researcher. Some studies examined whether targeted industries on average achieved higher growth than those without support. But partly because some industries received support for downsizing, and partly because underlying growth rates differed across industries, such a test is not a fair evaluation. Using econometrics to evaluate industrial policy is extremely difficult due to the impossibility of constructing a convincing "counter-factual" (how Japanese industries would have developed had MITI not intervened). The contention of this book is that private dynamism was primary but policy also played a useful role in Japan. This conclusion also applies to earlier industrialization in the Meiji period.

Unlike Japan's unvarying vision on the importance of industrialization and the role of government, the development policy of the World Bank has oscillated greatly. In the early postwar period, World Bank loans were provided primarily for industrial development. In the 1970s, social sector programs were introduced to gradually replace industrial projects. Throughout the 1980s, the

World Bank consistently denied the effectiveness of selective industrial policy, in which the government targeted and supported certain industries. This free-market ideology was strongly influenced by the so-called neoclassical development economics. However, World Bank programs began to regain balance in the 1990s. Its *East Asian Miracle* report (1993) admitted that selective industrial policy sometimes worked in the past, though only for Japan, Taiwan and Korea. The 1997 *World Development Report* further recognized the possibility of selective industrial policy for countries with strong institutions (meanwhile, countries with weak institutions were advised to strengthen them first). In the following several years, the concern of the World Bank shifted significantly from economic development to poverty reduction. But since around 2002, it has begun to refocus on industrial promotion and infrastructure development as a source of growth.

Industrial promotion measures adopted by the Japanese government were no different from those widely practiced elsewhere in the world: preferential taxes, subsidies, low-interest policy loans, R&D assistance, SME promotion, entry restriction, coordination of output, investment and exports, building infrastructure, and the like. While the list of measures was similar, it can be said that MITI implemented them far more effectively than other countries. In addition, MITI had a set of softer instruments for sharing information and organizing actions among various stakeholders including: (i) creation of visions and targets, (ii) *shingikai* (deliberation councils), (iii) close links with business associations, (iv) administrative guidance, and (v) human networks through personnel rotation and *amakudari* (assumption of high posts in private firms under MITI's influence after early retirement)³.

It is often said that MITI chose target industries by the *income elasticity criterion* and the *productivity criterion*. In other words, industries whose global demand was expected to grow strongly and whose productivity was expected to rise quickly were selected for promotion. But this explanation is a bit too simple and obvious. Certainly, most countries would like to do this if it

³ For more on these policy measures, see Johnson (1982), Itoh et al (1988), Okimoto (1991), and Komiya et al (1988). As for regulation on FDI firms such as local contents requirement, technical transfer and export-import balance requirement, Japan did not have to consider them since its growth was not dependent on the attraction of FDI.

were possible. The real question was how MITI did this successfully—how industrial selection was made and how wrong decisions were avoided in practice. We must ask concretely how needed information was collected, how demand, productivity and the state of competition were forecasted, and how the potential of each company and industry was evaluated. In choosing industries, MITI did not rely on existing formulas or econometric models as the main source of information. What is perhaps most amazing is the fact that crucial information and correct intuition naturally emerged in MITI's daily contacts with the private sector.

There are other theoretically interesting issues concerning the industrialization in the 1950s and 60s. Let us discuss two of them.

Excess competition—one of the most important reasons for official intervention throughout the prewar and postwar period was excess competition. At the time of economic recession, the Japanese government frequently required industries to agree on output cartels, scrap and consolidate excess capacity, and accept corporate mergers. In addition, it often resorted to export quota allocation to forestall the accusation of “torrential exports” by its trading partners. Liberal economists contend that excess competition is a term in contradiction, and its validity highly doubtful (Komiya et al, 1988, pp.10-11). But other economists accept the possibility of excess competition to the serious damage of national welfare if certain conditions are present, such as shortages of information, violation of intellectual property rights, increasing returns to scale (the so-called scale merit), and the fallacy of composition in sales promotion (Murakami, 1984). For example, prewar recessions were often aggravated by the collective behavior of producers which expanded sales to compensate for reduced prices, which further accelerated price declines. In industries which can achieve cost reduction in proportion to the size of capital equipment, overcapacity becomes the norm as every producer rushes to invest. In developing countries where copied products circulate freely, producers with high technology and strict observance of laws are the first to be eliminated, a situation which can hardly be called desirable from the viewpoint of sound industrial development.

Infant industry promotion—this is a classical theory of industrialization first

proposed in the 19th century. In a nutshell, it says that burgeoning industries with initial high cost should be temporarily protected by tariffs if they can reduce cost as time passes and experience is accumulated. There are also well-known caveats for this argument, such as the condition that later profits, properly discounted, should exceed initial protection cost. Again, the existence of increasing returns or the so-called *learning effect* is the key determinant of the validity of infant industry promotion. Neoclassical economists contend that, while this theory is beautiful on paper, actual governments seriously lack the ability to choose the right industries or resist political pressure. If implemented, this policy will only lead to the permanent protection of hopeless industries at a huge cost to the national economy. This type of counter-argument is called the *political economy of protection*. But can we assume that all governments are stupid and incapable? In East Asia where industrialization is proceeding in certain recognizable order and pattern, is it really true that latecomers like Vietnam and Myanmar have nothing to learn from the experiences of Thailand and Malaysia in choosing industries and formulating policies?⁴

Quite a few Western economists believe that these ideas are already discredited and outdated in the age of global mega competition and free capital mobility. They flatly reject their value as policy advice to the developing world. However, most Japanese development economists do not agree with this view. According to them, these old arguments contain an element of truth and can be resurrected and applied even today provided that proper modifications are made to reflect the current situation.

4. Reintegration into the global economy

Table 11-1 illustrates the main steps which Japan took to re-integrate

⁴ It should be noted, however, that developing countries today are required to be integrated into the global free trade system in their early stages of development through WTO and FTAs. This situation of lost tariff rights is similar to what Japan had to cope with during the Meiji period. We must fully recognize the fact that latecomer countries today have little freedom in tariff policy necessary for the execution of infant industry promotion.

Table 11-1 The Road to Global Economic Re-integration

1951	US occupation ends; political independence restored
1952	Japan becomes a member of the IMF and the World Bank
1955	Japan joins GATT; however, many countries refused to grant full trade rights to Japan and trade discrimination against Japan continued
1956	Japan joins the United Nations
1964	Japan joins the OECD; IMF Article 8 status attained (no exchange restriction on current-account transactions); the Tokyo Olympics held (hosting the Olympic games often accelerates growth and boosts national pride)
Late 1960s	Tariff reductions implemented

itself into the global economy.

The market mechanism was restored by the Dodge Line stabilization in 1949, but this did not mean a completely free economy. On the contrary, many policy measures continued to regulate the markets. One of them was import protection. Japan's trade barriers had been high during the 1920s and 30s, and with the intervening period of trade interruption during the war and US occupation, tariff protection continued into the 1950s and 60s. However, the Japanese government was determined to lower tariffs in an effort to rejoin the world economy and implement the GATT Kennedy Round which required comprehensive tariff reduction by all member countries. Transition to a more liberal trade system was also necessitated for political and diplomatic reasons.

Japan's trade liberalization in the 1960s had the following salient features: (i) it was executed gradually and in a well-planned manner; (ii) tariff reduction was closely linked with industrial promotion measures to strengthen competitiveness; and (iii) the government used international commitments to avoid domestic political capture. Removal of import barriers was carried out under the very strong "ownership" (policy autonomy) of the Japanese government in close consultation with the business community. Since trade liberalization schedules were pre-committed and considered non-negotiable, producers concentrated their efforts on improving efficiency rather than lobbying for the extension of protection. Official support was provided according to actual performance, such as export volume, rather than political connection. Domestic firms competed fiercely with each other, but the competition was coordinated by the government so as to prevent the dropping-out or bankruptcy of any firm.

Thus, competition and cooperation coexisted in a situation described as “compartmentalized competition” by Yasusuke Murakami (1984).

The process of trade liberalization in postwar Japan was ideal in the sense that it was wisely used for obliging domestic industries to become more competitive. But its successful execution required a very high institutional capacity. For most developing countries, this is not an easy task.

While trade barriers were gradually reduced, capital control was not abolished during the high growth period. It was removed step by step from the 1970s onwards. The most important step in liberalizing capital transactions was the Foreign Exchange Law of 1980, which belongs to a much later period than the one we are discussing.

5. Social transformation

Economists still argue about the true cause of high growth in the 1950s and the 60s. Some say that vigorous investment was the key. Others assert that it was export-driven. Some Keynesian economists, like Hiroshi Yoshikawa (1997), believe that the most important force was robust consumption. However, it is very difficult to single out one factor as the *only* cause, since all variables were interrelated.

At any rate, the consumption boom was certainly a very prominent feature of the high growth era, whether it was the cause or the effect. In the late 1950s, all consumers wanted to purchase washing machines, refrigerators, and black-and-white TVs—these were called “three divine devices.” In the 1960s, color TVs, cars, and “coolers” (air conditioners) attracted everyone’s attention—they were called “three C’s.” As markets and production scale expanded, costs and prices declined, which in turn further stimulated demand. The mass production system also generated a white-collar middle-class who purchased these goods. This virtuous circle continued until the early 1970s.

Before the high growth era, the basic lifestyle of the Japanese people in terms of food, clothing, and housing changed very slowly. Before WW2, most people generally ate Japanese food such as rice, miso soup, pickled vegetables, fish, natto beans, and sake, and wore Japanese kimono, *geta* (wooden sandals) and *zori* (a kind of sandals), and lived in wooden houses divided by

Table 11-2 Four Major Pollution Lawsuits of Postwar Japan

	Cause and Symptoms	Accused Enterprise(s)	Final Ruling
Minamata Disease (Minamata City, Kumamoto Prefecture)	First reported in 1956. Water contaminated by organic mercury caused numbness, speech disturbances, narrowing of field of vision, mental disorders, loss of muscle coordination and other neurological disturbances.	Chisso Corporation	The plaintiff won in March 1973
Itai-itai Disease (Jintsu River, Toyama Prefecture)	First reported in 1955. Water pollution by cadmium caused severe pain. "Itai-itai" means "it hurts, it hurts."	Mitsui Kinzoku (Mitsui Mining and Smelting Company)	The plaintiff won in August 1972
Niigata Minamata Disease (Agano River, Niigata Prefecture)	First reported in 1965. Water pollution by organic mercury; same disturbances as Minamata Disease.	Showa Denko	The plaintiff won in September 1971
Yokkaichi Asthma (Yokkaichi City, Mie Prefecture)	Petrochemical complexes which started operations in the late 1950s caused air pollution by SO _x and other substances. Major symptoms included sore throats, coughing, respiratory organ troubles, vertigo, nervous diseases, and eye irritation.	Mitsubishi Petrochemicals, Showa Yokkaichi Sekiyu, and four other companies	The plaintiff won in August 1972

paper sliding doors. People slept on tatami mats with futon. But all this changed dramatically during the 1960s. Bread, coffee and western food became common. Very few people now wear kimono today except on New Year Holiday and other special occasions. Concrete and steel-built apartments with blinds and curtains became popular. Urbanization progressed. Big families were replaced by nuclear families. Individualism began to replace group orientation. Among all periods in Japanese history, perhaps the high growth era brought the greatest changes in lifestyle.

For a long time, the labor surplus persisted and wages remained depressed in the Japanese economy. But high growth brought a critical change. Around 1960, the labor surplus turned into a labor shortage. The so-called "turning point" was finally reached as in the Arthur Lewis model⁵. Special

⁵ The Lewis model divides the economy into the traditional sector (engaged in agriculture) and the modern sector (engaged in urban industries). It is a development model that postulates labor migration from rural areas to cities as the modern sector expands and absorbs more labor. When this process progresses sufficiently, a new phase, called the *turning point*, is reached in which rural surplus labor disappears and wage increase is required in order to employ more workers.

trains were prepared to transport fresh graduates from middle and high schools in rural areas to big cities as new workers. As the labor market tightened, these young workers were highly demanded by industries as “golden eggs.”

During the high growth period, environmental destruction caused by rapid industrialization became intolerable. Water and air quality deteriorated. A people’s grass-roots movement rose against commercial irresponsibility and official negligence, culminating in four principal lawsuits against public hazards as shown in Table 11-2. All of these lawsuits ended with the victory of the plaintiff consisting of affected residents.

In the political sphere, two conservative parties merged to become the Liberal Democratic Party (LDP) in 1955, which has dominated Japanese politics ever since. The LDP lost the prime minister’s seat from 1993 to 1996, but subsequently regained it. This political situation, with the powerful and conservative LDP and weak opposition parties, has been called the “1955 Regime.” In many senses, the LDP is much like the Seiyukai Party in the prewar period. Its support base is rural. The LDP distributes public money for rural investment and farm subsidies. With the coming of Prime Minister Kakuei Tanaka (in office during 1972-74), the LDP’s ruling style characterized by rural money politics for winning votes became firmly established, and it still continues today. Many LDP politicians want to continue building Shinkansen (bullet trains) routes and highways despite the severe budget crisis.

In comparison with prewar politics punctuated by dramatic power shifts and frequent crises, the postwar political structure in general and the 1955 Regime in particular have been highly static (Banno, 2004). The absence of an opposition party with sufficient capability to run a government, such as the Minsei Party in the prewar period, partly explains this. In a situation where no serious political competition existed, the LDP delegated national security issues to the maintenance of good relationship with the United States and the assurance of the US military umbrella, and confined domestic political agenda to such socio-economic issues as growth, trade negotiations, environmental protection and social security. This led to the political regime in which serious debates and power shifts rarely occurred. Recent political events suggest that 21st century Japan may move gradually toward the two-party system, but its realization is far from certain.

Soichiro Honda: A Postwar Business Hero

Postwar Japan produced many business heroes. Among them, Soichiro Honda (founder of Honda Motor Company), Konosuke Matsushita (founder of Matsushita Electric Industrial Company, with brand names *National* and *Panasonic*) and Masaru Ibuka and Akio Morita (founders of Sony) are particularly famous. They were all engineer-type inventors, who began in a tiny factory with a great vision and desire to produce new and better products to conquer the Japanese—and world—market. They encountered a number of failures and hardships but persevered until great success was reached. They were driven by the unquenchable *monozukuri* (making things) spirit, not by high salaries, quarterly profits or balance sheets. After building a business empire, each of them became interested in the non-business world, including education, culture, the environment and economic diplomacy.

Soichiro Honda was a son of a blacksmith in Shizuoka. When he was a boy, he learned the techniques of bellowing, using furnaces, and casting from his father. From early on, he was crazy about mechanics. When his father opened a bicycle shop, Soichiro helped him as a repairman.

After finishing secondary school, Soichiro worked for an automobile repair company. After six years, he was promoted to head the company's Hamamatsu branch when he was twenty-one. He was not satisfied with just repairing automobiles, so he started to experiment to create new parts.



Soichiro Honda (1906-1991)

In those days, virtually all cars were imported, and domestic production of parts was an important goal for the industry. Soichiro tried to produce piston rings, a crucial engine part, by himself but it was not easy. After realizing that experience must be supplemented by theory, he studied metallurgical and mechanical engineering at Hamamatsu Technical School.

After the war defeat, Soichiro established a new company to produce motorbikes which later became *Honda Giken Kogyo* (Honda Motor Company). Honda's first motorbikes, the Dream (146cc) and the Cub (50cc), were big hits. Around 1954, Honda faced a crisis due to fierce competition and technical problems with its products, but the crisis was overcome by the efforts of Takeo Fujisawa, the competent

marketing manager.

Soichiro wanted to enter—and win—the Tourist Trophy (TT), an international motorbike race in Britain. He created a special team to manufacture a powerful motorbike for this race. In 1959, Honda first participated in the TT; and in 1961, Honda achieved complete victory by winning 1st to 5th prizes in both 125cc and 250cc classes. At the same time, Honda introduced the Super Cub, a popular 50cc motorbike with an efficient engine. It became an even bigger hit with consumers.

In the 1960s, Honda began to produce automobiles. This move was accelerated by the MITI's plan to consolidate Japanese auto makers to compete with America. If this policy was implemented, newcomers like Honda would be excluded, so Honda rushed to enter this market. The first popular small car, the N360, sold well but was later criticized as defective.

In 1970, a tough environmental law was enacted in the United States requiring automobiles to drastically reduce emissions. Honda became the first auto maker in the world to clear this standard in 1972 with its newly invented CVCC engine. This proved that Honda had the highest technology in automobiles as well as in motorbikes. It also stimulated the other Japanese auto manufacturers to produce fuel-efficient, low-emission cars.

Let us quote some words of Soichiro Honda.

“The presidents of this company have all been unruly and unpredictable, including myself.” “So all of you must work very hard to support the company.” (addressing to the company staff at Honda's 35th Anniversary, 1983)

“All presidents raised issues with me. A president who doesn't do that is useless.” (recalling the time when Presidents Kume and Kawamoto both advocated a water-cooled system when Soichiro insisted on an air-cooled system, in developing the CVCC engine)

“Don't be a victim of the company. You must work in order to enjoy your own life.” (to new recruits)

“Everyone dreams and hopes for a success. I believe a success comes only 1 percent of the time, supported by the 99 percent of failures. The final success is attained by challenging the new world with a pioneer spirit and after the repeated use of failures, reflection and courage.” (at the time of receiving an Honorary Doctor's Degree from the Michigan Institute of Technology, 1974)

“It's OK. Your greasy hand is good. I very much like the smell of grease.” (when a worker tried to shake hands with Soichiro and, realizing his greasy hand, quickly withdrew it)

Sources: Miyamoto, 1999; Honda Soichiro Study Group, eds, *The Anaclets of Honda Soichiro*, Shogakukan, 1998.

Chapter 12

Economic Maturity and Slowdown



Crazy Prices – Consumers rushed to supermarkets to stock up tissue paper and toilet paper, in Minato-ku, Tokyo, 1973.

Japan's high growth came to an end in the early 1970s. Subsequently, the annual growth rate fell to an average of about 4 percent in the 1970s and 80s, and further down to near zero in the 1990s. The government called this "stable growth." Why did growth slow down in the early 1970s?

One important fact that we should keep in mind is that this growth slowdown was common to all industrial countries, including those in North America and Western Europe. Therefore, the reasons for slowdown must have been at least partly global, although domestic factors may also have played a role. In addition, inflation accelerated in all industrial countries in the 1970s. This also points to a globally common cause. Let us look at the domestic and international causes of Japan's slowdown, respectively.

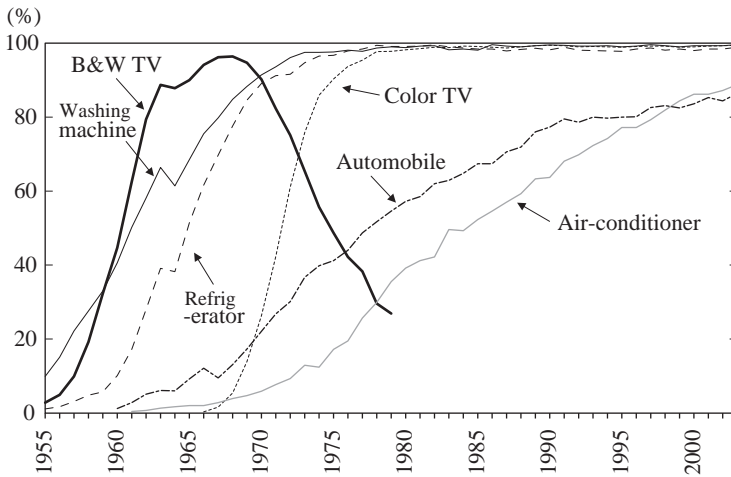
1. The end of catching up

On the domestic side, transition to lower growth was natural and inevitable because the Japanese economy had caught up with the US and European economies and matured. During the catching up process, a developing country can (selectively) import technology and new systems which exist in the developed world. But when you become part of the developed world, you can no longer copy others but must create something new in order to grow. Naturally, clearing your own path is harder and slower than following someone else's path.

In terms of per capita GNP (measured in actual dollars, not in PPP dollars—see below), the income ratio between Japan and the US was 1 to 14 in 1950, 1 to 6 in 1960, and 1 to 2.5 in 1970. This narrowing of the bilateral income gap was the result of Japan's much faster growth compared with the US. After the 1970s, the fluctuation of the yen/dollar exchange rate began to disturb this income comparison. The income ratio was 1 to 1.3 in 1980 and 1 to 0.93 in 1990, which means Japanese income was temporarily higher than US income in that year. But since Japanese prices were in general much higher than in the US, this does not necessarily mean the Japanese people had attained a higher living standard than the Americans in 1990.

To make adjustments for different price levels, the concept of *purchasing power parity* (PPP) is used. The same amount of money can buy much

Figure 12-1 The Ratio of Households Owning Consumer Durables



Sources: Cabinet Office, *Trends in Household Consumption*, 2003, and others.

in countries with low prices and only a little in countries with high prices. Consumers in China, where prices are low, could enjoy much higher living standards than consumers in Japan, where prices are high, if they had the same income measured in a common currency. The real income of Japanese consumers must therefore be discounted by the extent that Japanese prices are higher than Chinese. This adjustment is necessary to compare income and living standards across countries correctly. Measured by this PPP criteria, Japan's per capita income surpassed that of Italy in 1966 and that of Britain around 1975. Japan did not overtake the US, West Germany or France but came close to them by the mid-1970s. Thus, it can be said that Japan was firmly in the highest income group by the 1970s.

Another way to measure income is by affordability of consumer durables. It took 10.7 months of average salary to buy a new car (the basic model of Toyota Corolla) in 1966, but Japanese workers had to work only 4.0 months to buy a car in 1974. In 1991, a new car could be had after 2.4 months of working. By the mid-1970s, virtually all Japanese households were equipped with washing machines, refrigerators, vacuum cleaners, telephones and color TVs (automobiles and air-conditioners were not as widely owned because they were not considered necessary for some households).

2. The oil shocks in 1973-74 and 1979-80

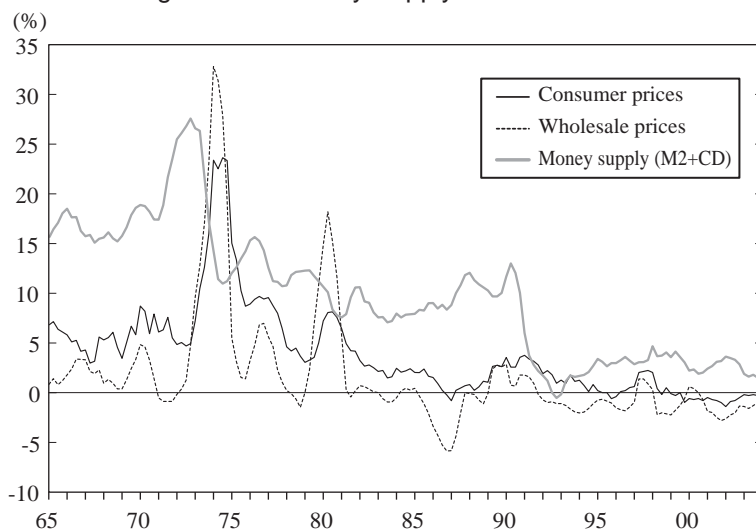
On the external side, there were two major economic shocks in the 1970s which were common to all countries: the oil shocks and the beginning of general floating of major currencies. These are now examined more closely.

The price of crude oil was low and stable for a long time in the post WW2 period. But in autumn 1973, the Organization of Petroleum Exporting Countries (OPEC) decided to raise it dramatically from \$2 to \$11 per barrel and reduced their export volume to industrial countries by about 10 percent. The oil price was again raised to about \$30 per barrel in 1979-80. Both of these price increases were associated with the political and military situations in the Middle East. The first oil shock was the result of the Fourth Middle Eastern War and the second was in response to the Iranian Revolution.

The OECD countries depended heavily on imported oil with the average import ratio of 67 percent of domestic use. However, Japan's foreign oil dependency, at 99.7 percent, was particularly high. In Japan, the first oil shock caused both wholesale prices and consumer prices to surge beyond what could be explained only by the oil impact. Between these prices, wholesale prices rose faster. People were thrown into panic and tried to hoard as many daily necessities as possible, such as toilet paper, soap and kerosene. But this stocking behavior collectively led to empty shelves in supermarkets, although the flow supply was sufficient to cover the flow demand. Seeing empty shelves, people panicked even more. Shortages also spread from consumer goods to industrial inputs. Speculative hoarding by traders was suspected of further accelerating the price increase. This phenomenon was called *kyoran bukka* (crazy prices). In 1974, Japan registered its first negative growth (-0.8 percent) in the postwar period. "Stagflation" was the term that economists used to describe the simultaneous occurrence of recession and high inflation.

On close examination, however, the money supply was increasing rapidly and inflation was already accelerating in the early 1970s, prior to the first oil shock. This was due to the Bank of Japan's foreign exchange intervention to support the dollar (buying dollar assets from the market in exchange for yen assets). The receipt of yen assets by the private sector had the effect of pushing up the Japanese money supply. Moreover, expansionary fiscal policy

Figure 12-2 Money Supply and Inflation



Sources: Bank of Japan, *Financial and Economics Statistics Handbook*; and Ministry of Public Management, *Consumer Price Indices*, various issues.

fueled the inflation in the early 1970s. This was caused by Prime Minister Kakuei Tanaka's "Japanese Archipelago Rebuilding Plan," announced in 1972, which called for massive public investment to construct highways and Shinkansen railways to connect rural areas with urban centers. Fiscal activism created an economic boom and land speculation became rampant along the proposed routes of large-scale transportation projects.

However, in the wake of the first oil shock and "crazy prices," Tanaka's "Rebuilding Plan" had to be abandoned. Monetary policy was also gradually tightened. The Bank of Japan was severely criticized for causing high inflation, and in response, it became more "monetarist." The Bank of Japan began to target monetary growth to avoid inflation as the monetarist school of macroeconomics teaches.

As a part of structural reform, the government tried to reduce energy consumption of Japan and promote "rationalization" (i.e. downsizing and closure) of energy-intensive industries, including paper and aluminum refining. The national campaign was launched to turn off unnecessary lights, set the room temperature lower in winter and higher in summer, and discourage commercial neon signs. However, substantial energy saving would require an over-

all improvement of energy efficiency, not just turning off lights more frequently. This would take time since new technology and capital investment were required. In this regard, Japan's effort to economize energy relative to economic activity turned out to be brilliantly successful in the long run. By the early 1980s, Japan became the most efficient energy user among industrial countries. The Japanese automobile companies also succeeded in mass producing energy-efficient cars, many of which were exported to overseas markets, especially to the US (see the story of Soichiro Honda in the box of chapter 11).

Compared with the first oil shock of 1973-74, the second oil shock of 1979-80 had a relatively minor impact on the Japanese economy. Inflation rose, but not very much, and the economy continued to grow.

3. Cause or effect?

Economists debated the nature of the oil shocks. There were two diametrically opposed interpretations, and the debate still remains unresolved. Jeffrey Sachs, Michael Bruno and Barry Bosworth took the position of the supply shock view. Hans Genberg, Alexander Swoboda and Ronald McKinnon supported the global monetarist view.

The supply shock view: the first—and perhaps more popular—view of the oil shocks says that they were *supply shocks* caused by OPEC's political power. As the oil price was raised exogenously, the aggregate supply curve (in the standard macroeconomics textbook)¹ shifted up and to the left. This led to higher prices and lower output, namely, “stagflation.” Additionally, aggressive wage increases demanded by trade unions further contributed to global inflation. According to this view, the world had to solve its supply side problems, including energy shortages and wage rigidity, to stabilize the situation.

¹ In the graph measuring the price level vertically and income horizontally, a downward-sloping aggregate demand curve is derived from the IS-LM analysis, representing the demand side of the national economy. Similarly, an upward-sloping aggregate supply curve is constructed from the supply side using the production function and the labor market. Equilibrium is found where these two curves intersect. An oil shock, if it is to be regarded as a supply shock, shifts the aggregate supply curve upward to the left. The equilibrium point moves in such a way that the price level rises and income declines.

The global monetarist view: the alternative view argues that the high inflation was caused by global monetary expansion, which in turn was caused by the breakdown of the Bretton Woods fixed exchange rate system. As the Japanese and European central banks tried to buy up dollars to prevent sharp appreciation of their currencies against the dollar during 1971-73, the money supply was increased in all major countries. Global excess liquidity ignited commodity price inflation even before the first oil shock occurred. The oil shock was the *final result* and not the cause of high inflation, which was generated by the oversupply of global money. OPEC is always aggressive, but attempt to raise the oil price succeeds only when there is too much global liquidity. Thus, the stagflation in the 1970s should be explained by the instability of the international monetary system.

4. Floating of major currencies

The Bretton Woods system (1944-71) was a dollar-based and US-centered fixed exchange rate system. It achieved unprecedented global price stability, high growth and trade liberalization from the 1950s onward. But the system began to show strain in the mid-1960s.

As the US, the center country, began to adopt an expansionary macroeconomic stance, global inflation emerged in the late 1960s. There was downward pressure on the dollar and corresponding upward pressure on gold and the European and Japanese currencies in the foreign exchange market. In August 1971, US President Richard Nixon finally announced that the US dollar was no longer to be fixed to gold and, with this announcement, the dollar began to float. But the Bank of Japan and the central banks in Europe intervened massively to purchase the dollar to avoid the appreciation of their currencies (appreciation meant the loss of export competitiveness of that country). From 1971 to 1973, the world tried to re-peg the major currencies at new exchange parities, but the effort failed. Under severe speculative attacks, the world entered into an era of floating major currencies in early 1973.

The general floating of major currencies has continued to this date. Soon, it was discovered that a pure float was too volatile and injurious to national economies. In 1985, the Group of Five (G5)—the US, Japan, West

Germany, France, and the UK—jointly intervened to lower the overvalued dollar (the Plaza Agreement). In 1987, the Group of Seven (G7)—G5 plus Italy and Canada—again intervened to stabilize the dollar at a lower level (the Louvre Accord). Since then, such joint interventions have been tried occasionally to correct extreme currency movements. Among major central banks, the Bank of Japan has been particularly averse to excessive yen appreciation and often intervened unilaterally to prop up the dollar (by buying dollars and selling yen). This has resulted in rapid accumulation of international reserves to the highest level in the world. Meanwhile, European countries continued to push toward regional monetary union since the 1970s. The historical achievement was completed when the euro was created in 1999 and its paper notes and coins began to circulate in 2002.

The Japanese economy is particularly vulnerable to the fluctuation of the yen/dollar exchange rate for several reasons. First, the yen is a lone floater as there is no yen zone in Asia—unlike the euro area in Europe or the global dollar zone for the US. Second, most of Japan's trade and virtually all of its financial transactions are conducted in dollars. Third, Japan, as the largest creditor country, has accumulated a huge amount of unhedged dollar assets which are concentrated in US government bills and bonds, and whose values depreciate whenever the dollar falls. Fourth, Japanese industries exhibit relatively low *exchange pass-through* (the degree of domestic price response to exchange fluctuations) and their products contain relatively high domestic value-added. When the yen appreciates, their yen-denominated costs also rise almost proportionately, leading to the loss of competitiveness. As a result, Japanese output and investment stagnate, prices and wages are suppressed, and financial strain is created. This situation is called *endaka fukyo*, or high yen-induced recession.

5. Delayed systemic reform?

Some economists argue that the Japanese economic system of the 1950s and 60s, based on long-term stable relationships, such as the main bank system, lifetime employment, seniority wages and administrative guidance, became obsolete by the 1970s. This system functioned well while the country was in the catching up process, but was no longer appropriate for a more mature

industrial society. According to them, Japan should have shifted toward a more market-based, less officially guided system during the 1970s.

But two large macroeconomic shocks of oil price hikes and floating major currencies intervened, and the Japanese government was forced to tackle these problems instead of concentrating on systemic transformation. Moreover, trade friction with the West intensified (next section), which further diverted national attention. As a result, the Japanese economy has retained many legacies of the catching-up process, such as over-regulation and the lack of incentives for innovation. This has become an institutional barrier for Japan's further development.

This is one popular view. However, there is an alternative view that cautions against admiring the US-type free economy uncritically. The advocates of this view assert that Japan's transition to a freer market economy, if it is to be done, must be implemented carefully and selectively, without throwing away desirable Japanese features including long-term perspective, teamwork, the *monozukuri* (making things) spirit, and the balanced sense of efficiency and equity.

6. Trade friction with the US

Japan's main external problem in the 1950s to mid-1960s was how to suppress an emerging trade deficit. Phrases like "balance of payments ceiling" and "stop-go policy" discussed in chapter 11 reflect this problem. However, around the mid-1960s, the problem changed 180 degrees—Japan now had to reduce the rising trade surplus as a national priority. The trade surplus was politically undesirable because it angered the US, especially the US Congress and industrial lobbies. In the 1980s, Japan began to record the largest trade surplus and the US had the largest trade deficit in the world, year after year. Furthermore, the size of Japan's surplus and that of the American deficit were similar. Japanese saving was used to finance American overspending, and that became the largest financial flow in the world economy.

The history of Japan's trade friction with the US (and, to a lesser extent, with Western Europe) is long and highly politicized. It began in the 1960s, when Japan was exporting cheap textile products (the "one-dollar

blouse”) to the US market. Japan was forced to adopt “voluntary” export quotas on its textiles. After that, one by one, a series of Japanese goods came under attack: steel, TVs, metalworking machines, automobiles, video players, semi-conductors, and so on. From the 1980s, in addition to the pressure to export less, the US also began to demand that Japan buy more American goods, including farm products like orange and beef, automobile parts, and construction and financial services. The US also argued that the Japanese economic system was inefficient and closed to imports and must be reformed. What started as complaints on individual products thus spread to the universal criticism of the economic system of America’s major trading partner.

The idea that the US trade deficit was caused by Japan’s trade surplus, and that its reduction required bilateral diplomatic negotiations, was behind the tough stance of the US trade negotiators. But was this view correct? Ronald McKinnon of Stanford University and the author refuted this view by presenting the hypothesis of the Syndrome of the Ever-Higher Yen (McKinnon and Ohno, 1997). It stated that neither exchange rate adjustments nor bilateral trade talks could “correct” the bilateral trade imbalance and, if implemented, they would only cause new problems. This view was in the minority in the US but had a broad support among Japanese businesses, officials and economists (see Komiya’s argument at the end of this chapter). More specifically, the hypothesis argued as follows.

- (1) Every five to seven years when the US trade deficit with Japan becomes politically intolerable, the US demands two things: (i) the yen must be appreciated; and (ii) Japan must buy more from and sell less to the US. This situation occurred in 1971-73, 1977-78, 1985-87, and 1993-95. As the US high officials (usually the Secretary of the Treasury, sometimes even the President) talk up the yen, the yen sharply appreciates and the trade tension rises between Japan and the US.
- (2) But this policy reaction only destabilizes the Japanese and Asian economies without solving the US trade deficit problem. The US deficit is a long-term, structural problem caused by the savings shortage of the American government and households. Currency adjustments or trade talks cannot remove this US-made problem. The fundamental solution must come from an American domestic policy to curb

consumption and encourage saving.

- (3) Japan should open up its economy and accept more imports from developing countries, not just from the US, and more FDI from abroad. This would give a strong impetus to Japan's microeconomic and structural reforms. However, it might have little impact on Japan's trade balance which is basically determined by the savings-investment relationship at the macro level². Japan and the US should conclude bilateral agreements to (i) solve trade disputes at the micro or sectoral level (or take them to the WTO); and (ii) stabilize the yen/dollar exchange rate at the level consistent with purchasing power parity.

Since the 1990s, the bilateral policy pattern between the US and Japan has evolved further. In the mid- to late 1990s, the US economy was soaring with an IT boom and an asset bubble, while the Japanese economy was stagnant. The usual US demand to open up Japan and appreciate the yen was in recess, even though the Japan-US trade gap remained very large. It was feared that a further destabilization of the already weak Japanese economy would damage the world as well as the US economy³. In particular, the collapse of Japanese financial institutions would have an adverse effect on the international financial system. Since 2004, however, the Japanese economy has shown a sign of recovery. With it, the reason for the US to give Japan a breathing space is also disappearing.

In the late 1990s, some Japanese officials and economists argued for a sharp depreciation of the yen to boost the lackluster economy, since fiscal and monetary stimuli have all failed. However, there is a partner to the exchange

² Denoting exports by X , imports by M , savings by S , and investment by I , the current account can be written $X - M = S - I$ using the national income identity. In words, the current account is equal to the gap between the nation's savings and investment. While the current account is the sum of the trade balance, the service account (including cross-border payments of wages and interest) and the transfer account (official grants and private remittances), the difference between the current account and the trade balance was small and stable for Japan. For this reason, the two terms are used interchangeably in this chapter.

³ In executing economic policies, the US government traditionally abhors an upward movement of long-term dollar interest rates and a decline of the Wall Street stock index, both of which are supposed to dampen investment and consumption and reduce economic growth. Lower economic growth bodes ill for the next election. When such a risk is suspected, the US often softened or postponed its demands on the Japanese side.

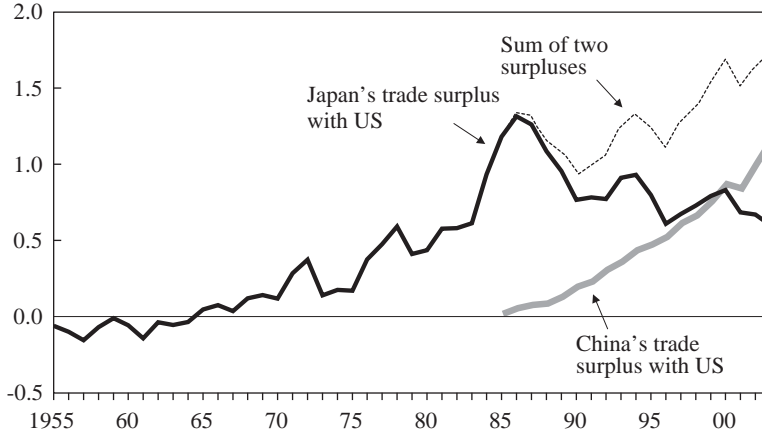
rate. If Japan and the US both desired a yen depreciation, that would be fine. But if the two countries disagreed on whether or how much the yen should fall, or if each wanted a depreciation of its currency against the other, the outcome would become highly uncertain. In reality, despite the hope of driving the yen down, the yen actually strengthened against the dollar in 2003 and 2004. In the mean time, the US government continued to send very ambiguous signals on the desired movement of the dollar. It repeated that the strong dollar policy would be maintained but the exchange rate should be determined by the market.

Another important fact is that China has overtaken Japan as the largest trade surplus country vis-à-vis the US around the year 2000 and, as a consequence, trade friction similar to what Japan experienced in the past has emerged between China and the US. As long as the American savings shortage remained unresolved, some other country would be obliged to provide a sufficiently large trade surplus (i.e. international lending) for the US, if Japan were not to do it. China has begun to have skirmishes with the US over human rights, intellectual property rights, and other commitments made at the time of WTO accession. Moreover, as predicted from the hypothesis of the Syndrome of the Ever-Higher Yen, the US now strongly demands an appreciation of the Chinese renminbi (RMB) to “correct its gross undervaluation” and diminish Chinese competitiveness. Since China is still a developing economy with tight capital control, the situation is not exactly the same as Japan. But it can be said that currency management under mounting US political pressure has now become one of the major policy questions for the Chinese monetary authorities.

In July 2005, China revalued the RMB by two percent and officially moved from the fixed exchange rate system to the basket currency system with unannounced basket contents. However, the actual mode of currency management did not change significantly. The RMB still remains virtually fixed to the dollar and its speed of crawl has been very slow at the time of this writing (late 2005). In light of China’s unbending inclination toward gradualism, this is quite expectable. How soon and by how much the RMB will start to fluctuate by market forces remains an open question.

Earlier, Japan was the target of global criticism because it was too strong. Since the 1990s, Japan has been weak and stopped drawing much atten-

Figure 12-3 US Bilateral Trade Balances with Japan and China
(% of US GDP)



Source: US Census Bureau.

tion from foreign governments. This change is described as “Japan bashing” turning to “Japan passing.” The Japanese like self-depreciation and are very sensitive to how others perceive them.

7. Fiscal expansion and consolidation—and expansion again

During the high growth period of the late 1950s to 60s, the central government budget was generally sound. It was in surplus and no government bonds were issued until 1965. But in the mid to late 1970s, fiscal expansion to stimulate the economy was re-activated, financed by the issuance of new government bonds. These bonds were initially of 10-year maturity but bonds with shorter maturities were also issued later. Public debt quickly accumulated.

In the 1980s, the Japanese Ministry of Finance started an initiative for fiscal consolidation. A tighter budget and bold expenditure cuts were targeted. Fiscal and administrative reforms were proposed and partly carried out. The Second Ad Hoc Commission on Administrative Reform (*Dai Ni Rincho*, 1981-83), an official advisory organ headed by former Keidanren President Toshio Doko, recommended expenditure cuts without tax increases for fiscal consoli-

ation. His recommendations also included greater international contributions through increased ODA and military spending, reduction of healthcare costs, and private-sector initiatives. Mr. Doko himself was a man of self-discipline and modest living. He ate only a small dried fish for breakfast, thus setting an example for the government to follow.

Subsequently, the Maekawa Report (1986-87) was prepared by the Advisory Group on Economic Structural Adjustment for International Harmony, a private group advising Prime Minister Nakasone headed by former Bank of Japan Governor Haruo Maekawa. It recommended expansionary fiscal and monetary policies to boost domestic demand, economic deregulation, and reduction of the trade surplus to avoid friction with the US. His low interest rate policy was later criticized as causing an asset bubble. In addition, Prof. Ryutaro Komiya severely criticized Mr. Maekawa's recommendation for a trade surplus reduction, arguing that the surplus was a macroeconomic phenomenon which should be left to market forces (see the box below).

Thanks to the efforts of the Ministry of Finance and the asset bubble in the late 1980s, the fiscal balance gradually improved. However, with the bubble burst in 1990-91, the Japanese economy plunged into a long recession. A series of fiscal stimuli were tried in increasingly large amounts in the 1990s and public debt began to accumulate again.

Prof. Komiya and the Japan-US trade friction

Prof. Ryutaro Komiya (1928-) is one of the most prominent economists in Japan. After graduating from Tokyo University, he conducted research at Harvard University, Stanford University and Aoyama Gakuin University, among others. He was a professor as well as the Dean of the Faculty of Economics at Tokyo University. He also served as the President of the MITI's Research Institute of Economy, Trade and Industry (RIETI).

Prof. Komiya's main research area is international economics. In addition to theoretical works, he has written many books which criticized the policies of the Bank of Japan and the Japanese and US governments. In his 1994 book, *Economics of Trade Surplus and Deficit*, he flatly dismissed the idea that Japan's trade surplus was generated by the closed nature of Japanese markets. He argued that the trade gap was fundamentally a macroeconomic phenomenon of the savings-investment balance. He asserted that, unless the US adopted internal policies to increase its own saving rate, no trade negotiation or exchange rate manipulation would "resolve" the trade gap issue. He also criticized the Maekawa Report as completely misguided. This view is quite close to the Hypothesis of the Syndrome of the Ever-Higher Yen of McKinnon and Ohno (1997) presented in the main text.

Here are some excerpts from his book:

Let me reflect on why I am writing this book. My current position is roughly as follows. For more than a decade since around 1983, Japan's huge current account surplus and America's huge deficit—or Japan's trade surplus with the US—have been a cause of economic "friction" between the two countries. Against this trade surplus of Japan, the US has aggressively demanded that we reduce the surplus and open up the Japanese market.

To me, first of all, these demands for reducing the surplus and opening the markets—or more precisely, the ideas behind these demands—seem extremely illogical and unreasonable. Japan's response to the US in the so-called Maekawa Report in 1986 was also highly inappropriate.

Second, from the viewpoint of economics, the debate over the bilateral current account imbalance is full of elementary mistakes. Stupidity and nonsense rule this debate. And I believe it is my mission as an economist to correct such mistakes and nonsense.

Third, I consider myself an internationalist and not a nationalist, and I am proud of it. But I cannot endure the situation where Japan is unduly criticized by the international community based on misunderstanding, prejudice and malice. I want to refute such criticisms and correct these misguided ideas. (pp.3-4)

Recently, there is a re-emergence of the idea that yen appreciation can reduce Japan's trade surplus. But this idea is fundamentally mistaken. The exchange rate can adjust only the cyclical part of the surplus, if that. In a floating exchange rate system, the (real) exchange rate is endogenous [determined by the interaction of many variables] and cannot be manipulated to an arbitrary level. (p.106)

In general, the impact of the real exchange rate (in other words, the terms of trade) on savings and investment is ambiguous... As a first approximation, I propose to presume that the terms of trade has no direct relationship with the trends of S [saving] and I [investment] in each economy... Existing theoretical and empirical studies on savings have not considered the effects of changes in relative prices or the terms of trade on the trend of savings, because such an inquiry is theoretically a very remote one. (pp.180-181)

Chapter 13

The Bubble Burst and Recession



The bankruptcy of Yamaichi Securities – President Nozawa announces the decision to voluntarily close the operation in a press conference, 1997.

1. The lost decade and the debate over reforms

Japan experienced an asset bubble in the late 1980s. As the bubble burst around 1990, the Japanese economy entered a long period of deflation and recession. Growth slowed down and sometimes became even negative. For the first time in the postwar period, prices declined persistently. Economic statistics remained gloomy and, more importantly, consumers and producers became extremely pessimistic. Some said that Japan was still a very high income country. Others said that sources of the next growth were being prepared under the disguise of recession and pointed to some companies that were doing very well. But overall, it can hardly be denied that Japan's economic performance in the 1990s and the early 2000s was less than expected.

The 1990s is sometimes called the Lost Decade for Japan. Naturally, the main topic for Japanese economists was why this recession continued and what should be done to end it. The key policy issue seemed to be whether or not bold reform measures should be taken at a time when the economy was stagnant. Some argue that painful reforms were necessary precisely when we faced a recession. Others argued that such reforms should not be carried out under bad economic conditions. But there may be other important issues than this.

The government of Prime Minister Junichiro Koizumi (2001-) is trying to push "reforms" forward. These include privatization of post offices, putting a stop to over-generous highway construction, pension reform, local government reform, and of course, bank reform. The worsening of the economic condition in 2001 due to the global IT recession and the terrorist impact increased opposition to the Koizumi initiative. In 2003 and 2004, economic indicators began to pick up and momentum for reforms was revived. In 2005, the bill for privatizing post offices was passed through the Diet after Mr. Koizumi ousted his opponents from his party in a high-handed political maneuver—and people seemed to support Mr. Koizumi strongly.

It is too early to judge whether these reform efforts really amount to a historical milestone. But it is possible to raise another question—are these reforms sufficient to revitalize the Japanese society? Mr. Koizumi's initiatives are concentrated in domestic administrative reforms to shrink the size of the government. That is certainly important, but what about the other goal of

improving competitiveness of the private sector in the age of globalization? The current government seems to lack leadership and vision in international economic policy. Such crucial issues as building a productive relationship with China, active engagement in WTO and FTAs, revitalization of the East Asian production network, and the way to cope with weak domestic industries under global competition, are not given proper direction. Their management is now left to the operational handling of individual bureaucrats in charge, instead of being guided consistently from the top. A slimmer and more efficient government is fine, but Japan's rejuvenation will not be possible if the dynamism of its industries and agriculture remain suppressed.

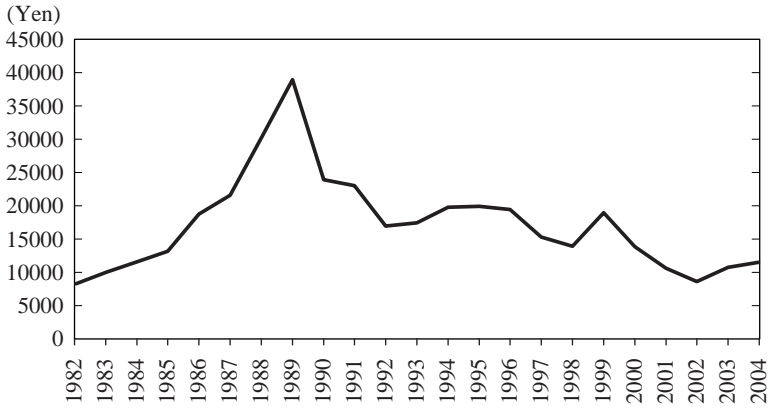
Another problem is the convoluted relationship between the Prime Minister and the ruling party. While Mr. Koizumi is pro-reform, his party, the Liberal Democratic Party (LDP), is mostly and traditionally anti-reform. This is expectable since the LDP's power has depended so much on distributing money to rural precincts. Using pre-war terminology, Mr. Koizumi is trying to implement *Minsei Party* policies as a leader of the *Seiyukai*-like party (see chapter 9). But because Mr. Koizumi is popular among people, old LDP politicians are obliged to "support" him to secure votes, although they disagree with his policies. Mr. Koizumi in turn stays with the LDP to take advantage of its organization and influence. Thus, it is not very clear what message the voters are sending to the government when they support the LDP: is it pro-reform or anti-reform?

2. The occurrence of the asset bubble

The Japanese stock price index began to rise in the early 1980s and continued to rise to more than five times the 1980 level. Then, from 1990 it started a long period of decline with medium-term fluctuations. The Japanese land prices also rose throughout the 1980s. The average land price more than doubled. The turning point for land prices came one year later than the stock market, in 1991. Since then, the land price index has continued to decline. Urban land prices rose more and fell harder in comparison with rural land prices.

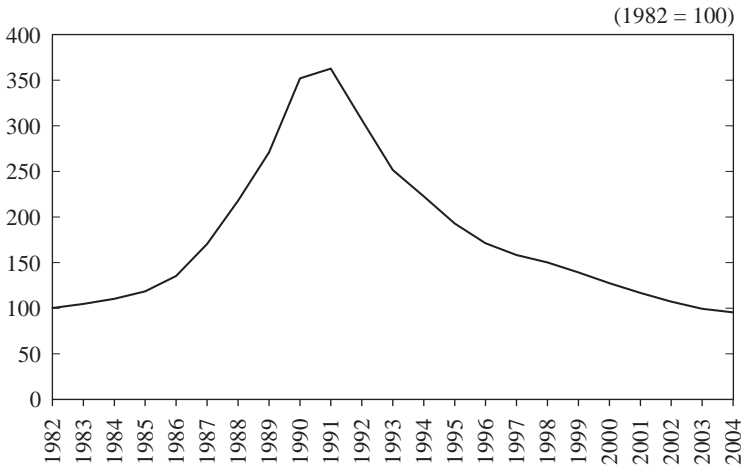
There are two alternative views regarding the cause of the asset bubble.

Figure 13-1 Nikkei 225 Stock Index Average



Source: Nihon Keizai Shimbunsha (Japan Economic Journal).

Figure 13-2 Urban Land Price Index



Source: Japan Real Estate Institute.

The first view argues that the bubble was *caused structurally through bank deregulation*. Previously, Japanese banks were tightly regulated by the Ministry of Finance. There was little incentive to innovate, but as long as the banks remained in this regime, they were assured of an adequate profit margin and protected against bankruptcy. But this system was removed in the early 1980s. As competition began, banks lost the “rents” and “franchise value” of

being a bank (i.e. extra profits given to a (protected) bank). At the same time, large corporate customers moved away from bank borrowing toward other financing, including retained profits, corporate bond issuance and access to international financial markets. As the Japanese banks lost large corporate customers, they rushed to find new—and more risky—borrowers and projects such as small and medium enterprises (SMEs) and land and property investment (especially urban office buildings and rural resort development). But the Japanese banks lacked the ability to correctly evaluate these new borrowers and projects. When the economy was booming in the late 1980s, they over-lent. Business strategy tends to be less careless when the economy booms and problems are concealed. When the bubble ended, these loans became a huge mountain of bad debt (Yoshitomi, 1998).

The second view, which is perhaps more popular, is basically a *monetary explanation of the bubble*. It simply says that easy money in the late 1980s caused the asset bubble. In 1985 there was a sharp yen appreciation, and the Bank of Japan lowered short-term interest rates and eased money in response. The Bank of Japan's policy reaction function (how it decides its policy) is such that traditionally, monetary policy becomes expansionary at the time of yen appreciation or domestic recession. The Bank of Japan's action in 1985 and beyond was in accordance with this rule. Many blame the Bank of Japan, especially Governor Satoshi Sumita, for easing too much and for too long. But since price inflation was close to zero at that time, the Bank of Japan could not find a good reason to tighten money and end the asset price increase everyone was enjoying. This was a signaling problem: when asset prices rise but goods prices remain stable, is liquidity excessive or not? The data shows that the growth of broad money (M2+CD) accelerated to more than 10 percent during 1987-89. This seemed a little too high for an economy growing at about 4 percent. From the end of 1999, the new Bank of Japan Governor Yasushi Mieno deliberately tightened money and raised interest rates. This quickly ended the bubble. Some criticized Mr. Mieno for his brutality, but could the bubble have gone on forever? It had to end some time, and perhaps the sooner the better.

These two explanations are not mutually exclusive. Bank deregulation explains why reckless projects began to be financed at first and monetary expansion explains why this bubble continued for so long. They are structural

and macroeconomic reasons, respectively, which together caused the rise and fall of the asset bubble.

During the late 1980s, which was the rising phase of the bubble, many queer phenomena were observed.

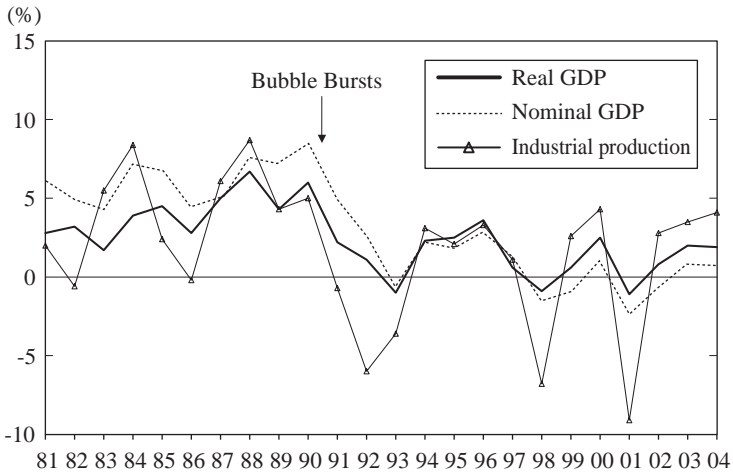
- Those who owned land became very rich and those who didn't had little chance of buying their home. This increased the sense of inequality and social injustice.
- Enriched people purchased luxury goods and consumed expensive dresses and food. They traveled all over the world to spend money—a parallel with the *narikin* during WW1.
- Since vacant land, which was easier to sell, was more valuable than built land, the *yakuza* (Japanese mafia) was mobilized to demolish buildings illegally and force owners to sell the land. Sometimes the *yakuza* drove a truck into a house to destroy it.
- Too many office towers were built in urban areas. They stood empty for many years to follow.
- A large number of amusement parks and resort hotels were developed. The only hugely successful amusement park in Japan remains Tokyo Disneyland. All others got into financial trouble and many of them are now closed. Some of them are operating under financial distress with a new management: for example, Huis ten Bosch (Dutch theme park in Nagasaki), Phoenix Seagaia Resort (seaside complex in Miyazaki), and Alpha Resort Tomamu (winter sports resort in Hokkaido).
- A large number of male construction workers from the Middle East, especially Iran, came to work in Japan. Some of them had work permits but others were illegal. Every weekend they gathered in Ueno Park in Tokyo to enjoy themselves and exchange information.

But after the bubble burst, these phenomena all disappeared.

3. The decade-long recession and deflation

GDP statistics and the industrial production index reveal that business conditions were not uniformly poor during the lost decade. The Japanese economy declined three times, in 1992-93 after the initial bust of the bubble, in 1997-

Figure 13-3 GDP and Industrial Production



Sources: Cabinet Office, and Ministry of Economy, Trade and Industry.

98 following the consumption tax hike and banking crisis, and in 2001 amid the US and global IT recession. However, economic performance in intervening periods was not so bad. There were times when the Japanese economy appeared to recover. But each time, the recovery was short-lived. The three troughs and intervening mini-recoveries are also clearly visible from other statistics such as machinery orders, housing starts, workers' income and unemployment. However, the severity and timing of fluctuation differed slightly from one indicator to another. Not surprisingly, small businesses consistently faced greater difficulties than large enterprises, for instance, in enterprise financing and output demand.

For example, in 1996 Japan's real growth registered 3.5 percent which was highest among the G7 countries. This period also coincided with the relatively weak yen, which was good for Japanese exporters. But in April 1997, the Hashimoto Cabinet, backed by the Ministry of Finance's desire to restore fiscal soundness, raised the general consumption tax from 3 to 5 percent. The economy weakened immediately (it is very strange that such a small tax increase had such a huge impact). Toward the end of 1997, a number of major financial bankruptcies occurred. Yamaichi Securities and Hokkaido Takushoku Bank went bankrupt, triggering a nationwide banking crisis and credit crunch.

In the following year, the Long-Term Credit Bank and the Securities and Credit Bank also fell. The hope for recovery was dashed.

The big question is: why did the Japanese economy remain so weak for so long after the bubble burst? Economists are still debating. The list below summarizes the most popular explanations.

- One explanation is purely cyclical. Since the bubble period created large overcapacity, it would take time to reduce capital stock and inventory to normal levels. But if so, stock adjustment took a little too long.
- Another explanation blames non-performing loans held by banks. Since banks failed to get rid of bad debt, and since the government did not have proper measures to encourage this, financial intermediation was impaired which in turn hurt the real economy. This vicious circle would continue until a bold measure to clean up the banks' balance sheets was taken. The government claimed that this was being done, but perhaps it was not enough.
- Another popular explanation is that Japan's economic system had become obsolete. Japan's relational systems, such as lifetime employment, seniority wages, keiretsu groups, subcontracting, and so on, might have worked well during the 1950s and 60s, but they have become ineffective in the age of globalization. Some argued that Japan was facing the third major transformation (the first was in Meiji, the second was post-WW2 reforms). But others caution that Japan should not adopt the American system uncritically, since some Japanese systems are still useful. Recall the debate on the origin of the Japanese system in chapter 9.
- Yet another explanation points to long-term changes in the Japanese society. Japan has a rapidly aging population and snowballing government debt. The Japanese people are uncertain about their future, especially concerning the rising tax burden, availability of jobs, and the sustainability of medical care and pension schemes. This pessimism slows down consumer spending and business investment.
- More recently, the emergence of China as the factory of the world and the "hollowing-out" of Japanese manufacturing (the exodus of factories and jobs to other countries) were cited as a great threat. However, China's high growth will not continue forever and China has many internal economic,

social and political problems.

It is probable that Japan's stagnation was the result of these problems in mutual interaction. But if one ultimate cause behind these problems is to be cited, that must be the lack of political leadership. Japan did not have a person at the top of the political system who could clearly identify these problems, explain the situation to the people in plain and persuasive language, and design and implement long-term solutions. Japan's problems were not particularly intractable compared with the problems that other countries face. The continuation of uncertainty and anxiety in Japanese society must be explained by the quality of leadership rather than the difficulty of problems. Japanese people just do not believe that the current government can manage these problems.

4. Financial crisis and monetary policy

In the early 1990s when the asset bubble collapsed, Japanese banks which previously lent actively to small and medium enterprises and property development projects got into trouble. The recession and corporate bankruptcies increased bad debt, and the decline of land and stock prices additionally hurt the balance sheets of banks. Japanese banks often required land as loan collateral and engaged in mutual stock holding, but the values of both assets plummeted. As non-performing loans accumulated, many Japanese banks faced difficulty in observing the BIS capital adequacy requirement, which said that a bank's capital must be at least 8 percent of its risk assets, properly weighted, if it wants to remain an international bank. If this ratio falls below 4 percent, the bank is not allowed to conduct even domestic business and must close.

By late 1997, the fear of bank defaults had spread. As Yamaichi Securities and Hokkaido Takushoku Bank went bankrupt, the fear turned into reality. Banks tried to improve their BIS ratios by reducing risky assets. This was done by lending less, especially to small and medium enterprises. But this led to a credit crunch in the real sector, causing more bankruptcies and further worsening the quality of bank assets. This vicious circle continued from late 1997 to early 1998. Japanese banks were considered untrustworthy, and the "Japan premium," which is an additional charge to Japanese banks when they borrow internationally, surged. People wondered which bank would fail next.

Worried savers shifted their deposits from seemingly risky banks to safer ones and postal savings.

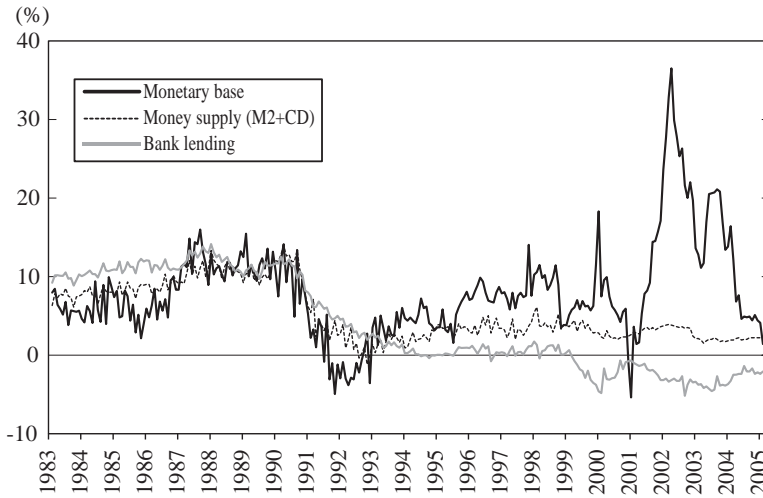
In response to the 1997-98 banking crisis, the government created the Financial Supervisory Agency in October 1998 and the Financial Restructuring Commission in December 1998. They were later merged into the Financial Services Agency in 2000. The government also prepared “public money” up to 60 trillion yen (12 percent of GDP) to deal with the bad debt problem, recapitalize banks and manage the closure and merger of weak banks.

The Bank of Japan responded to the 1997-98 banking crisis by providing ample liquidity. Subsequently, it adopted a “zero interest rate policy” in April 1999. This meant that the short-term interbank rate (the *call rate*), which the Bank of Japan could control, was lowered to zero except for a very small technical margin. The Bank of Japan tried to end this policy in August 2000, but when the economy further worsened it was forced to return to the zero interest rate policy. The official discount rate was also reduced to a very low level, from 6 percent in 1990 to 1.75 percent in 1993, and to 0.10 percent since 2001. The financial panic subsided in early 1998, but general recession persisted into the 2000s.

Since interest rates could not be reduced below zero (if that happened, people would hold only cash), the Bank of Japan seems to have reached the end of its policy rope. However, there was still strong pressure on the monetary authorities to do more to stimulate the economy. For example:

- *Increase the money supply* more drastically and by any means. To do so, buy untraditional assets in open market operations including bank and corporate bonds, foreign bonds, mortgage bonds (and even stocks?). Previously, the Bank of Japan bought and sold only government bonds for the reason of safety.
- *Inflation targeting*: according to the proponents of this idea, the Bank of Japan should announce a positive target rate for inflation for the next 2-3 years and be held responsible for achieving it. At the same time, the Bank of Japan should be insulated from the political pressure of the government. Inflation targeting is considered necessary to change people’s expectations about future inflation. Paul Krugman (Princeton University), Alan Meltzer (Carnegie-Mellon University), Takatoshi Ito (Tokyo University), and

Figure 13-4 Money Supply and Bank Lending



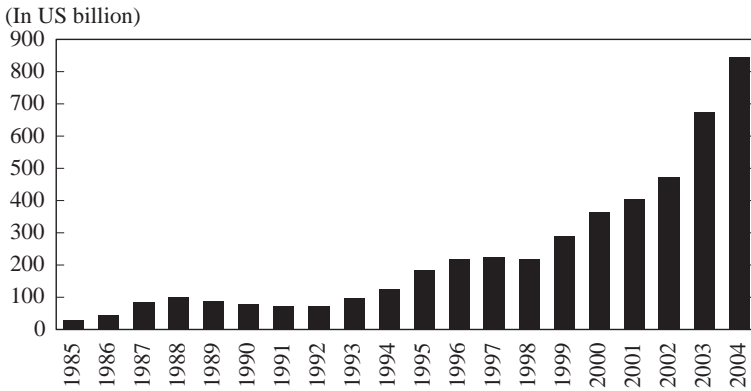
Source: Bank of Japan, *Financial and Economic Statistics Handbook*, various issues.

Motoshige Itoh (Tokyo University) supported this idea. But others, including Bank of Japan economists like Kunio Okina and Kazuo Ueda, were skeptical, saying that even if the Bank of Japan tried, there would be little impact on expectations because the monetary transmission mechanism was broken¹. Worse, if people's expectations suddenly changed, for whatever reason, after too much liquidity was injected, the resulting inflation would become uncontrollable.

- *Yen depreciation*: according to this view, aggressive monetary expansion, coupled with a political statement to welcome yen depreciation, will improve Japan's competitiveness and stimulate domestic and foreign demand. The government and the Bank of Japan sometimes seemed to endorse this strategy, and the yen actually depreciated moderately when such a policy intention was announced. But clearly, currency depreciation is a beggar-thy-neighbor policy and will hurt Japan's trading partners. If

¹ As Figure 13-4 shows, the relationship between the monetary base, which the Bank of Japan controls, and the money supply or bank lending, which are important for macroeconomic management, has been highly unstable since the 1990s. A massive injection of the monetary base by the Bank of Japan did not lead to an increase in the money supply and bank lending actually continued to decline. The argument that further injection of liquidity without removing the cause of this gap would lead to no result is convincing.

Figure 13-5 International Reserves



Source: Ministry of Finance.

the United States opposes the yen’s further weakening, this policy will have to end. Asian neighbors will also be annoyed. One variation of this idea is to ask China to appreciate the Renminbi, instead of depreciating the yen, to get the same relative effect. However, exchange rate adjustment is unable to solve the long-term structural problem of any country, be it Japan, China or the United States (chapter 12). It often diverts attention from the real cause of economic weaknesses.

In recent years, the Bank of Japan intervened very aggressively in the foreign exchange market to curb the appreciation of the yen. Thanks to this massive purchase of dollar assets, Japan’s international reserves increased dramatically from \$470 billion at the end of 2002 to \$674 billion at the end of 2003 and to \$845 billion at the end of 2004. This is the largest international reserves in the world, although China’s is catching up rapidly.

Meanwhile, American exchange rate policy under the Bush Administration remains ambiguous. The US has repeated the odd statement that “the strong dollar policy is unchanged, but exchange rates should be determined by the market.” The message is unclear and there seems to be no consistent currency policy behind it. Past observations suggest that the US usually feels comfortable when the dollar is moderately weak, especially in the election year. But when the dollar starts to fall greatly due to market pressure, will the US welcome it or resist it?

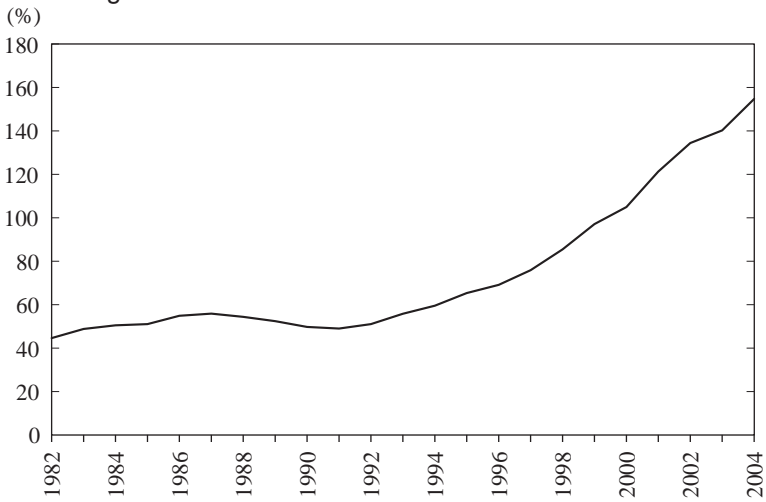
5. Fiscal policy

Fiscal policy has been expansionary since the 1990s, although some say that it has not been expansionary enough relative to what they think is adequate. At the end of fiscal year 2004 (i.e. March 2005), outstanding government debt stood at 782 trillion yen or 155 percent of GDP. This ratio is the highest among major industrial countries. It is highly uncertain whether this public debt explosion can be slow down in the future, let alone reversed. Moreover, this figure does not include short-term debt or *contingency liabilities*, namely, the amounts that the government will be obliged to pay in the future for rescuing the bankrupted social security system, recapitalizing insolvent banks, and so on. International rating companies have continuously downgraded the Japanese government bond in recent years.

The government is often torn between the need for fiscal consolidation and the need for fiscal stimuli. In recent years, Japan's fiscal policy leaned toward expansionism because of the worsening economic situation. There was a strong political pressure for more fiscal stimuli to avoid a "deflationary spiral" (price deflation and output recession in a vicious circle). Many contended that no reform was possible unless the economy improved first. But the effectiveness of fiscal policy under such circumstances is an open question.

The opponents of fiscal activism said that Japan had already tried fiscal stimuli many times during the last decade, but the economy had failed to recover strongly. They also argued that old-fashioned fiscal spending, such as building expensive but under-used highways, bridges, airports and Shinkansen tracks would only benefit rural construction companies while national debt snowballed (did Japan really need three giant bridges to span the Inland Sea?) Further fiscal stimuli, which would add to the already huge government debt, might actually weaken the economy through increased fiscal vulnerability and unsoundness. The LDP-based political system, where votes are secured by channeling fiscal spending toward rural supporters, should be ended, it is said. Whether Mr. Koizumi can break through this dilemma while staying within LDP, the den of anti-reform politicians, is yet to be seen. In 2003, Mr. Koizumi seems to have been successful in tightening the fiscal stance relative to previous years—but not in 2004.

Figure 13-6 Government Debt as Percent of GDP



Sources: Bank of Japan, and Cabinet Office.

Under these circumstances, traditional IMF conditionality would require Japan to boldly tighten its budget despite short-term pain. But Japan is the biggest lender in the world with the largest international reserves, and it does not need IMF loans to finance its balance of payments. Consequently, Japan does not have to listen to IMF advice. At the same time, the internal political mechanism does not generate any policy options to pay short-term costs to achieve long-term goals. Perhaps that is the crux of the problem that Japan faces at present.

The road ahead for Japanese enterprises

In the 1980s, the US economy was struggling against international competition and the Japanese economy was booming. Some Japanese businessmen boasted that there was nothing more to learn from the Americans. In the 1990s, Japan experienced a long recession and a banking crisis while the US economy grew robustly thanks to the IT boom. Some cried, “Japan is finished; our economy will lose out to China and hollow out.” Japan is not the only country to have swung from over-optimism to over-pessimism. But Japanese tendency to react too strongly to the comments of foreign observers makes Japan more likely to embrace the two extremes of arrogance and timidity in succession. However, the manufacturing power of Japan, which has been developing since the Meiji period, does not soar or plummet every several years. The true strength of the Japanese economy is far more stable than ever-changing commentaries.

According to Prof. Takahiro Fujimoto of Tokyo University, such over-reaction is caused by the bad habit of analyzing all industries together in a mindless fashion without recognizing the sharp differences among them. He abhors gross questions like “Which country is stronger, China or Japan?” All industries—be it banking, construction, telecom, electronics, or automobile—are fundamentally different from each other. Any argument that ignores this fact is useless.

To properly evaluate the competitiveness of each industry, Prof. Fujimoto advances the concept of *business architecture* (Fujimoto, 2004). The business architecture theory looks at how components are combined. More precisely, business architecture is a “basic design concept to achieve a satisfactory working of any man-made system, and it asks how the system is divided into components, how functions are allocated to each component, and how the interface of interdependence among components is constructed” (Fujimoto et al, 2001).

When there are complex relations among components, there are two alternative directions in designing a product. The first is *modular architecture*, in which the modality of interaction among components is standardized for easy connection. The second is *integral architecture*, in which the complexity of interaction is happily accepted, and improvements are achieved through numerous trials and errors. Generally speaking, modular architecture is suitable for obtaining quick results at low cost

while integral architecture is appropriate for the pursuit of ever-higher quality in the long run. For example, desktop computers are a typical modular product in which globally common components from various companies are freely combined. In contrast, automobiles must be manufactured with integral architecture if multiple objectives such as performance, comfort, fuel efficiency, safety, etc. are to be attained simultaneously. Modular architecture can be further divided into open type and closed type. This distinction depends on whether the interface is publicized broadly or closed within the manufacturer.

	Integral	Modular
Closed	Closed Integral Automobiles, motorcycles, small consumer electronics, video games, etc.	Closed Modular Mainframe computers, machine tools, Lego(children's toy), etc.
Open	/	Open Modular Computer system and hardware, internet products, bicycles, some financial products, etc.

Source: Fujimoto, 2004, p.132.

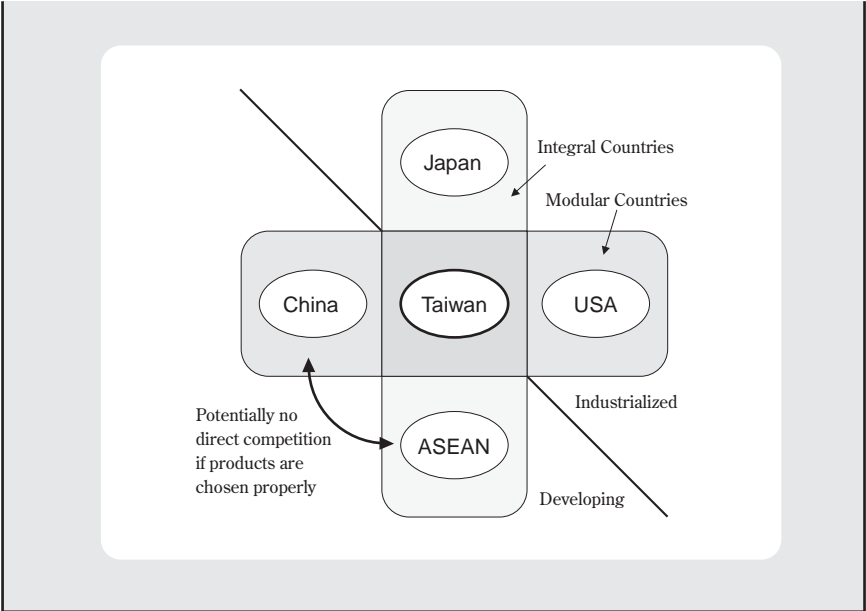
The correspondence between products and business architecture is not rigid but evolves dynamically with the business strategy of each firm or country, technical progress and demand shifts. In addition, business architecture often has structural layers in which, for example, modularization may proceed in final assembly while integration may deepen among producers who supply components.

Japan is a country of integral architecture, intensely interested in factory operation and obsessed with the perfection of the product. By contrast, the United States excels in modularization and is good at slicing the product into appropriate parts, standardizing them and making profits on the novelty of the combination. China is also a country of modular architecture, but its comparative advantage comes from labor-intensive modular products rather than from knowledge-intensive modular products as in the United States. Prof. Fujimoto argues that national differences in business architecture come from different institutional capabilities of enterprises in each country. Institutional capabilities in turn have been formed through historical experiences. For instance, in the early postwar period, Japanese firms were compelled to compete and grow without adequate supply of human, financial or physical resources. This led to the practice of long-term employment and the pyramidal suppli-

er system. Note that Prof. Fujimoto's assertion that the Japanese system was created in the postwar period is at odds with another, more popular view that it is a heritage of economic planning during the war period (chapter 9).

Prof. Fujimoto advises Japanese enterprises to stop following fads and to try to match the institutional capabilities they have with the architectural design of the products they produce. Sustained business growth requires making sufficient profits through selling integral products in which Japanese firms excel on the one hand, and strengthening the organizational capabilities that are currently lacking by learning from other firms and countries on the other. The reported emergence of modularized businesses should not lead Japanese firms to abandon the integral capabilities they have nurtured and imitate modularization of others. This would only lead to failure and loss of Japanese quality. If a firm rushes to invest in China simply because rival firms are already there, or because Chinese wages are lower than Japanese wages, the likely result would be low productivity in both Japan and China. What is required is an optimal strategic positioning with the full understanding of the architectural strengths and weaknesses of Japan and China.

Prof. Fujimoto has one concrete suggestion. Since the United States and China are both modular countries but with different levels of wages and technology, they are complementary partners in manufacturing modular goods. Meanwhile, Japan is an integral country with high wages and high technology looking for an international partner. If ASEAN, the traditional destination of Japanese FDI, learns to become such a partner, with a long-term vision and strong aspirations for high quality, Japan and ASEAN can form a strategic alliance in manufacturing integral products which will be differentiated from Chinese products. However, such an alliance remains a hypothetical possibility since no ASEAN countries has acquired necessary skills and attitude for Japanese-style manufacturing. This requires internalizing factory design and operations, ability to maintain, adjust and repair machines, producing parts design and molds, improving the level of local engineers, and so on. In other words, ASEAN must graduate from simple assembly for foreign orders to participation in the manufacturing process in a more fundamental sense. This is the key to upgrading the Japan-ASEAN economic relationship to a higher level. The Japanese government and business community should also actively provide technical assistance and business cooperation for this purpose.



FINAL EXAMS

Below are the questions I asked on the final exams in the Economic Development of Japan from 1999 to 2004. They are arranged chronologically. Model answers have been omitted because of limited space. Each exam consisted of five required questions and lasted 60 minutes with books closed. I invite interested readers to try. (The average points ranged from 65 to 82 out of 100, depending on the year.)

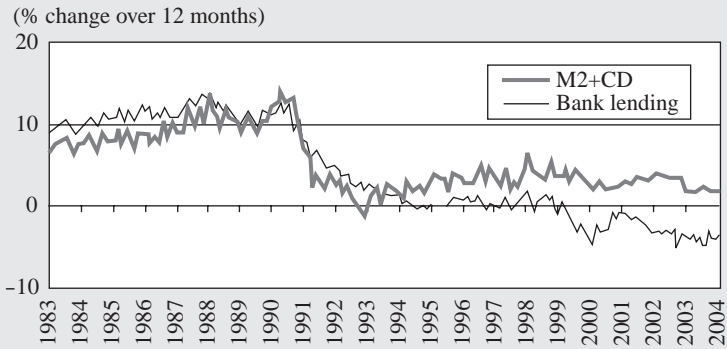
- Q1 Describe Dr. Tadao Umesao's view on history regarding why Japan became the first non-Western country to industrialize.
- Q2 List political, economic and social conditions existing in the Edo period (by the early 19th century) which later contributed to Japan's rapid industrialization.
- Q3 Discuss the development of agriculture in the Edo period (1603-1867) and how it later helped Japan to catch up with the West.
- Q4 Discuss the formation process of a *nationally unified market* during the Edo period.
- Q5 What was the most important economic goal of the Meiji government (1868-1912)? List policies adopted for that purpose. Approximately when was this goal (more or less) achieved?
- Q6 From 1881 to the mid 1880s, Finance Minister Masayoshi Matsukata implemented a policy initiative called "Matsukata Deflation." What were the contents of this policy, and what were its consequences?
- Q7 Discuss the development, private initiative and official support of Japan's modern textile industry during the Meiji period (1868-1912).
- Q8 What was the role of Eiichi Shibusawa (1840-1931) in Japan's industrialization?
- Q9 Explain the growth of the cotton industry during the Meiji period using the following two terms: "parallel development" and "import substitution."

- Q10 How did Meiji Japan (1868-1912) import Western technology? Did foreign direct investment (FDI) play an important role? How about foreign advisors?
- Q11 Describe the structure of Japan's international trade during the Meiji period (1868-1912).
- Q12 Explain the "Postwar Management" policy adopted after the Japan-China War (1894-95) and also after the Japan-Russia War (1904-05).
- Q13 How were savings mobilized for industrialization during the Meiji period? Did foreign savings (FDI, commercial loans, etc.) play an important role?
- Q14 How did World War I (1914-18) affect the Japanese economy? Discuss its major impacts on industrial growth and financial health.
- Q15 Explain the differences in domestic and foreign policy orientation between the Seiyukai Party and the Minsei Party during 1918-1936. [Before 1927, the Minsei Party was called the Kenseikai Party. For the purpose of answering this question, ignore the name change and use the term "Minsei Party" throughout.]
- Q16 Describe the background, immediate cause(s), and consequence(s) of the 1927 banking crisis.
- Q17 Compare the general economic condition of the 1920s and that of the 1990s. Are there any similarities in the causes of the economic weakness or in how the government responded to it?
- Q18 From the viewpoint of economic planning versus the free market, how did Japan's economic system change during the 1930s and 1940s? Explain its evolution using the following (and other) terms: "Planning Board," "priority production system," and "Dodge Line stabilization."
- Q19 During the war years of 1937-45, what kinds of changes were introduced in the Japanese economic system compared with earlier years? And what was the main *economic* reason for the collapse of Japan's war economy in 1945?

- Q20** In 1947, under the occupation by the Allied Powers, Japan started to implement a land reform. What was its effect on (i) reducing the number of absentee landlords; and (ii) improving agricultural productivity?
- Q21** Immediately after World War II, Japan suffered a triple-digit inflation. Discuss the alternative anti-inflation strategies proposed during 1946-47. Which strategy was finally adopted?
- Q22** What is the meaning of the “rationalization” policy adopted in the 1950s? Why was this policy needed?
- Q23** Describe how the coal industry contributed (or did not contribute) to Japan’s economic recovery and high growth during 1947-1960s.
- Q24** During the postwar high-growth era (late 1950s-60s), how was Japan’s macroeconomic policy conducted, and in what kind of international economic environment? Do today’s developing and transitional economies have a similar environment?
- Q25** Discuss Japan’s monetary policy during the 1950s-60s, with particular attention to the exchange rate regime, balance of payments and price stability.
- Q26** Explain Japan’s exchange rate regime during the high growth period (mid 1950s-1960s).
- Q27** Briefly discuss Japan’s import tariff policy during the entire industrialization period (1860s-1960s). Can we say that Japan achieved industrialization under free trade?
- Q28** Discuss Japan’s macroeconomic problems in the 1990s with particular attention to the banking sector and fiscal and monetary policies.
- Q29** Discuss the effectiveness and limitations of the Bank of Japan’s monetary policy during the last decade (from the early 1990s to the present).
- Q30** Read the electronic news below [next page]. Explain why money supply and bank lending are stagnant in Japan today. Also discuss the Bank of Japan (BOJ)’s policy addressing this problem.

Money Supply Growth in 2003 Slowest in Decade

Despite the continued policy of quantitative monetary expansion, money in circulation is not growing. According to a Bank of Japan report on Jan.13, money supply grew only 1.7% in 2003 compared to 3.3% in the previous year. This is the lowest monetary growth in ten years. Bank lending also recorded negative growth for the seventh year in a row. It is certain that future monetary policy must cope with the problem of stagnant money... The broad liquidity measure (covering “M2+CD,” postal savings, investment trusts, government bonds, etc.) also grew only 1.1% in 2003, the slowest since 1981 when comparable statistics became available. (Nikkei Net, 11:12 am, January 13, 2004; translated by K. Ohno)



QUESTIONS ASKED BY STUDENTS

Here are some questions raised by students in the classroom followed by my answers. Some questions were quite difficult and they compelled me to do some additional research before answering. I am not entirely confident that all my answers were appropriate. But I list them nonetheless since questions raised by foreign students often throw new light on old questions which are too familiar to the Japanese. The majority of questions are centered on the Edo and Meiji periods. This is partly because my students had many questions about these periods, and partly because I had little time to properly record and answer questions for later periods due to my uneven work schedule. I apologize for that.

1. What was the system of land ownership in the Edo period? Were farmers permitted to own land?

Under the political system of the Edo period, the Shogun gave land to daimyos to govern in exchange for their loyalty. Farmers were considered to be part of the land and were not allowed to move; and no land sale or rental was permitted. Under such a system, which was a kind of feudalism, the modern concept of land ownership is difficult to apply. However, Prof. Keiichi Tanaka says that the prohibition on transferring land was ineffective and farmers actually bought and sold land without any punishment. I am sure such practice did exist but how common it was remains an open question. Officially, all land directly or indirectly (through hans' rule) belonged to the Shogun. But within each han, the daimyo had the right to govern and tax his land. Moreover, each village had autonomy as long as it paid rice taxes. Under such circumstances, it is difficult to say precisely who owned the land.

2. Why could the bakufu suppress military uprisings by hans?

Tokugawa Ieyasu, the first shogun, was very clever. A number of institutions installed at the beginning of the Edo period made revolt against the central government virtually impossible. For example:

- A heavy financial burden was imposed on daimyos through obligatory biannual commuting to Edo, public works, and *ad hoc* taxation.
- Daimyo's wives and children were required to always reside in Edo as potential hostages.
- Strict restrictions were imposed on travel, shipbuilding, construction of castles and bridges, and so on.
- Powerful hans were placed away from Edo, and friendly hans were given militarily important locations.
- Han locations were often reshuffled and mutual inspection and restraints were

forced on daimyos.

- Any sign of disobedience from a daimyo led to the end of his family.

3. Why was only the Dutch language used for Western studies in the Edo period?

Because the Netherlands was the only Western country that the bakufu granted the right to trade with Japan (the other permitted trading partner was China). For this reason, all technical and medical books imported from the West were in Dutch. Studying the Dutch language was equivalent to learning Western technology.

Among the Western countries, the bakufu allowed only the Netherlands to trade with Japan because the Dutch were Protestant. Catholic countries such as Spain and Portugal sent aggressive religious missions to convert the Japanese to Christianity, which the bakufu disliked. Meanwhile, the Dutch were more interested in commerce than in religious activity. The Dutch themselves seem to have informed the bakufu that the Spaniards and the Portuguese were trying to invade Japan or exploit gold and silver mines in Japan.

4. Although the Edo society was a conservative class society, was there any mobility among the classes through marriage or any other means?

Officially and in principle, no class mobility was allowed. The distinction between the ruling class (samurai) and others was especially strict. But unofficially, there were exceptional cases of poor, lordless samurai becoming farmers or rich merchants with merits upgraded to samurai, and so on. However, there are no comprehensive statistics on the frequency of such cases at the national level. At the least, we can say that the Edo system did not have any explicit rules for inter-class transition, and that social stability depended significantly on formal class immobility.

Incidentally, the Edo society was based on a paternal lineage system in which the first son inherited the family name and assets. This first-son principle still survives in modern Japan, at least psychologically and especially in rural areas and in conservative families, although all sons and daughters now have equal legal rights.

Q5. Was dissatisfaction with unequal land distribution one of the main reasons for farmers' uprising?

This was not the main reason. From the mid 17th century onwards, the main reasons for farmers' revolts included protestation against (i) a heavy tax burden, (ii) corrupt officials; (iii) han's policy; and (iv) bakufu's policy. The typical actions during

uprisings included direct appeal to the government (which was illegal), collective abandonment of land and moving to another area, and attacks on the residences of targeted officials. Toward the end of the Edo period, as the number of poor and landless farmers increased, there were also many uprisings against rich merchants and farmers. Their houses were often attacked and destroyed.

6. Was Japan linguistically unified in the Edo period?

We can say yes by the standard of developing countries today. Although there were different dialects and local nuances in pronunciation, which made oral communication across different regions quite difficult, these were all variations of the same Japanese language. Moreover, written language was uniform across all regions. The important thing is that, through the use of one language, the Japanese national identity had already been firmly established. In fact, this was true much before the Edo period. To put it in another way, linguistic differences did not cause social division or ethnic conflict in Japan. However, there were some ethnic minorities who were not integrated into the Japanese society. For example, the Ainu (indigenous) people in Hokkaido and the Okinawa people spoke different languages and had separate cultures. There were also some people who lived in the mountains and did not mingle with the Japanese majority. These people were considered foreign, not Japanese.

7. What is Confucianism?

There were many ancient Chinese philosophers, but the most famous ones are Confucius (551-479 BC) and Lao-tse (6th century BC? His existence is not proven). Their ideas are called Confucianism and Taoism, respectively. Confucius taught virtue and discipline in social life, including how to perform rituals and ceremonies, respect parents and serve your lord, and how kings should rule. By contrast, Lao-tse emphasized natural experience and alignment with the universe; he discussed achieving things without effort, feeling the mystery of being, knowing the world without leaving the house, and so forth. These two saints had an enormous impact on East Asian societies such as China, Korea, Japan and Vietnam for the past 2,500 years.

Confucius hoped to become an advisor to a truly wise king, but he never found one. All his life, he traveled with his disciples and taught them through dialogue. This method is similar to that of Buddha, Socrates and Jesus. The disciples wrote down his words in *Lun-yu* (*Rongo* in Japanese) which became a best-selling textbook in the next two millennia. My favorite line from *Lun-yu* goes as follows: “You shall always remember the age of your parents. One, for celebrating. Two, for fearing.” Confucianism was introduced in Japan in the 4-5th century AD, but it remained

unpopular until the Edo bakufu reactivated it as an official doctrine. Its teachings were suitable for maintaining social order in a class society.

8. Tell us more about the outcast class in the Edo period.

There were two types of outcast people in the Edo period: *hinin* (meaning non-human) and *eta* (meaning unclean). These discriminatory words existed from long ago, but the bakufu institutionalized them at the bottom of the society by giving them organization and social roles.

The *hinin* were beggars who lived in designated districts in urban areas. They were organized and policed by managers who were internally elected or officially appointed. However, there were also unorganized *hinin* as well. There was some mobility between the *hinin* and non-*hinin* people. For example, the latter could become beggars through poverty.

The *eta* were people whose profession was to process dead animals such as horses and cattle, and supply raw materials for the leather industry. They were also forced to work in criminal execution. These were considered unclean jobs. However, many *eta* people were engaged in other professions including farming. The *eta* were also organized by managers at the han level.

Discrimination against these people continued even after the Edo period. To eliminate such discrimination, *Zenkoku Suiheisha* (the National Level Society) was created in 1922 and *Buraku Kaiho Domei* (the League for Liberating Discriminated People) was organized in 1955. Legally, of course, the present constitution guarantees equal rights to all. But the movement for eradicating social discrimination continues even today.

9. By the early Meiji period, why did Japan already feel that it no longer faced the risk of being colonized?

When Japan was forced by the West to open its ports (1853-54), the possibility of colonization was real. But by Meiji Restoration (1868), Japan no longer worried much about military invasion by Western powers. Instead, the national goal of catching up fast with the West emerged. What happened during these fifteen years? It is difficult to answer succinctly, but the following factors might have been at play:

- Despite social confusion, national unity and “ownership” (policy autonomy) were preserved, a devastating civil war was avoided (the internal war was short and small-scale), and the state machinery remained intact after the change of government.

- Japan was importing and absorbing Western technology very rapidly, and military and economic capabilities were being enhanced.
- Seeing this, Westerners were mainly interested in securing commercial interests rather than using military might to occupy Japan. At any rate, Japan was too far from their home to mobilize large-scale forces, and Americans were busy with their own Civil War.
- There was a rivalry among the Westerners in Japan, especially between the British and the French, which prevented the dominance of any single foreign group. This benefited the Japanese government by giving it a relatively free hand in designing policies.

10. How many foreign advisors were employed? Even though their salaries were high, can we say that their productivity was also high?

During the Meiji period, officially and privately employed foreigners numbered in the hundreds in any year. But their composition changed over time. In the first ten years of Meiji (1868-77), most foreign advisors were hired by the government and numbered between 300 and 600. Subsequently, the number of officially contracted foreigners declined sharply while the number of privately-hired ones increased. Nearly half of those hired privately were teachers and professors at academic institutions (many were English teachers at private universities). By nationality, the British dominated, followed by the French and the German. There were also a large number of Americans and most of them were professors and teachers. There were very few American engineers.

According to *Kobusho Enkaku Hokoku* (Report on the Outline of the Ministry of Industry compiled in 1931), in early Meiji (around 1872), the Yokosuka Shipyard employed 28 foreigners (all French), the Railroad Agency had 80 (mostly British), the National Mint had 20 (mostly British), and the Ikuno Mine had 15 (all French). These four state-run organizations alone accounted for 143 foreigners. But not all were top-level advisors with advanced technology. Many were factory operators, accountants, secretaries, and doctors.

It is reasonable to believe that these foreigners were worth the money. But it is difficult to statistically measure their labor productivity since their task was to create entirely new industries. Without the British help, Japan could not have laid its first railroad. Does this mean their productivity was infinite? Can we separately measure the contribution of any new industry to GDP growth when the economy is propelled by many other influences? The return on foreign advisors also depended on how quickly the Japanese could take over the new enterprise. Had the Japanese never

learned, these industries would have forever depended on foreign hands, which would be very, very costly. In reality, this did not happen.

11. In what respect was the Meiji Constitution ambiguous?

Here are some translated excerpts from the Constitution of the Empire of Japan (1889). Underlined parts were controversial or subject to different interpretations.

Article 1. The Empire of Japan shall be reigned over and governed by a line of Emperors unbroken for ages eternal.

Article 3. The Emperor is sacred and inviolable.

Article 4. The Emperor is the head of the Empire, combining in Himself the rights of sovereignty, and exercises them, according to the provisions of the present Constitution.

Article 5. The Emperor exercises the legislative power with the consent of the Imperial Diet [parliament].

Article 55. The respective Ministers of State shall give their advice to the Emperor, and be responsible for it.

Article 3 may look like a deification of the Emperor which is unique to Japan, but it is in fact a direct copy from a typical European constitution. This line was inserted at the advice of Karl Friedrich Hermann Roesler, a German legal advisor to the Meiji government. It means the ministers, and not the Emperor, bear the responsibility for the consequences of any policy.

The intention of the original drafters of the Meiji Constitution, especially Hirobumi Ito, was to place the Emperor within the state mechanism and under the constitution, as Article 4 makes it clear. But conservative members of the Privy Council, a body created to review the constitution draft, demanded that the underlined part in Article 4 be deleted, which Ito opposed. He argued successfully that the constitutional government would be quite meaningless if the Emperor were placed outside its framework. However, later in the 1930s, Ito's interpretation and its development, which was then called *Tenno Kikan Setsu* (The Organ Theory of the Emperor), were rejected by the military and the rightwing groups. As a result, the Emperor was elevated above the state and the constitution.

Article 5 says that the parliament must give "consent" to the Emperor's legislative decision. In the Japanese original, the term *shonin* (approve) was first proposed but it was replaced by a weaker term, *kyosan* (humbly support).

The problem with Article 55 was that it was unclear whether individual ministers or the cabinet as a whole were to advise the Emperor, especially on military matters. If a joint cabinet decision was required, the Minister of Army or the Minister of Navy must discuss the issue with other ministers, especially the Ministers of Finance and Foreign Affairs. This would certainly put a damper on any proposed military action for fiscal or diplomatic reasons. If not, he could advise the Emperor directly and independently.

This constitution also said little about the precise relationship between the legislative and administrative powers. This permitted the adoption of a party cabinet (a government formed by the political party having the most parliamentary seats) as well as *chozen naikaku* (a government of appointed generals and bureaucrats that included no elected officials).

12. In the world history, kings and emperors usually did not last very long. Political upheavals could easily end their rule, bringing in another dynasty or empire. Why has Japan's imperial family lasted so long?

According to the oldest official record of Japanese history (*Kojiki*, or Ancient Chronicle, 712), Japanese islands were created and inhabited by a group of gods who descended from heaven, and their progeny became the imperial family. In the Meiji period, the government determined that the transformation from god to human in the imperial family occurred on February 11, 660 BC, when Jimmu, the first human emperor, came to power. In 1940, the war government celebrated the 2,600th anniversary of this event. Apart from the legend, however, we do not know the exact date or circumstances of the rise of the imperial family, which may have occurred around 7th century AD.

During the war years between the 1930s and 1945, it was taught that the Japanese imperial family was an unbroken divine lineage from time immemorial. This bestowed superiority on the Japanese people who were ruled by such an auspicious family. But even counting from the 7th century, it must be admitted that the continuation of the same ruling family for more than thirteen centuries is very unique in history (some argue that the imperial family is not really of one lineage because of the family feud in the 14th century; but we are mainly interested in its political, not genetic, continuity). The emperor had real political power in the 8th century, but his power declined quickly in the subsequent centuries. Why has the Japanese monarchy never been abolished?

The first samurai leader who came to power as a military general was appointed by the imperial family in 1192. This approval procedure was a political convenience,

and it was followed by all subsequent samurai governments. For military leaders who were challenged by other competitors and needed to legitimize their assumption of power, the use of imperial authority was extremely useful. There was no need to topple the emperor who resided in Kyoto, composed poems and performed rituals, and who was militarily impotent. Once the tradition began in which a new political leader had to be formally appointed and legitimized by the emperor, it became firmly entrenched. The political cost of ousting the emperor was far greater than the cost of operating under his nominal authority. The Meiji government reactivated this political practice when it wanted to consolidate power.

Another important factor is that Japan was never invaded or occupied by foreigners (except by the Americans during 1945-52). This means that the imperial family was not wiped out by an external force. Although the Americans considered the possibility of trying and executing the emperor as a war criminal, they finally decided not to, being afraid of nationwide riots that these actions might trigger. We may say that the same political considerations were at play.

13. Why were Japanese trading houses (*sogo shosha*), such as Mitsui Bussan, so active from the Meiji period? No other developing countries seem to have such companies even today.

I don't know exactly why. One possible reason is the development of domestic commerce and the rise of a rich merchant class during the Edo period. But the continuity from Edo merchants to Meiji trading houses is not proven. The Mitsui and the Sumitomo were influential families during the Edo period, but the Mitsubishi, Suzuki, Nichimen and other business groups emerged during the Meiji period or later.

14. China also adopted an open-door policy in the 1860s but could not build modern industries due to the lack of funds. How did Meiji Japan mobilize investment capital?

There were super businessmen like Eiichi Shibusawa and Tomoatsu Godai who introduced the Western system of joint stock companies and encouraged their rich friends to invest in stocks. Shibusawa also used his First "National" Bank (which was private) to finance working capital. These prominent business leaders contributed to the creation of a large number of joint stock companies. In addition, expansion of demand for silk, tea and rice and an increase in the price of these commodities enriched rural Japan, which permitted self-financing of industries by large farmers, landlords and merchants. From the late 1880s, Japan experienced a series of "company booms" during which many joint stock companies in textile and railway operation were formed. It should be noted that this was a result of mobilization of

domestic savings. There was very little foreign participation in establishing these companies.

According to Prof. Juro Teranishi (chapter 6), savings mobilization within the private business sector, including self-financing, seemed to have played the largest role. Moreover, resource transfer from agriculture to industry through the fiscal system (i.e. the land tax) cannot be ignored. While Prof. Teranishi's dataset does not include years before 1900, savings mobilization through the land tax must have been significant in the early Meiji period.

15. Import substitution failed in many countries. Why did Meiji Japan succeed in the import substitution in the cotton textile industry?

Discipline imposed by a low uniform tariff of 5 percent may have been a factor. This made high protection impossible and forced manufacturers to improve competitiveness. In addition, high capacity to absorb new technology, the existence of innovative business leaders, the growing number of technical engineers, and appropriate official support were important. But simply listing these factors cannot explain why they emerged in Meiji Japan. A government that can effectively manage commercial rents and stimulate industries, as well as a very dynamic private sector, are not the features commonly seen in the developing countries today. For a possible explanation of these strengths of Meiji Japan, see the Umesao hypothesis in chapter 1.

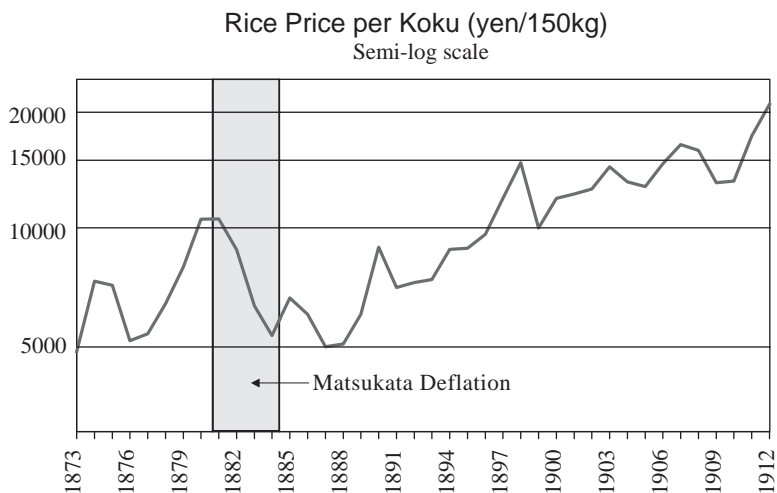
16. Is it correct to say that wars with China (1894-95) and with Russia (1904-05) promoted Japan's industrialization?

As explained in chapter 6, these two wars had the effect of increasing the economic size of the government. After each war, the government became very aggressive in industrial promotion and infrastructure building. Meanwhile, military spending was not held back even after the wars. Clearly, this demand expansion stimulated domestic businesses in the short run. Whether it also contributed to the long-term sound economic development of Japan is an open question. On the one hand, it is hard to deny that a big government was a plus for rapid industrialization. On the other hand, fiscal activism caused macroeconomic instabilities such as balance-of-payment pressure and the loss of gold reserves.

17. Please tell us about inflation in the Meiji period.

Japan's prewar overall price index is available only from 1901. But we can use the price of rice as a proxy to study the general trends in the earlier periods, as below.

Inflation and monetary confusion, which began in the period of opening ports not shown here, were terminated by Finance Minister Masayoshi Matsukata's deliberate deflation policy. While this was the longest (three years) and proportionately largest deflation in the Meiji period, we can also detect other smaller and shorter (usually one year) deflation episodes as well. Throughout Meiji, the general trend in the rice price was upward. From 1873 to 1912, the average annual increase was 4 percent.



Source: Management and Coordination Agency, *Historical Statistics of Japan*, Vol. 4, 1988.

18. Who were the members of the Privy Council which rejected the proposed imperial edict at the time of the banking crisis in 1927?

The Privy Council (*Sumitsuin* in Japanese) was originally established to deliberate on the draft of the Meiji Constitution in 1888. After the constitution was promulgated, it became a permanent advisory body to the emperor. The members were chosen from a group of *genkun* (old politicians who had merits in establishing the Meiji government) and “experienced” statesmen. The members were generally conservative and disliked the government run by political parties. They also supported a strong military stance against China and criticized the Shidehara diplomacy which tried to restrain military intervention in China.

On April 14, 1927, the government submitted the imperial edict, which permitted the Bank of Japan to rescue the Bank of Taiwan to contain the banking crisis, to the Privy Council for review. The Council's deliberation committee pointed out several “inconsistencies” in the draft edict and advised that it be rejected. The edict was subsequently voted down in the general session of the Privy Council.

One of the characteristics of Japan's prewar politics was the multiplicity and ambiguity of authority for making important decisions, which included the power to start and end a war. The constitution clearly stipulated that the sovereignty rested with the emperor, but he was not responsible for policy consequences; the responsibility was borne by his advisors, not himself. The government, either the entire cabinet or individual ministers (see question 11 above), were to advise the emperor on policy matters. The military often believed that it had the exclusive right to make military decisions and advise the emperor on military issues. The Privy Council also advised the emperor. In addition, as democracy grew, elected officials and political parties also claimed authority in making decisions. This decentralization of power in Japan was in sharp contrast to the case of Nazi Germany, where Hitler alone had supreme authority.

19. What happened to the Bank of Taiwan after its closure in April 1927? Was it liquidated?

No. The Bank of Taiwan survived. As discussed in chapter 8, the government passed the law to cover the loss up to 2 million yen incurred by the Bank of Japan. Taxpayers' money was injected into the Bank of Japan by as early as June 1928 in order to cancel the bad bills held by the Bank of Taiwan. This money, in the main, was used to repay the Bank of Taiwan's interbank "call" loans to other commercial banks. As a consequence, the entire financial market was greatly eased.

The Bank of Taiwan even expanded its business during the wartime, extending loans to China and Southeast Asia. After the war defeat, it was finally abolished by the order of the US occupation forces.

20. When the bubble economy was forming in the late 1980s, were Japanese people and policy makers aware of it?

I don't think they were clearly aware that this was a bubble. Although many people felt that something strange was going on, few analysts warned that the situation was only temporary and very dangerous. At that time, the bubble was called the "Heisei Boom." The Ministry of Finance tried to prop up the stock market whenever it started to fall. The Bank of Japan should perhaps bear the main responsibility for fueling the asset and land markets, but it was politically difficult to tighten the monetary policy and end the good times that everyone was enjoying. While asset prices were soaring, consumer prices remained stable.

21. Has Japan ever been a socialist economy?

Japan has never been a socialist economy in the ownership sense. That is to say, in any period, production was mainly undertaken by individuals, families or private firms. The government did not organize farmers and workers into collective units in any significant way. Even during the war economy of 1937-45, the government chose to control and direct private companies toward the war effort without nationalizing them.

But in the sense of economic management, the above-mentioned wartime was a period of rigid planning based on physical inputs and outputs. The period of recovery from the war (1945-49) was also characterized by official planning and directives, although the black market prospered simultaneously. In this sense, from 1937 to 1949, Japan was a planned economy although the ownership remained private. This clearly shows the separability of ownership and the allocative mechanism.

During the high-growth era of the 1950s-60s, the Japanese government was guiding the private sector in a milder form, which was neither the free market nor socialist planning.

References

- Abe, Takeshi, “*Men Kogyo*” (Cotton Industry), in S. Nishikawa and T. Abe, eds, *Nihon Keizaishi 4: Sangyoka no Jidai 1* (Japanese Economic History vol. 4: The Age of Industrialization 1), Iwanami Shoten, 1990.
- Arisawa, Hiromi, ed, *Nihon Sangyo Hyakunenshi* (One Hundred-Year History of Japanese Industries) 1 and 2, Nikkei Shinsho, Nihon Keizai Shimbunsha, 1967.
- Arisawa, Hiromi, *Sengo Keizai o Kataru: Showashi eno Shogen* (A Commentary on the Postwar Economy: A Testimony to the History of Showa), Tokyo University Press, 1989.
- Arisawa, Hiromi, ed, *Nihon Sangyoshi 1* (History of Japanese Industries vol.1), Nikkei Bunko, 1994.
- Arisawa, Hiromi, ed, *Showa Keizaishi 1* (Economic History of the Showa Period 1), Nikkei Bunko, 1994.
- Banno, Junji, *Nihon Seijishi: Meiji, Taisho, Senzen Showa* (History of Japanese Politics: Meiji, Taisho and Prewar Showa), University of the Air Press, Revised edition, 1997.
- Banno, Junji, “*Hamaguchi Osachi to Koizumi Junichiro*” (Osachi Hamaguchi and Junichiro Koizumi), *Ronza*, October 2001.
- Banno, Junji, *Showa-shi no Ketteiteki Shunkan* (Decisive Moments in the History of Showa), Chikuma Shinsho, 2004.
- Dore, Ronald P., *Education in Tokugawa Japan*, Center for Japanese Studies, University of Michigan, 1984.
- Fujimoto, Takahiro, *Nihon no Monozukuri Tetsugaku* (Japanese Philosophy of Manufacturing), Nihon Keizai Shimbunsha, 2004.
- Fujimoto, Takahiro, Akira Takeishi, and Yaichi Aoshima, eds, *Bijinesu Akitekucha: Seihin, Soshiki, Purosesu no Senryakuteki Sekkei* (Business Architecture: Strategic Design of Products, Organizations, and Processes), Yuhikaku, 2001.
- Fujimoto, Takahiro, and Junjiro Shintaku, eds, *Chugoku Seizogyo no Akitekucha Bunseki* (Architecture Analysis of Chinese Manufacturing Industries), Toyo Keizai Shimposha, 2005.
- Fukuzawa, Yukichi, *Bunmeiron no Gairyaku* (Outline of Civilization), Iwanami

- Shoten, 1962 (originally 1875).
- Hara, Akira, *Nihon Keizaishi* (Japanese Economic History), University of the Air Press, 1994, (revised in 1999).
- Hara, Yonosuke, *Ajia Dainamizumu: Shihonshugi no Nettowaku to Hatten no Chiikisei* (Asian Dynamism: Capitalist Networks and Regional Characteristics of Development), NTT Publishing, 1996.
- Hayami, Akira, and Matao Miyamoto, eds, *Nihon Keizaishi 1: Keizai Shakai no Seiritsu 17-18 Seiki*, (Japanese Economic History vol. 1: Establishment of Economic Society 17th-18th Centuries), Iwanami Shoten, 1988.
- Inoki, Masamichi, *Gunkoku Nihon no Kobo: Nisshin Senso kara Nitcho Senso e* (The Rise and Fall of the Japanese Militarist State: From the Sino-Japanese [Nisshin] War to the Sino-Japanese [Nitcho] War), Chuko Shinsho, 1995.
- Irokawa, Daikichi, *Meiji no Bunka* (The Culture of Meiji), Iwanami Shoten, 1970.
- Ishii, Kanji, Akira Hara, and Haruhito Takeda, eds, *Nihon Keizaishi 1 - Bakumatsu Ishin Ki* (Japanese Economic History 1: End of Bakufu and Meiji Restoration), University of Tokyo Press, 2000a.
- Ishii, Kanji, Akira Hara, and Haruhito Takeda, eds, *Nihon Keizaishi 2 - Sangyo Kakumei Ki* (Japanese Economic History 2: Industrial Revolution), University of Tokyo Press, 2000b.
- Ito, Motoshige, Kazuharu Kiyono, Masahiro Okuno, and Kotaro Suzumura, *Sangyo Seisaku no Keizai Bunseki* (Economic Analysis of Industrial Policy), University of Tokyo Press, 1988.
- Ito, Takatoshi, *The Japanese Economy*, MIT Press, 1992.
- Japan International Cooperation Agency (JICA), *Vietnam Kunibetsu Enjo Kenkyukai Hokokusho* (A Report of the Research Group on Economic Cooperation in Vietnam), March 1995.
- Johnson, Chalmers, *MITI and the Japanese Miracle: The Growth of Industrial Policy, 1925-1975*, Stanford University Press, 1982.
- Kamiyama, Tsuneo, "Zaisei Seisaku to Kinyu Kozo" (Fiscal Policy and Financial Structure), in K. Ishii, A. Hara, and H. Takeda, eds, *Nihon Keizaishi 2 - Sangyo Kakumei Ki* (Japanese Economic History 2: Industrial Revolution), University of Tokyo Press, 2000.

- Kaneda, Tatsuo, *Kirugisutan Keizai Saisei no Michi: Chiteki Shien no Kokoromi* (Path to the Recovery of the Kyrgyzstan Economy: An Attempt in Intellectual Assistance), JIIA Paper No.1, The Japan Institute of International Affairs, 1992.
- Kawakatsu, Heita, *Nihon Bunmei to Kindai Seiyō: Sakoku Saiko* (Japanese Civilization and Modern West: Rethinking the Closed Door Policy), NHK Books, 1991.
- Komiya, Ryutaro, *Boeki Kuroji Akaji no Keizaigaku: Nichibei Masatsu no Orokasa* (Economics of Trade Surplus and Deficit: The Folly of the Japan-US Friction), Toyo Keizai Shimposha, 1994.
- Komiya, Ryutaro, Masahiro Okuno, and Kotaro Suzumura, eds, *Industrial Policy of Japan*, Academic Press, 1988.
- Kosai, Yutaka, *En no Sengoshi* (The Postwar History of the Yen), NHK Ningendaigaku Textbook, 1995.
- Kosai, Yutaka, and Juro Teranishi, eds, *Sengo Nihon no Keizai Kaikaku: Shijo to Seifu* (Economic Reforms of Postwar Japan: Market and Government), University of Tokyo Press, 1993.
- Maegawa, Keiji, "The Continuity of Cultures and Civilization: An Introduction to the Concept of Translative Adaptation," in K. Ohno and I. Ohno, eds, *Japanese Views on Economic Development: Diverse Paths to the Market*, Routledge, 1998.
- Maegawa, Keiji, *Gurokarizeishon no Jinruigaku: Kokusai Bunka, Kaihatsu, Imin* (The Anthropology of Globalization: International Cultures, Development, Migration), Shinyosha, 2004.
- Maruyama, Masao, *Nihon no Shiso* (Thoughts of Japan), Iwanami Shinsho, 1961.
- Matsumoto, Takanori, and Miyako Okuda, "Senzenki Nihon ni okeru Zairai Sangyo no Zenkoku Tenkai: Eigyo-zei Deta ni yoru Suryo-teki Bunseki" (Nationwide Development of Indigenous Industries in Prewar Japan: Quantitative Analysis Using Sales Tax Data), in T. Nakamura, ed, *Nihon no Keizai Hatten to Zairai Sangyo* (Japanese Economic Development and Indigenous Industries), Yamakawa Shuppansha, 1997.
- McKinnon, Ronald I., and Kenichi Ohno, *Dollar and Yen: Resolving Economic Conflict between the United States and Japan*, MIT Press, 1997. Also

- available in Japanese translation (Nihon Keizai Shimbunsha, 1998).
- Minami, Ryoshin, *The Economic Development of Japan*, Macmillan, 1986.
- Miyamoto, Matao, *Nihon no Kindai 11: Kigyoka-tachi no Chosen* (Modern Age of Japan vol.11: Challenges of Entrepreneurs), Chuo Koron Shinsha, 1999.
- Miyamoto, Matao, and Masahito Uemura, “*Tokugawa Keizai no Junkan Kozo*” (Circulation Structure of Tokugawa Economy) in A. Hayami and M. Miyamoto, eds, *Nihon Keizaishi 1: Keizai Shakai no Seiritsu 17-18 Seiki*, (Japanese Economic History vol. 1: Establishment of Economic Society 17th-18th Centuries), Iwanami Shoten, 1988.
- Miyamoto, Matao et al, *Nihon Keieishi: Nihon-gata Kigyo Keiei no Hatten, Edo kara Heisei e* (History of Japanese Management: Development of the Japanese Management Model from Edo to Heisei), Yuhikaku, 1995.
- Miyazaki, Yasusada, *Nogyo Zensho* (Encyclopedia of Agriculture), 1697.
- Miyoshi, Yukio, ed, *Soseki Bunmei Ronshu* (Soseki’s Writings on Civilization), Iwanami Bunko, 1986.
- Murakami, Katsuhiko, “*Boeki no Kakudai to Shihon no Yushutsunyu*” (Trade Expansion and Capital Export and Import), in K. Ishii, A. Hara, and H. Takeda, eds, *Nihon Keizaishi 2 - Sangyo Kakumei Ki* (Japanese Economic History 2: Industrial Revolution), University of Tokyo Press, 2000.
- Murakami, Yasusuke, *Shin Chukan Taishu no Jidai* (The Age of New Middle Mass), Chuo Koronsha, 1984.
- Nakamura, Masanori, *Showa no Kyoko: Daifukyo to Shinobiyoru Fashizumu* (Showa Crisis: Depression and Encroaching Fascism), Shogakukan, 1982.
- Nakamura, Takafusa, *Showa Kyoko to Keizai Seisaku* (Showa Depression and Economic Policy), Kodansha Gakujutsu Bunko, 1994.
- Nakamura, Takafusa, “*Joron: Zairai Sangyo no Bunseki Shikaku*” (Introduction: An Analytical Framework of Indigenous Industries) in T. Nakamura, ed, *Nihon no Keizai Hatten to Zairai Sangyo* (Japanese Economic Development and Indigenous Industries), Yamakawa Shuppansha, 1997.
- Nakamura, Takafusa, and Konosuke Odaka, eds, *Nihon Keizaishi 6: Nijukozo* (Japanese Economic History vol. 6: The Dual Structure), Iwanami Shoten, 1989.

- Nakamura, Takafusa, ed, *Nihon Keizaishi 7: Keikakuka to Minshuka* (Japanese Economic History vol. 7: Planning and Democratization), Iwanami Shoten, 1989.
- Nakamura, Takafusa, ed, *Nihon no Keizai Hatten to Zairai Sangyo* (Japanese Economic Development and Indigenous Industries), Yamakawa Shuppansha, 1997.
- Nishikawa, Shunsaku, and Masatoshi Amano, “*Shohan no Sangyo to Keizai Seisaku*” (Industries and Economic Policies of Hans), in H. Shimbo and O. Saito, eds, *Nihon Keizaishi 2: Kindai Seicho no Taido* (Japanese Economic History 2: The Dawn of Modern Development), Iwanami Shoten, 1989.
- Nishikawa, Shunsaku, and Takeshi Abe, eds, *Nihon Keizaishi 4: Sangyoka no Jidai 1* (Japanese Economic History vol. 4: The Age of Industrialization 1), Iwanami Shoten, 1990.
- Nishikawa, Shunsaku, and Yuzo Yamamoto, eds, *Nihon Keizaishi 5: Sangyoka no Jidai 2* (Japanese Economic History vol. 5: The Age of Industrialization 2), Iwanami Shoten, 1990.
- Noguchi, Yukio, *1940-nen Taisei: Saraba Senji Keizai* (The 1940 Regime: Farewell to the Wartime Economy), Toyo Keizai Shimposha, 1995.
- Odaka, Konosuke, “*Sangyo no Ninaite*” (Workforce and Work Systems), in S. Nishikawa and T. Abe, eds, *Nihon Keizaishi 4: Sangyoka no Jidai 1* (Japanese Economic History vol. 4: The Age of Industrialization 1), Iwanami Shoten, 1990.
- Odaka, Konosuke, *Shokunin no Sekai, Kojo no Sekai, Shinban* (The World of Craftsmen and the World of Factories, new edition), NTT Publishing, 2000.
- Ohno, Kenichi, “*Nihon Keizai, Mikuro karano Saisei o*” (Renewal of Japan’s Economy Begins from Microeconomic Cleanup), *Nihon Keizai Shimbun*, December 31, 2002.
- Ohno, Kenichi, *East Asian Growth and Japanese Aid Strategy*, GRIPS, 2003.
- Ohno, Kenichi, “Designing a Comprehensive and Realistic Industrial Strategy,” *Vietnam Development Forum Discussion Paper*, No.1, June 2004.
- Ohno, Kenichi, and Nguyen Van Thuong, eds, *Improving Industrial Policy Formulation*, Vietnam Development Forum, The Publishing House of Politi-

- cal Theory, 2005.
- Oishi, Shinzaburo, *Edo Jidai* (The Edo Period), Chuko Shinsho no.476, 1977.
- Okazaki, Tetsuji, *Kogyoka no Kiseki: Keizai Taikoku Zenshi* (The Road to Industrialization: Prehistory of the Economic Giant), Yomiuri Shimbunsha, 1997.
- Okazaki, Tetsuji, *Edo no Sijo Keizai: Rekishiseido Bunseki kara Mita Kabunakama* (The Market Economy of Edo: Trade Cartels from the Viewpoint of Historical Institutional Analysis), Kodansha Sensho Metier 155, 1999.
- Okazaki, Tetsuji, and Masahiro Okuno, eds, *Gendai Nihon Keizai Shisutemu no Genryu* (The Source of the Modern Japanese Economic System), Nihon Keizai Shimbunsha, 1993.
- Okimoto, Daniel I., *Between MITI and the Market*, Stanford University Press, 1989.
- Ranis, Gustav, "The Financing of Japanese Economic Development," in K. Ohkawa et al, eds, *Agriculture and Economic Growth: Japan's Experience*, University of Tokyo Press, 1969.
- Rosovsky, Henry, *Capital Formation in Japan: 1868-1940*, Free Press of Glencoe, 1961.
- Saito, Osamu, *Purotokogyoka no Jidai: Seiyo to Nihon no Hikakushi* (The Age of Proto-Industrialization: Western Europe and Japan in Historical Comparison), Nihon Hyoronsha, 1985.
- Saito, Osamu, and Masayuki Tanimoto, "Zairai Sangyo no Saihensei" (Restructuring of the Indigenous Industries), in M. Umemura and Y. Yamamoto, eds, *Nihon Keizaishi 3: Kaiko to Ishin* (Japanese Economic History vol.3: Opening of Ports and Meiji Restoration), Iwanami Shoten, 1989.
- Sawai, Minoru, "Kikai Kogyo" (Machinery Industry), in S. Nishikawa and T. Abe, eds, *Nihon Keizaishi 4: Sangyoka no Jidai 1* (Japanese Economic History vol. 4: The Age of Industrialization 1), Iwanami Shoten, 1990.
- Shibusawa, Eiichi, *The Autobiography of Shibusawa Eiichi: From Peasant to Entrepreneur*, translated by Teruko Craig, University of Tokyo Press, 1994.
- Shimbo, Hiroshi, and Osamu Saito, eds, *Nihon Keizaishi 2: Kindai Seicho no Taido* (Japanese Economic History vol. 2: The Dawn of Modern Devel-

- opment), Iwanami Shoten, 1989.
- Sonobe, Tetsushi, and Keijiro Otsuka, *Sangyo Hatten no Rutsu to Senryaku: Nicchutai no Keiken ni Manabu* (Roots and Strategies of Industrial Development: Lessons from the East Asian Experience), Chisen Shokan, 2004.
- Special Survey Committee of the Ministry of Foreign Affairs, *Postwar Reconstruction of the Japanese Economy*, compiled by Saburo Okita, University of Tokyo Press, 1992 (the original report in Japanese, *Nihon Keizai Saiken no Kihon Mondai* (Basic Problems in Rebuilding the Japanese Economy), published in September 1946).
- Sugihara, Kaoru, *Ajiakan Boeki no Keisei to Kozo* (Formation and Structure of Intra-Asia Trade), Minerva Shobo, 1996.
- Takahashi, Kamekichi, and Sunao Morigaki, *Showa Kinyu Kyoko Shi* (History of Showa Financial Crisis), Seimeikai Shinsho, 1968, revised and reprinted in Kodansha Gakujutsu Bunko, 1993.
- Tanaka, Keiichi, *Hyakusho no Edo Jidai* (The Edo Period Led by Farmers), Chikuma Shinsho, 2000.
- Teranishi, Juro, “*Kinyu no Kindaika to Sangyoka*” (Modernization of Finance and Industrialization), in S. Nishikawa and Y. Yamamoto, eds, *Nihon Keizaishi 5: Sangyoka no Jidai 2* (Japanese Economic History vol. 5: The Age of Industrialization 2), Iwanami Shoten, 1990.
- Tominaga, Kenichi, *Nihon no Kindaika to Shakai Hendo: Chubingen Kogi* (The Modernization of Japan and Social Change: A Lecture at Tuebingen), Kodansha Gakujutsu Bunko, 1990.
- Toriumi, Yasushi, *Nihon no Kindai: Kokumin Kokka no Keisei Hatten to Zasset-su* (Modern Japan: The Formation, Development and Collapse of the Nation State), University of the Air Press, 1996.
- Umemura, Mataji, and Yuzo Yamamoto, eds, *Nihon Keizaishi 3: Kaiko to Ishin* (Japanese Economic History vol. 3: Opening of Ports and Meiji Restoration), Iwanami Shoten, 1989.
- Umesao, Tadao, *Nihon towa Nanika: Kindai Nihon Bunmei no Keisei to Hatten* (What is Japan?: Formation and Development of Modern Japanese Civilization), NHK Books, 1986.
- Umesao, Tadao, *An Ecological View of History: Japanese Civilization in the*

- World Context*, Trans Pacific Press, 2003.
- United Nations Conference on Trade and Development (UNCTAD), *Least Development Countries Report 2004*.
- Yamamoto, Yoshihiko, ed, *Kiyosawa Kiyoshi Hyoronshu* (Collected Essays of Kiyosawa Kiyoshi), Iwanami Shoten, 2002.
- Yoshikawa, Hiroshi, *Kodo Seicho: Nihon o Kaeta 6000 Nichi* (The High-Growth Period: 6000 Days That Changed Japan), Yomiuri Shimbunsha, 1997.
- Yoshino, Sakuzo, “*Kensei no Hongi o Toite sono Yushu no Bi o Nasu no Michi o Ronzu*” (Discourse on the Principle of Constitutional Government and the Way to Fully Develop its Potentiality), *Chuo Koron*, January 1916, in Yoshitake Oka, ed, *Yoshino Sakuzo Hyoronshu* (Collected Essays of Yoshino Sakuzo), Iwanami Bunko, 1975.
- Yoshitomi, Masaru, *Nihon Keizai no Shinjitsu: Tsusetsu o Koete* (The Truth of the Japanese Economy: Beyond Popular Views), Toyo Keizai Shimposha, 1998.

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