

THE ROLE OF MEIJI FINANCIAL POLICY
IN THE RAPID INDUSTRIALIZATION
OF JAPAN , 1869 - 1911

by

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A.B., Brown University (1972)
Sc.M., Brown University (1975)

SUBMITTED IN PARTIAL FULFILLMENT

OF THE REQUIREMENTS FOR THE

DEGREE OF MASTER OF

SCIENCE

at the

MASSACHUSETTS INSTITUTE OF

TECHNOLOGY

June, 1975

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Submitted to the Alfred P. Sloan School of Management on June 16, 1975
in partial fulfillment of the requirements for the degree of
Master of Science.

The rapid industrialization of Japan following 1869 has often been termed the "Japanese miracle" because in the space of only four decades Japan rose from humble status to equality with the great western powers. Other underdeveloped nations, both then and now, have been confronted with the problem of quickly "catching up" to the wealthy countries, but none seem to have achieved the spectacular success of the Japanese. This work examines the role of Meiji government financial policies in the achievement of that success. The subjects addressed include: reform of the currency; creation of the instruments of monetary policy; taxation and other revenue policies; fostering the growth of the stock of private capital; government participation in manufacturing; policies on foreign trade and foreign exchange. Analysis and criticism of various policies is presented. Some guidelines for drawing implications about other developing nations are discussed.

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INTRODUCTION

The rapid modernization of Japan during the Meiji era has been the subject of much discussion and admiration. Faced with commercial and military threats from superior nations, the Japanese in less than five decades advanced close to parity with their opponents. The Chinese, despite immensely better natural resources than the Japanese, were not successful in meeting the western challenge. Other developing nations today face some of the situations the Japanese did during the Meiji period, and might perhaps draw useful information from the Japanese experience.

This work examines the contribution of Meiji financial policy, both fiscal and monetary, to the overall economic victory. Many other factors played a part as well, but the role of government financial policy was large, and financial policy is one thing every developing nation can directly control. For each aspect of policy discussed the historical facts are presented, together with analysis and criticism. Appropriate reference is made when the analysis is from previous studies, while the author's own opinions are supported with statistical information where such is available. The period studied is from 1869, when the military action to consolidate Meiji rule ended, to 1911, when Japan regained full tariff autonomy and membership in the family of great nations.

A summary of the contents of each chapter appears at its beginning, and the implications of the material discussed for the overall economic development appears at the end of each chapter.

The method of procedure is as follows. The history of Japan is reviewed, with a view to establishing certain pertinent economic and social conditions at the start of the Meiji period. The Meiji worked with certain advantages that had developed naturally in the social system. Monetary policy is then examined as a whole, since creation and maintenance of a modern money structure was a prior necessity to any fiscal policy. Fiscal policy was the government's major contribution to the direction expansion would take, and allowed balanced growth of important sectors. Foreign trade policy is examined with a view to understanding how the Japanese managed to obtain so much foreign capital for expansion without the foreign control such capital brought to China. Finally a few guidelines for drawing conclusions about contemporary situations from the Japanese experience are discussed; the Meiji period was, after all, a hundred years ago and the world economy has changed.

A BRIEF HISTORY OF JAPAN TO 1869

The family or clan structure has always been important in Japanese society. A clan-centered national government began with the Taika reform in 645 A.D. Subsequently Japan underwent a slow transformation into a feudal society, similar in cause and form to Europe after Rome. The deterioration of centralized authority led to regional conflict and the ascendancy of the warrior class (Samurai) to power in their own right. After 1185 the warring states were under the greater or lesser control of a supreme feudal lord called the Shogun. From 1683-1867 the Tokugawa clan controlled the shogunate. Thinking that an unchanging socio-economic system would provide lasting internal peace, the Tokugawa enforced a rigid caste-type division of society and an absolute ban on foreign contact. This ban was forcibly ended by western nations in the 1850's. Decline of the shogunate followed rapidly. In 1867 the shogun abdicated, and the emperor Meiji assumed actual control of the government. Rapid industrialization (and westernization) took place under the Meiji.

With the exception of the Ainu who populate the northern island of Hokkaido (and who were regarded as the aboriginal barbarians by the rest of the population through most of Japanese history) the Japanese are a Tungus people, akin to those who inhabit Manchuria and Korea. Their language is polysyllabic, and only resembles Chinese in written form (which they borrowed from China).

Little other than myth is known of the history of ancient Japanese society. The island is mentioned in several Chinese works, but there are no detailed records. The earliest written histories

appeared in the eighth century A.D.: the Kojiki (Record of Ancient Matters) in 712, and the Nihongi (Chronicles of Japan) in 720. The society seems to have been ordered in a clan system, similar to many other primitive societies. Asiatic, and especially Chinese, influence was strong. Chinese writing was introduced via Korea in the fifth century, and Buddhism came over from China in the next century.

Unlike the Chinese, who have always taken great pride in self-sufficiency and regarded their land as the hub of the universe, the Japanese have always been quick to recognize their own deficiencies and have showed themselves adept at borrowing from other cultures to quickly bridge gaps in their own development. This trend has continued right up to the present time, and in some circles has branded the Japanese as unoriginal. Original or not, the material and political progress of Japan during these "borrowings" has been much greater than her "original" neighbors. This kind of adaptability contributed much to progress during the Meiji era.

The first central government structure was borrowed from China during the Taika reform of 645-650. At the time promising young men of the various clans were sent to China to study. In 645 a group of these students helped engineer a coup d'etat which clearly elevated the Yamoto clan above its chief rival, the Soga, and made Yamoto the most important single clan in Japan. The Yamoto ruler styled himself emperor, and the clan set about a deliberate attempt to create a

miniature replica of the contemporary T'ang dynasty in China. A Chinese-style bureaucracy was set up, complete with imperial examinations. There was no democracy; only aristocrats were eligible to take the tests. The Yamoto group never actually ruled over more than a small part of Japan; other clans remained powerful. But the Yamoto were generally recognized as the legitimate symbol of Japanese nationalism. This was the position of the emperor up to the Meiji era: a monarch who does not actually rule on a day-to-day basis, but whom none dare rise above. Real power was always exerted indirectly, by controlling the emperor, not overthrowing him.

A major aspect of the Taika reform was the concept that the emperor owned all the land, the clans surrendering it to him. This surrender was more formal than real. Various ranks of imperial officials were allowed estates of varying sizes. In China the government was always busy keeping tax-paying peasants from falling into the hands of wealthy bureaucrats, whose influence protected them from the tax. In Japan there was no powerful civil service, only the aristocrats, who, as provincial officials, joined with court nobles in building up huge private estates from the "national" land. The Yamoto could not adequately check this tendency without endangering the support which ensured their primacy.

Over the years Japanese society underwent a transformation very similar to Europe after the decline of Rome. Private estates grew

and the power of the central government, never great, declined. The farther the central power declined the more the economy became localized, and inter-clan wars increased. By the eleventh century a warring-states Japan had developed, complete with a warrior class and a feudal structure similar to European feudalism. The emperor survived as the powerless symbol of nationalism. There were various struggles of one court faction against another, using the warriors as pawns.

In one such struggle, the Heiji Rebellion of 1159, the warriors apparently became aware of their own power. Two warrior families, the Taira and the Minamoto, having first gained prominence as defenders of rival court factions, decided to fight it out for power in their own right. Taira triumphed, but proceeded to rule in the manner of the nobility, and fell prey to all the influences undermining the other noble groups. In 1185 the Taira were crushed in a sea battle, and the leader of the Minamoto (Yoritomo) was appointed shogun (sei-i-tai-shogun, "subduing barbarian great general", a title given previously to commanders sent by the imperial government against the Ainu). From then until 1867 shogun signified a warrior-leader who had been "given" power to rule the country by the emperor. Like the great mediaeval kings in Europe, the shogun's power was only as great as his control of his vassal states. For seven centuries the ruling group was made up of warriors, with all the ascetic traditions and

of the Samurai. When the Meiji period came, there were thus a large number of Samurai among those educated enough to fill positions in the new government. These warriors were perhaps quicker to recognize the inferiorities of their country before the westerners than were the Chinese bureaucrats. The primary western pressure was military, and the Samurai saw that it could only be met by constructing an economy capable of producing western-style armaments. The Chinese did not fully perceive the gravity of their inferiority until the western tide was too large to stop.

In 1543 three Portuguese sailors were shipwrecked in Japan. They brought the first firearms seen in Japan. Shortly thereafter Christian missionaries began to come to Japan. They made surprisingly large conversions in a short time, many of whom were ordered to "convert" by their warlords. Conversion was a convenient means of making contact with the west, the source of weapons. Even while it was spreading Christianity was being persecuted. The combination of internal economic difficulties and the strife of these persecutions resulted in the Shimabara rebellion of 1637-1638. After order was restored the shogun decided to protect the new stability by closing Japan to all foreigners. The proscription was effectively enforced, the only westerners being a few Dutch confined to Nagasaki. Also no Japanese were allowed to leave the country.

During this same period of 1550-1650 Japan was unified politi-

cally and militarily by Nobunaga, then Hideyoshi, and finally Tokugawa. Tokugawa Ieyasu believed that if he set up a system designed to be unchanging it would last forever. The estates were redistributed in ways that prevented alliances. Hostages were kept at court, and the feudal lords had to take turns attending court. Society was legally stratified: the Samurai, the farmers, the artisans and the merchants - descending in that order. It became impossible for anyone to move outside his class. Merchants, at the bottom, were despised. Nevertheless, as unification produced a national economy, money and banking in rudimentary form developed. The proscription of foreigners was just one more step in the process of freezing society.

After about 1700 peasant riots began to be annoyingly frequent. They arose from misadministration of the Tokugawa government, high taxes, crop failures, etc. These eventually toppled the Tokugawa regime.

This was the situation when Japan was once again opened to the west. Industrialization in Europe and the United States called for new markets, as did the nineteenth-century vogue for colonialism. Steamships required coaling stations around the world. Tales of cruel treatment of shipwrecked westerners by the Japanese increased the feeling that something should be done about the situation.

In 1853 a fleet of American ships under Matthew Perry sailed

into Japanese waters with the express purpose of opening the country to westerners. Perry carried a letter from the President demanding coaling stations and the right to take on provisions. Frightened of the obviously superior western military power, the Japanese signed such a treaty early in 1854. The door was open, and other nations rapidly came too. In just a few years Japan was the victim of "unequal" treaties such as had been forced on China, including extra-territorial rights for the westerners. Anti-foreign riots occurred. The Tokugawa government was damned as un-Japanese if it suppressed them, and damned by the powerful foreigners if it did not. Already faltering under internal economic pressures, the Tokugawa regime slowly collapsed.

When the emperor Mutsuhito succeeded to the throne in 1867 Keiki, the fifteenth and last Tokugawa shogun, resigned. For the first time since the twelfth century the emperor, whose reign-name was Meiji, assumed actual power. In 1869 a civil war with the remaining Tokugawa supporters was ended, and the feudal lands were surrendered. In 1871 the legal basis of both the clans and the caste structure were abolished. In 1871 state-controlled education was inaugurated, and the next year universal conscription began. The modernization of Japan proceeded with bewildering speed, both politically and technologically. This change was spurred by the desire to be equal to the west militarily and to end the unequal

treaties. The adaptable Japanese built up western-style industry in only a few decades, fought successful wars with China and Russia which brought in huge indemnity payments, and by 1911 had regained complete tariff autonomy, the last step in throwing off the western yoke. China, who had been victimized by the foreigners far earlier than Japan, was still their victim. The financial policies of the Meiji government played a substantial part in this success story, by fostering a balanced growth of agriculture, private capital, and the government sector, and doing so without excessive resource to foreign capital participation, which had been the undoing of China.

ECONOMIC AND SOCIAL CONDITIONS AT THE START OF THE
MEIJI PERIOD

Tokugawa Japan was not a primitive society. The agricultural economy supported 35 million people many of whom were literate. Numerically the population was static. The rigid social structure was being undermined by changing economic conditions, especially the rise of the merchant group and the anomalous position of the lower samurai. These two groups had something to gain from the change in government, and were the basis for economic expansion. The practice of sankin-kotai developed transport, communication, and sophisticated commercial obligations. A satisfactory source for capital formation could be found in the agricultural sector, already adjusted to heavy feudal dues. Changes in farming techniques during the late Tokugawa era preconditioned many people to working for wages and the procedures of commerce.

When Perry came to Japan in 1853 the country must have seemed very primitive to him. There were no western-scale industries. The army was antiquated, and the navy non-existent. The Japanese knowledge of the world beyond their borders was slight. But nevertheless Japan was not a primitive society; it was merely non-industrial in western terms. Various social and economic forces were already at work that facilitated the Meiji transformation.

The agricultural economy supported some 35 million people on less fertile land than Britain (1) which had only 7 million people at

(1) Maddison, Angus - Economic Growth in Japan and the USSR, p. 3
New York, Norton, 1969

the start of its industrial revolution. A substantial labor force was available if they could be freed from farming. It is estimated that 40-50% of boys, 15% of girls received some formal education (2). As dissatisfaction with the Tokugawa regime grew some men, at the literal risk of their lives, managed to learn the language of the Dutch at Nagasaki, and through them some facts about the west. Literacy was very important to the Meiji growth. Once people have gained some degree of literacy they are usually more receptive to further teaching.

Numerically the population was static (3). The higher classes practiced abortion, and the peasants infanticide (mabiki, literally "thinning"). Among the peasants this was usually a response to heavy feudal taxation (one less child for the family tax, one less mouth to consume the peasant's share of the crop after the crop tax). In the later Tokugawa era peasant reaction took more organized form: riots and even mass armed rebellion.

At the top of the social structure was the shogun, an office dominated by the Tokugawa family. Their domain covered about a quarter of the country. Their source of revenue was the rice tribute paid by their feudal retainers, who in turn exacted it from the peasants who lived in their domain. This rice tribute amounted to

(2) Dore, C. - "The Legacy of Tokugawa Education", in Marius B. Jansen ed., Changing Japanese Attitudes, Princeton, 1964, p. 105

(3) Maddison, op cit, p. 6

about 8 million koku out of total production of 28 million (4). This was of considerable importance for Meiji financial policy: the economy was already adjusted to devoting a large percentage of GNP to the government sector. The uses of these funds had to be re-directed.

Under the shogun were the daimyo, the feudal lords who ruled the various han (clan-states). There were 176 fudai daimyo, the "favored lords" who had always supported Tokugawa. High government positions were filled from their ranks alone. There were also 86 tozama daimyo, the "outside lords" who supported Tokugawa only after defeat in battle. They had no share in the Bakufu (shogunal government) and in turn were allowed a measure of autonomy within their han. The tozama included some of the wealthiest and most militarily powerful lords, including Shimazu of Satsuma. Satsuma, in southern Kyushu, was further protected by its great distance from centers of Bakufu power. Its men even dared violate the ban on foreign relations by trading with China. Through this and other doors knowledge of things western leaked in even before Perry.

The Bakufu discouraged intercourse between the han. Marriage alliances required approval. Passports were required for travel between han. Bakufu espionage was extensive. Perhaps the greatest

(4) Tsuchiya Takao, "An Economic History of Japan" in Transactions of the Asiatic Society of Japan, 2nd series, v. 15, p. 223

economic impact came from the institution of sankin-kotai: all daimyo were required to reside for a number of months each year at the shogun's court in Edo, and to leave members of their family as hostages when they returned to their han. This had two effects. The first was to develop transportation, communication, and more sophisticated commercial (especially monetary) arrangements to adequately care for the daimyo during the substantial geographic movements required by the sankin-kotai. The second effect was to increase the importance of, and daimyo dependence on, the officially-despised merchant class. They were needed to manage estates during the daimyo's absence, and to facilitate the vast movement of his entourage during the sankin-kotai.

The next group on the social ladder were the warriors or samurai. Below them were farmers, then artisans, then merchants, and finally outcasts called eta. During the dark ages of Japan (the Ashikaga shogunate) the warriors did battle for their lords. But under the lengthy peace of Tokugawa there was little fighting to do, and their position became anomalous and parasitic. They were supported by a grain stipend from their daimyo, who exacted the grain tax from his peasants. Many lower samurai were little better off than the peasants. The poverty and idleness of this large, educated group, raised in a tradition of devotion to the state, discipline, and full use of one's talents had important implications. The

samurai were among those who had time to learn Dutch. They had little reason to support the Tokugawa regime other than their feudal oath; they derived few benefits from it. Their traditions of sacrifice and denial of individual interest gave them an ingrained aptitude for corporate effort. Their military outlook and lack of interest in the status-quo helped them see that certain western ways had to be imitated if the threat was to be met. In contrast the Chinese bureaucracy was made up of literati who had risen through the imperial examinations, which centered on the Confucian classics. A change of Chinese structure and policy would have jeopardized their position, and besides their background and hub-of-the-universe attitude prevented their perceiving the full extent of the foreign threat until it was too late. The Chinese attitude is typified by the response of the emperor Ch'ien-lung-ti to the embassy of Lord Macartney in 1793:

"The stores of goods at the Celestial Court are plenteous and abundant, so there is really no need for the produce of outer barbarians in order to balance supply and demand." (5)

The most dramatic social change was the fusion of certain samurai and merchant families. This was connected with the introduction of a money economy in the agricultural sector, where barter had

(5) Norman, E.H. - Japan's Emergence as a Modern State, p. 30
Institute of Pacific Relations, 1940

been the rule before. The expenditures of the daimyo were principally for luxury consumption items (after maintenance of their samurai and estates) and the variety and quantity of such items steadily increased, under the Tokugawa peace. In the course of keeping up to the standards of other great lords a daimyo's need for funds increased, and thus so did his exactions from his peasants. The combination of sankin-kotai and the variety of (not-locally-produced) luxuries fostered a more sophisticated national economy in place of the isolation of the feudal manor. This eventually brought a money economy into rural areas; the daimyo could not carry tons of rice with him to Edo. Not only did the lord begin to demand some of his dues in money, the peasant often had to pay money for supplies, especially after fertilizers were introduced. In years of bad harvests he had no choice but to turn to the moneylenders, who often acquired land in this way. Thus land was held in fewer hands, tenancy increased, and the merchants were brought into closer relations with samurai who inhabited the estates. As their own expenses rose and their peasants became indebted, many daimyo themselves became indebted to the merchant class (chonin). As their importance in society rose, many chonin were adopted into noble families, and many poor samurai were glad to marry into wealthy merchant families. So by the time of the Meiji a strong, experienced merchant group, often fused with the devoted nationalism and fierce energy of the samurai,

was available, even if heavy industry and western financial institutions were not.

As shown, the agricultural sector was already adjusted to large contributions for support of the governing structure. Other results important for the Meiji followed the commercialization of agriculture in the late Tokugawa period.

The pace of commercialization was accentuated by changing farm technology. The variety of crops increased, and fertilizers began to be used, causing productivity to increase. When he produced more than subsistence level the peasant could sell for money to buy fertilizer and personal goods. This caused a change in the organization of agriculture, which formerly had been done in cooperative family groups. The technological advances required more intensive farming, and money profits weighed against cooperative groups. The individual with a small holding had a decided advantage over the cooperative group (6). As productivity increased farmers were able to market a good percentage of their crops. The table shows the extent of commercialization at the start of the Meiji period.

The commercialization of agriculture did several things. It accustomed people to working for wages and profits, making them more responsive to profit incentives. This in turn allowed satisfac-

(6) Allen, G.C. - A Short Economic History of Modern Japan, p. 16
New York, Preager, 1962

tory expansion of agriculture under the Meiji; until the successful establishment of heavy industry agriculture was the main revenue base of the Meiji government. Incentives which depend on market forces work better when a large proportion of the crop is for market.

PROPORTION OF CROPS MARKETED IN EARLY 1870's

	%
Rice	15-20
Coarse grains, beans, potatoes	5-10
Industrial crops	80-90
Vegetables	20-30
Fruit	20-30
Total (all crops)	25-31

Figures exclude tax payments in kind

Source: Lockwood, W.W. ed. - The State and Economic Enterprises in Japan p. 39
Princeton Univ. Press, 1965

Although the farmers acquired wealth in an economic sense, most of them did not acquire a substantially better standard of living until the Meiji era. Under Tokugawa whatever money they earned was rapidly drained off to increased feudal dues or inflation in the cost of farm supplies. Inflation was caused, among other things, by debasing of the currency by the Tokugawa regime. Despair

over the continually rising taxes led to increasingly frequent peasant riots near the end of the Tokugawa period, so frequent they eroded the "mandate to rule" of the Tokugawa family. When 1867 came, dissatisfaction with the status-quo was so widespread that the Meiji were able to effect a basically political revolution, with very little actual fighting. They were thus spared the necessity of rebuilding a country ravaged by civil war.

In summary, the Meiji started their reforms with a number of advantages that were already developed in the socio-economic system. A good portion of the population were literate and could be taught western methods. The agricultural economy was already adjusted to heavy taxation, so the new government could support its programs without drastic upheaval in the economy. The samurai were better able to see, and communicate to others, the need for developing western institutions and industries than were the literati of China. The samurai had an ingrained aptitude for self-denial and corporate effort. An extensive, influential class of experienced merchants had developed, often fused with samurai energy and national pride. The commercialization of agriculture accustomed the peasants to working for money and made them responsive to profit incentives. And finally the new government did not have to rebuild the country after a civil war.

This was the situation when the Meiji began their reforms.

Of course the big handicaps they had were lack of extensive natural resources, lack of heavy industry, lack of knowledge of western techniques, and lack of time: reform and industrialization had to be carried out before western encroachments had grown to an irreversible point. Suitable financial policy of the government helped overcome these handicaps.

MONETARY POLICY

The reformed agricultural tax became the basis of Meiji finances. At the time of the restoration the currency was debased. The Meiji reformed it, but only slowly. Since agricultural tax revenues were insufficient to meet their needs the government resorted to printing inconvertible notes, which had the effect of delaying stabilization of the currency. Three separate attempts were made to establish a central bank and the instruments of monetary policy. The first failed because of inadequate attention to the foreign price fluctuations of gold and silver. The second failed because its regulation gave an incentive to continually increase the supply of money; the government could not adequately control the money supply. The third attempt succeeded, and included with it ancillary financial intermediaries which encouraged a high rate of saving among the lower classes, which in turn contributed to the capitalization of industry. During the Meiji period Japan fought wars with China and Russia, which were expensive. The disbursement of huge sums in a short time produced a sharp rise in national income. The indemnity payments from the defeated opponents further increased the capital supply for industrial expansion.

Under Tokugawa the land tax had been collected in kind, and usually amounted to 40-50% of the crop. The Meiji adapted this feudal system to their own needs, substituting a percentage tax on the assessed value of the land. A uniform rate was charged throughout the whole country. By this means the government income from the tax rose from ¥20 million in 1872 to a level of ¥68 million in the

year 1875 (1). The tax was collected in money, and did not fluctuate with crop performance. This increased revenue was still not enough to meet the government's needs in their plan for rapid industrialization.

At the beginning of the Meiji era the currency was in a state of confusion. The Tokugawa had minted debased coinage at different times, and this was still in circulation. The Meiji determined to reform the currency, but their revenues were insufficient for their needs, so for a period they too issued debased coins and inconvertible paper currency. There was substantial pressure from foreign governments to reform; worthless paper was accumulating in the hands of their merchants. The Meiji finally agreed, and promised to compensate the foreign merchants. But since (in 1870) the new mint was not completed the government exchanged some coin for paper money at a very unfair rate. It was not until the middle of the 1880's that the Japanese currency was really stabilized, after the creation of efficient central banking.

This constant resort to the printing press, while regarded as backward by the west, really bought time for Japan. The people hurt most by it were foreign merchants because, as pointed out in the last chapter, a money economy was just beginning to reach the rural

(1) Tobata Seiichi - The Modernization of Japan, v.1 p. 94
Institute of Asian Economic Affairs, Tokyo, 1966

areas. But this kind of expedient got out of hand when the first National Bank was allowed to issue inconvertible paper.

In 1872 the National Banks were set up, modelled on the United States' system at the time (which also later proved inadequate). The banks were required to maintain a 100% reserve, and to keep 60% of their capital in inconvertible government notes and 40% in specie. It was thought that this would give credibility to the government notes and allow the Meiji to keep issuing them to meet their needs. The banks were allowed to issue their own notes, which would circulate as currency. The conversion price to gold and silver coin was fixed.(2)

The table of Currency in Circulation shows that the National Bank notes did not fulfill their expected function during the period 1870-1876. They rapidly ceased to be issued. This first attempt at national banking failed because no consideration was given to price fluctuation of precious metals abroad. As the table of Relative Prices shows the price of gold in silver declined over these years, but the Meiji silver-gold conversion was fixed. This allowed a great deal of arbitrage and a drain of gold from Japan.

A trader could buy a National Bank note with silver yen. Because the silver-gold conversion rate was fixed he could then exchange the note for gold, export the gold, and sell it for more

(2) Stillson, R. -"The Effect of Western-type Financial Institutions on Meiji Financial Devel.", in Journal of Oriental Studies v.8

CURRENCY IN CIRCULATION, 1869-1898

(year end, million yen)

Year	Government paper coin		Bank of J. notes	National Bk. nts.	Tokugawa notes coin		Total
1869	50.1				24.6	146.3	221.0
1870	55.5			8.6	31.6	134.4	230.1
1871	60.3	12.4		8.6	38.6	109.9	229.8
1872	68.4	30.8		4.3	24.9	70.6	199.0
1873	88.3	48.1		1.4	19.2	37.5	194.5
1874	101.8	42.7		2.0	4.7	28.7	184.9
1875	100.6	42.7		1.4	1.1	27.1	172.9
1876	105.1	46.5		1.7	0.7	23.3	177.3
1877	105.8	45.4		13.4	0.1	19.4	184.1
1878	139.4	40.7		26.3	0.1	16.2	222.7
1879	130.3	42.5		34.0		14.3	221.1
1880	124.9	39.8		34.4		8.9	208.0
1881	118.9	36.8		34.4		5.0	195.1
1882	109.4	35.7		34.4			179.5
1883	98.0	34.0		34.3			166.3
1884	93.4	31.6		31.0			156.0
1885	88.3	28.4	4.0	30.2			150.9
1886	67.8	27.8	40.0	29.5			165.1
1887	55.8	17.9	53.5	28.6			155.8
1888	46.7	33.6	65.8	27.7			173.8

Year	Government paper coin		Bank of J. notes	National Bk. nts.	Tokugawa notes coin	Total
1889	41.2	41.9	79.1	26.7		188.9
1890	33.3	43.4	102.9	25.8		205.4
1891	27.9	42.4	115.7	24.9		210.9
1892	20.8	46.2	125.8	23.9		216.7
1893	16.4	50.7	148.7	22.8		238.6
1894	13.4	62.7	149.8	21.8		247.7
1895	11.1	69.7	180.3	20.8		281.9
1896	9.4	76.2	198.3	16.5		300.4
1897	7.5	91.7	226.2	5.0		330.4
1898	5.4	81.0	197.4	1.9		285.7

Source: Patrick, Hugh T. "External Equilibrium and Internal Convertibility: Financial Policy in Japan", in Journal of Economic History, v. 25, 1965

RELATIVE PRICES OF INCONVERTIBLE PAPER,
SILVER AND GOLD, 1868-1897

Year	Paper Money Price in Silver of Silver	Silver Price of Gold (world price)
1868	0.748	15.59
1869	0.962	15.60
1870	1.033	15.57
1871	0.978	15.57
1872	1.018	15.63
1873	1.036	15.92
1874	1.038	16.17
1875	1.029	16.59
1876	0.989	17.88
1877	1.033	17.22
1878	1.099	17.94
1879	1.212	19.40
1880	1.477	18.05
1881	1.696	18.16
1882	1.571	18.19
1883	1.264	18.64
1884	1.089	18.57
1885	1.055	19.41
1886	1.000	20.78
1887	1.000	21.13
1888	1.000	21.99
1889	1.000	22.10
1890	1.000	19.76
1891	1.000	20.92
1892	1.000	23.72
1893	1.000	26.47
1894	1.000	32.56
1895	1.000	31.61
1896	1.000	30.65
1897	1.000	34.34

Source: Patrick, op cit

PRICES AND REAL NATIONAL INCOME

Year	Ohkawa Wholesale Price Index	Yamada Cost of Living Index	National Income Deflator	Real Nat. Income
1878	105	97	90	446
1879	121	97	104	587
1880	145	112	122	655
1881	160	122	133	611
1882	146	115	124	575
1883	114	102	104	553
1884	95	95	95	518
1885	100	100	100	621
1886	92	94	93	733
1887	94	94	94	703
1888	95	93	94	718
1889	103	99	100	691
1890	135	109	117	801
1891	111	106	107	783
1892	114	108	110	818
1893	106	110	109	858
1894	112	114	113	1029
1895	120	124	123	997

Year	Ohkawa Wholesale Price Index	Yamada Cost of Living Index	National Income Deflator	Real Nat. Income
1896	130	134	133	937
1897	144	156	152	980
1898	145	167	160	1298
1899	152	156	155	1133
1900	163	176	172	1177
1901	155	172	167	1264
1902	157	180	173	1107
1903	167	190	183	1236
1904	176	195	189	1242
1905	198	200	196	1123
1906	194	208	203	1326
1907	209	224	219	1418
1908	202	216	212	1477
1909	192	212	206	1472
1910	195	214	208	1413
1911	202	229	221	1621

Source: Patrick, op cit

silver than he had started with. The value of the National Bank capital would thus decline in world prices. The result was that the bank ceased to issue notes. Since the banks were required to maintain a 100% reserve this meant they could make no loans at all, and they ceased to have a function. In 1876 there were only 4 National Banks (3).

To consolidate their position the Meiji had promised annual stipends to a number of daimyo and samurai who had supported them, in compensation for the loss of their feudal dues under the national land-tax system. In 1876 the government tried to eliminate the burden of this stipend. It was able to limit it to a fixed amount as opposed to a perpetuity. Of this amount half was paid in cash and half in 8% bonds.(4) As usual these government bonds were inconvertible, and their market value quickly declined.

In 1876 the National Banks were allowed to issue notes on the collateral of these bonds. This was done both to revitalize the banks and to placate the samurai, who were understandably upset at the declining value of the bonds they had been forced to accept. The bonds were inconvertible, so National Bank notes would no longer be convertible to specie at fixed rates, which eliminated the possibility of arbitrage. The table of Currency in Circulation

(3) Stillson, op. cit.

(4) Tobata, op. cit.

shows a large increase in National Bank notes following 1876. Also by this time nearly all the debased Tokugawa money had been called in. The number of National Banks grew rapidly.

Eventually the National Banks declined. This was not an internal failing of the banks, which were quite solvent, but the result of realization by the Meiji regime that the National Banks were not fulfilling the desired function of controlling the money supply.

In 1877 the last serious internal challenge to the Meiji - the Satsuma rebellion - took place. As usual the large government expenditures in prosecuting the war were covered by an issue of inconvertible notes. They were sold to the National Banks, who could they issue loans against them. Profits from these loans served as the backing for more loans, there being no limit on the banks' lending ability. So there was an incentive to keep expanding the money supply, which obviously produced inflation. As the Prices and Income table shows, the price index rose rapidly in the years following the Satsuma rebellion. Inflation produced a foreign trade deficit. The government could not float substantial bond issues without losing control of the money supply. In 1879 controls were imposed on the National Banks' ability to make loans, and no new National Banks were allowed.

In 1882-84 the government ran a budget surplus, or which more will be said in the next chapter. The excess money was used to

buy back ¥14 million of the outstanding inconvertible paper, and to create a Reserve Fund of ¥26 million (5). Loans were made from this fund to Japanese exporters with the stipulation that they repay with foreign currency they received for their goods. In this way the volume of government paper currency was reduced and the reserve of specie increased. As the Relative Prices table shows the paper price of silver declined. The Bank of Japan, which had been created in 1882, began to replace government paper currency with its own notes, which could be issued on the security of nonconvertible paper (including corporate stock) as well as government notes. In 1886 the government stopped issuing paper currency and the Bank undertook the conversion of paper currency into silver. As the Relative Prices table shows, the paper-silver exchange rate at last stabilized.

At the same time ancillary financial institutions were created: the Hypothec Bank (agricultural mortgages) and Agricultural and Industrial Banks. The post office saving banks were expanded. A great many commercial banks followed these. These banks allowed a large contribution to the capital stock through many small rural deposits, and taught the common people very early the practice of saving. The Growth table shows that the period 1890-1911 was one of sustained progress, attributable in large measure to the stabilization of the

(5) Tobata, op. cit.

GROWTH RATES OF INCOME

(in annual rate, %)

	Total	Primary Industry	Secondary Industry	Tertiary Industry
1878-87				
1883-92	4.3	2.4	8.6	5.6
1883-92				
1888-97	4.9	4.3	7.4	4.7
1888-97				
1893-1902	5.5	4.3	8.4	5.9
1893-1902				
1898-1907	3.0	1.9	3.9	4.1
1898-1907				
1903-12	2.9	1.6	2.9	4.6
1903-12				
1908-17	3.6	1.2	6.5	4.6
1908-17				
1913-22	4.0	1.8	5.6	5.2
1913-22				
1918-27	5.2	2.3	4.3	7.9

Source: Kazushi Ohkawa - The Growth Rate of the Japanese Economy Since 1878; Kinokuniya Bookstore Co. Tokyo, 1957

monetary sector.

In the summer of 1894 Japan became involved in a war with China in Korea. The causes were complex politically, but the result was a clear victory for the modernized Japanese forces. The Chinese were compelled to pay a huge indemnity, in silver. This money was used to convert Japan to the gold standard, on which most of the rest of the world functioned at the time.

What long-term results did this monetary policy have on the industrialization of Japan? One obvious conclusion is that the stable monetary system, achieved as described, fostered growth of the industrial enterprise. Much literature is available to demonstrate this. But there were other, less obvious results as well. It will be argued here that (a) the monetary policy caused a predominance of bank capital, helping to keep control of expansion in the hands of the government, and (b) the ancillary institutions made the transfer of capital from savers to industry more efficient by narrowing the gap between interest charged and interest paid.

The predominance of bank capital (loans) over private capital (sale of stock) is a characteristic of the Japanese economy even today. At the beginning of the Meiji period there was generally a low level of accumulated capital, it being mostly the personal

holdings of the chonin. At the same time, the businesses that were most needed to compete with the westerners (armaments and heavy industry) required capital on a large scale. When the government poured large amounts of notes into the National Banks and later the Bank of Japan, the principal customers for the subsequent loans were the large industries, there being insufficient private capital to sell stock; besides, most of these firms were closely-held, and in the early Meiji period were seldom joint-stock ventures. Certain banks thus developed close relations with certain large businesses, there being no great diversity of small firms. When large business next needed capital, it was easy to get it from their "friendly" banker, especially since the government, as shown above, continued to push large note issues on the banks since the revenues from the land tax were inadequate. The result over time was a preponderance of bank-debt in the capital structure of Japanese industry, which meant the government could control the rate of expansion by controlling the amount of notes it sold.

This can be demonstrated by examining the following tables. The Growth of Banking table shows that Agricultural and Industrial Banks did not exist until 1898. The Post Office Savings Bank was the only other institution handling the savings of the mass of the rural population. The savings of the rural mass (the majority at the time) give a rough idea of the capital that might

GROWTH OF BANKING IN JAPAN
(number of banks)

Year	National Banks	Ordinary Banks	Quasi- Banks	Savings Banks	Agric. & Indust. Banks
1873	1				
1874	4				
1875	4				
1876	8	1			
1877	26	1			
1878	95	1			
1879	151	10			
1880	151	39	120		
1881	148	90	369		
1882	143	176	438		
1883	141	207	573		
1884	140	214	741		
1885	139	218	744		
1886	136	220	748		
1887	136	221	741		
1888	135	211	711		
1889	134	218	695		
1890	134	217	702		
1891	134	252	678		
1892	133	270	680		
1893	133	545		23	
1894	133	700		30	
1895	133	792		86	
1896	121	1005		149	
1897	58	1223		221	
1898	4	1444		260	41
1899		1561		338	45
1900		1802		419	46
1901		1867		441	46
1902		1841		431	46
1903		1754		469	46
1904		1708		467	46
1905		1697		481	46
1906		1670		488	42
1907		1658		484	46
1908		1635		485	46
1909		1617		483	46

Source: Stillson, op. cit.

have been available for stock purchase had a developed stock market existed. But as the table of Post Office Deposits shows, the amount of money in the Post Office Savings Bank was very small in the beginning, and had only reached ¥28 million in 1896. Yet in that same year the paid-up capital of all types of business firms was ¥398 million, as shown in the Number and Capital table. So even if an organized stock market had existed, it is doubtful whether the largely agricultural population could have adequately funded industry. So a predominance of bank capital developed. Had the government taken steps to foster a private capital market first, and constructed industry from there, industrial expansion would have been slower, and would not have been concentrated in essential industries as it was.

After 1896 the Agricultural and Industrial Banks were established to serve the rural areas. There followed immediately a large increase in the number of Ordinary (commercial) banks, many in the rural areas. Likewise the number of savings banks increased greatly after this time. In a situation where there are many banks, each must compete for deposits, and for loan business with which to make profits on those deposits. The expected result is that interest rates paid on deposits go up, while interest rates charged on loans go down. In other words, the process of trans-

POST OFFICE SAVINGS BANKS
DEPOSITS IN ¥

End of Year	Deposits
1875	15224
1876	41945
1877	100138
1878	286290
1879	494115
1880	662691
1881	821938
1882	1058224
1883	2298502
1884	5260484
1885	9050254
1886	15462053
1887	18213282
1888	19758482
1889	20441354
1890	19514844
1891	20149848
1892	21836663
1893	24815986
1894	24962459
1895	27748216
1896	28678291
1897	26335629
1898	22492262
1899	23335242
1900	24015138

Source: Financial and Economical Annual of Japan, #11, 1902
Government Printing Office, Tokyo

RATES OF INTEREST
(in %)

Year	Loans			Savings Deposits		
	High	Low	Average	High	Low	Average
1902	13.9	10.0	12.1	6.6	6.0	6.3
1903	12.6	9.0	10.7	6.1	5.5	5.8
1904	12.3	9.0	10.7	5.8	5.4	5.6
1905	12.6	9.3	11.0	5.8	5.5	5.7
1906	12.4	8.4	10.3	5.8	5.4	5.6
1907	11.5	8.3	9.9	5.6	5.3	5.4
1908	12.2	9.2	10.8	5.7	5.4	5.6
1909	11.9	8.2	10.0	5.7	5.3	5.5
1910	10.7	7.1	8.7	5.3	4.5	4.8
1911	10.3	7.0	8.4	4.6	4.4	4.5

Source: Financial and Economical Annual of Japan, year 1912
Government Printing Office, Tokyo

NUMBER AND CAPITAL OF COMPANIES

		Number	Authorized Capital	Paid-up Capital
1896	Joint stock companies	2,585	573,285,241	357,524,152
	Limited partnerships	1,667	32,257,928	27,572,436
	Ordinary partnerships	344	13,680,780	12,467,944
	Total	4,596	619,223,949	397,564,532
1898	Joint stock companies	3,475	857,107,294	560,035,782
	Limited partnerships	3,029	50,073,229	39,413,244
	Ordinary partnerships	540	23,655,120	22,227,432
	Total	7044	930,835,643	621,676,458
1900	Joint stock companies	4,254	1,033,435,090	695,903,017
	Limited partnerships	3,560	54,361,699	45,193,678
	Ordinary partnerships	784	40,025,582	38,151,611
	Total	8,598	1,127,822,371	779,251,306

Source: Financial and Economical Annual of Japan, year 1912
Government Printing Office, Tokyo

ferring investment funds from suppliers to users is done more efficiently; less is consumed by the middleman. Upon examining the Rate of Interest table for the late Meiji period, it can be seen that loan interest did move steadily downward, despite the fact that 1896-1911 embraced both inflation and recession periods. Interest paid on deposits also moved down, but not as fast. The spread between the two did decline, suggesting the more efficient transfer of investment capital.

In summary, Meiji policy in the beginning was to issue large amounts of inconvertible currency to meet their huge financial needs. While perhaps necessary, this was at best a temporary expedient. Coupled with two inadequate structures for the National Banks it produced monetary instability, which brought pressure from the foreigners. The Bank of Japan was successful in stabilizing the monetary system. Meiji monetary policy produced two other results: a predominance of bank capital over private capital, and a reduction in the spread between interest paid and interest charged.

FISCAL POLICY

The fiscal policy of the Meiji government may be divided into four broad areas. First, the land tax was reformed as a revenue base for the government. In the early years this tax was not adequate to meet all government expenses, and large amounts of paper money were issued to make up the difference. While this disturbed the stabilization of the monetary system, it did provide needed growth. Later on it caused inflation. Periods of deliberate deflation (e.g. under Matsukata) had the result of forcing a shift in the distribution of the labor force, away from agriculture into industry. While newer methods allowed total farm production to keep growing. A second aspect of fiscal policy was the establishment of large, government-run industries, and their subsequent sale to private owners. This resulted in the growth of the zaibatsu so characteristic of the Japanese industry. These industries were usually monopolistic, but as a result they faced a sufficiently large domestic market to enable them to compete effectively with foreigners. Thirdly, large expenditures were made in the military sector. While this was not the most productive area from an economic point of view, it hastened the decline of foreign control in Japan, and enabled the nation to win two wars and the associated large indemnities. It also accelerated the growth of other heavy industries, since the gun factories and shipyards also turned out mining equipment, boilers, and so forth in their "spare" time. The government was thus able to directly control the direction and scale of heavy-industry growth. Fourthly, significant sums were spent to hire western technicians and to send Japanese abroad to study.

One of the first steps of the new Meiji government was to end the old feudal dues and replace them with a land tax payable in money,

not in kind, directly to the central government. The tax was based on the assessed value of land, not the crop yield in any particular year. It was thus both predictable (for the farmer) and reliable (for the government). It usually ran about 3% and was lighter than the farmer's feudal dues had been. Later in the Meiji period other taxes were added. An income tax was created in 1887, with rates ranging from 1 to 3%. The various indirect taxes and their dates of introduction are: taxes on the brewing and selling of sake (1871), a sugar excise (1901), a soy tax (1885), bourse tax (1885), mining tax (1875, 1890), fishery taxes (1887), tobacco tax (various, from 1876), tax on the manufacture and sale of confectionary products (1885). Some import duties were collected, but Japan did not regain full control of her tariffs until 1911. (1)

As the table of Sources of State Revenue shows, tax receipts constitute a small part of total government expenditure in the early years, and reach 90% only about 1876. Loans are also not a significant factor in these years, which is not surprising given the situation of the government. Most of the deficit was made up by resorting to the printing press, in the form of inconvertible paper.

It is very important to recall from chapter two that a real money economy was only just coming into existence at this time in Japan. Also much of the money printed went directly into the hands of

(1) Financial and Economic Annual of Japan, #11 (1902)
Government Printing Office, Tokyo

capital-accumulators (rather than immediate spenders) in the form of stipends to former nobles who had lost their feudal dues in the land-tax reform. Thus, although this kind of printing-press financing wrought havoc with efforts to stabilize the currency and create national banking, the agricultural sector (which at the time contained the great bulk of the capital and labor of the nation) was able to absorb the large paper issues without adverse strain.

The normal result when a government prints large amounts of paper money is inflation, since the supply of currency in circulation increases much faster than the supply of goods and services available for purchase. But in Japan this did not happen. The creation of the land tax, the abolition of the feudal dues, the printing of large amounts of paper money, and the introduction of a money economy to the rural areas all coincided. The tax, which was due in the harvest months, had to be paid in cash, so poor farmers flooded the market with rice at that time, driving prices down (2). Meanwhile wealthy farmers and former daimyo were typically receiving stipends from the government in place of their lost feudal dues, so these men could withhold their crops until prices improved, paying taxes with accumulated savings. So some poor farmers were gradually made unemployed (unemployment usually counteracts inflation) and were then available to shift to the growing industrial market as laborers. And former daimyo (who had

(2) Oshima, Harry T. "Meiji Fiscal Policy", in Lockwood, William J. The State and Economic Enterprise in Japan, Princeton, 1965

been conspicuous consumers, as mentioned in chapter two) were encouraged to save their money for periods of time, thus fostering capital accumulation and making loans available for industry. Recall that at this time banking was not extensive in the rural areas, so former daimyo, who could travel and had widespread connections, were likely to save at city banks, who naturally made loans to industries in their city. Had rural banking been extensive, loans could have been made in large numbers to poor farmers, with a wholly different effect.

As seen previously, the primary pressure for ending the issue of large amounts of paper money and recalling bonds came from the foreign governments, whose merchants in Japan were being hurt, and from bankers, who suffered from arbitrage. The agricultural sector probably could have withstood this practice for longer than it had to. Recall that the onset of drastic inflation was associated with the elimination in 1876 of payments to former daimyo, and the substitution of a fixed amount of inconvertible government bonds. Widespread dissatisfaction with the declining value of these bonds led the government to the expedient of allowing the National Banks to issue notes against these bonds, in unrestricted quantity. Inflation began, and was really accentuated the next year with the floating of the Satsuma Rebellion bonds through the National Banks.

Runaway growth of the money supply thus resulted, instead of the controlled growth arising from limited paper money issues and a

SOURCES OF ANNUAL STATE REVENUE
(¥ million)

Year	Taxes	Loans	Gov't. Enterprise	Misc.	Paper ¥ Issued	Total
1868	3.3	4.7	.1	1.0	24.0	33.1
1869	4.4	.9	.1	5.0	24.0	34.4
1870	9.6	4.8	.2	1.0	5.4	21.0
1871	14.3		.3	5.3	2.1	22.0
1872	22.6		.2	9.8	17.8	50.4
1873	64.5	10.8	2.4	7.8		85.5
1874	64.8		2.6	6.0		73.4
1875	75.8		3.6	6.9		86.3
1876	57.8		7.6	4.1		69.5
1877	50.3		5.4	3.7		59.4
1878	46.2		3.6	2.5		52.3
1879	49.7		3.8	8.9		62.4
1880	53.5		3.9	4.8		62.2
1881	52.7		5.4	5.3		63.4
1882	58.8		5.0	7.6		71.4
1883	64.9		4.3	4.3		73.5
1884	64.2		5.6	13.3		83.1
1885	63.8	2.0	5.6	5.3		76.7

Source: Financial and Economic Annual of Japan, #11 (1902)
Government Printing Office, Tokyo

money market dominated by the savings of rural daimyo. This inflation would have happened sooner or later anyway as industrial capital came to supercede rural daimyo capital in the money market, but the point is that the government could probably have relied on the cheap and controllable expedient of printing money for a while longer than it did.

Prince Matsukata was minister of finance when the Satsuma inflation occurred. His solution was to run a current surplus in the following years and use the surplus to buy back much of the outstanding paper. His chief goal, as seen, was to permit consolidation of the Bank of Japan. But the "Matsukata deflation" also had a useful effect in the agricultural sector. As prices fell rapidly, many small (i.e. less efficient) farms went bankrupt, and the farmers were forced to enter the industrial labor market and move to the cities. As the table of Labor Force Distribution shows, the farm labor force actually grew at a rate slower than the population as a whole (i.e. declined) while the manufacturing labor force grew rapidly. Other sectors, such as building construction, mining, etc. are not shown but they also increased. At the same time agricultural production did not suffer, due to use of fertilizers and modern methods. As the table of Agricultural Production shows, yield per tan increased during this time, as did fertilizer consumption. So by deliberate deflation the Meiji government was able to force a more rapid shift of the labor force than might otherwise have occurred.

LABOR FORCE DISTRIBUTION
(millions)

	Total	Farming	Manufacturing
1880	36.9	15.7	1.091
1881	37.2	15.8	1.172
1882	37.5	16.0	1.264
1883	37.9	16.1	1.347
1884	38.2	16.2	1.438
1885	38.5	16.3	1.525
numerical change 1880-1885	1.6	.6	.434
% change 1880-1885	4.3	3.8	39.6

Source: Ohkawa, Kazushi - The Growth Rate of the Japanese Economy Since 1878 ; Tokyo, Kinokuniya Bookstore Co., Ltd., 1957 various pages

AGRICULTURAL PRODUCTION
(in koku)

Period	Rice Yield per Tan	% Change from Previous Period
1878-82	1.166	-
1883-87	1.297	11.2
1888-92	1.428	10.1
1893-97	1.371	-4.0
1898-1902	1.516	10.6
1903-07	1.626	7.2
1908-12	1.734	6.6
1913-17	1.843	6.3
1918-22	1.927	4.6

Period	Fertilizer Consumed (¥million, 1934 prices)	Index 1900=100	% Change from Previous Period
1883-87	212.0	100.0	-
1888-92	218.8	103.2	3.2
1893-97	231.9	109.4	6.0
1898-1902	248.2	117.1	7.0
1903-1907	270.5	127.6	9.0
1908-1912	322.6	152.2	19.3

Source: Nakamura, James I. - "Growth of Japanese Agriculture, 1875-1920"
in Lockwood, William W. - The State and Economic Enterprise
in Japan, Princeton, 1965

Industry required plants and materials as well as labor. In the early years no private group had sufficient capital to construct western-style industry. The Meiji government undertook the construction of state enterprises in various areas, especially heavy industry. This was a crucial decision, though it has not been without side-effects. If the government had allowed the price system and free markets to create many small, duplicative, inefficient firms they would have quickly been defeated by western imports; the westerners firmly controlled Japan's tariff laws. By building, and subsequently selling to private owners, state enterprises in certain key industries the government produced large, modern firms able to compete with the outside world rather than with each other.

The development of state enterprises was intimately connected with the military needs of the nation; some of the earliest and largest state factories were munitions plants. As pointed out in chapter two, a great many former samurai were available for positions in the new administration. The whole country had a strongly military outlook. The ex-Samurai correctly saw the foreign challenge as one to be met first and foremost on a military basis. Without recovery of tariff autonomy it did little good to improve domestic industry.

Various small-arms factories had been established under the Shogunate. The Meiji government took these over and consolidated them into two large arsenals at Tokyo and Osaka in 1877. A most important acquisition was the shipyard at Yokosuka, begun by the

Shugunate in 1864. By October 1871 the Meiji government had installed 160 machines and 50 iron-working furnaces, and turned out 10 vessels of 740 tons. Since ships could not be assembled as fast as the shops could turn out parts, Yokosuka was also directed to build mining apparatus for the Ikuno mine, as well as steam machines and boilers for other industries. Part of this rapid expansion was supervised by imported foreign technicians. (3)

This pattern is typical of other yards and plants either expanded or built from scratch by the government prior to about 1880: Nagasaki shipyard, Tsukiji Naval Arsenal, Iwahana powder plant, etc. In addition the government constructed mines and steel-making plants to supply these armament factories. The list is quite long, and its recitation would serve no purpose here. The important points are that (a) all the plants were made large and efficient on the western model (usually by employing foreign experts), with as little duplication as possible; internal competition was deliberately avoided; (b) most plants could produce faster than complex machines could be assembled and put to use by the military, so instead of building a smaller plant or running at less-than-full output the excess capacity was directed at building new mines, etc.; (c) heavy industry came to depend on armament orders, with the obvious and ominous result once the needs of mere defense had been satisfied.

(3) Shibusawa Keizo - Japanese Society in the Meiji Era,
Tokyo, Obunsha, 1958

Thus the government gradually acquired non-military industries in addition to the original armament factories. These included mines at Aburato, Nakosaka, Ani, Takashima, and Kosaka, several brick and cement factories, and silk and cotton mills. These last were started to provide blankets for the military and to produce products salable abroad, bringing in needed foreign exchange.

On November 5, 1880 an important change in government policy took place. The decision was made to sell off the government enterprises. Over the next few years most of them were sold, with the exception of the armament plants, shipyards, railways, and the telegraph system. The table of Purchasers and Prices gives information on the sale of some of the major industries; there were numerous smaller businesses. A striking feature of this table is the advantageous nature of the sale to each of the buyers. The government appears to have taken a substantial loss in each case, while the buyers obtained very generous and lengthy payment terms. Most of the buyers were also very prominent socially and politically.

The questions thus arise why did the government sell their businesses in this way? What did they expect the results to be, and what were the actual results? Several arguments can be advanced. Some, especially those of Marxist leanings, like to believe that the government sought to solidify its position by an alliance with the most wealthy and prominent factions outside office. Key industries could in this way be kept under direct control of individuals

PURCHASERS AND PRICES OF GOVERNMENT
ENTERPRISES

Enterprise	Date of Sale	Gov't Invest.	Purchase Price	Terms	Purchaser
Fukugawa cement fact.	1884	¥ 169,631	¥ 61,700	25 years	Asanoiro Soichiro
Kosaka mine	1884	547,476	273,000	¥200,000 over 25 years, bal. in 16 more yrs.	Kuhara Shozaburo
Shinagawa glass fact.	1885	189,631	80,000	55 annual payments, start in 1890	Nishimura Katsuzo
Ani mine	1885	1,606,271	337,000	¥10,000 down ¥87,000 in 10 years, bal. in 24	Ichibe
Sakai cotton mill	1878		25,000	15 years	Hamazaki
Ozuku mine	1879	149,546	27,131	¥12,784 in 15 years, bal. in 3	Okuda Hamba
Tomioka silk mill					Mitsui
Fukugawa brick fact.	1884	93,276	83,862		Asano Soichiro
Takashima coal mine	1874		550,000	¥200,000 down bal. in 7 yrs	Goto Shojiro
Annai mine	1884	675,093	75,000	¥2500 down, bal. in 29 yrs	Furukawa Ichibe
Nakaosaka mine	1884	73,803	25,000	¥250 down, bal in 20 years	Sakamoto Yahachi
Nagasaki shipyard	1884	628,767	459,000	25 years	Iwasaki Yataro

Aburato mine	1884	48,608	27,943	¥3000 down ¥6943 in 1 year bal. in 13 yrs.
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Source: Smith, Thomas C. - Political Change and Industrial Develop-
ment in Japan: Government Enterprise 1968-1880
Stanford University Press, 1955

friendly to the government. Another school of thought sees the bargain sales as a response to social and political pressure against the Meiji regime. It is well known that around 1880 popular dissatisfaction with the government was pronounced. Many ex-samurai and daimyo were resentful of their reduced position in society, and became even more resentful after the elimination of their government stipends. The abortive Satsuma rebellion discouraged military resistance, but the resentment was channelled into political partisan activity; the development of political parties dates from this period. In 1881 the government was forced to promise a democratic constitution. The sale of state enterprise might be interpreted as another action of this sort. Finally the sales might have been made for financial reasons, to generate revenue.

Smith (ibid) makes an argument for the financial reason, based on the government's need for specie to stabilize the currency. But compare the money to be actually collected in the period 1880-1890 (from pp. 56-7) with the total state revenue (= total expenditure) from p. 49. The extremely generous sale terms provided for very little income to the government at this time relative to total expenditure. Furthermore, as shown in chapter three, the need for specie was rapidly met by the Reserve Fund created during the Matsukata deflation. Loans from the Fund were made to Japanese exporters (p. 35) with the stipulation that they repay directly in the foreign currency earned by their sales abroad.

Some other information is relevant here. Although it was never recorded in the official government publications, the state enterprises were not earning profits at the time of their sale. Most of the profits shown on p. 49 came from the unsold businesses. The unprofitability of these businesses is referred to so frequently in contemporary documents that there can be little doubt of it. Matsukata himself even makes such reference in a financial report to the Prime Minister in 1890 (4) So the "bargains" were not all that good. Whether the sales were a response to political pressure, or were the result of growing philosophies of economic liberalism, are both moot arguments. Unquestionably the primary focus of political activity was a more representative process, to get greater voice for former samurai and daimyo.

A more plausible explanation might be the desire to foster the growth of western-style joint-stock business (i.e. the corporate organization) after the government had done the part too difficult for the private sector. The government plants were originally built because the private sector lacked the capital to build on a sufficiently large and efficient scale. Around 1880 these businesses were still not large by western standards, but they had been equipped with the latest machinery, and a labor force trained in western methods. The government had absorbed all the initial

(4) Tsuchiya Takao and Ouchi Hyoei - Collection of Historical Materials on Finance and Economy of the Early Meiji Period vol 11, p. 215; Tokyo, 1931. It is at least a good chance to

start-up losses, and had prevented duplication of effort, thus guaranteeing no domestic competition and at least a good chance to compete with the west. By giving a head-start to selected industries a pattern for expansion was already set, and the industries were ready for private take-over. To continue support would serve no real purpose, and would be a financial drain.

Reviewing the development of joint-stock companies in 1899, the great industrialist Shibusawa Eiichi concluded that this form of enterprise was the source of the astonishing progress of Japanese industry. (5) He had been deeply impressed with the company system during travels in Europe, where he had seen great industrial projects impossible to construct without the united capital of many individuals. He passed along many of these attitudes during a period of office with the Ministry of Finance. When the government undertook loans to ex-samurai to start new ventures in the 1880's, a condition was that such enterprise be of the joint-stock form. It is possible that the government realized that it had done all the ground-breaking it could in heavy industry, and that a real boom in growth could now only be made by a larger infusion of capital that it could reasonably afford.

However, the government was much more successful in developing private ownership and financing for industry than in stimulating

(5) Hirschmeier, Johannes - "Shibusawa Eiichi", in Lockwood, W.K. The State and Economic Enterprise in Japan, Princeton, 1965

joint-stock private enterprise. Former samurai, who had no ingrained business tradition and little capital, had little choice but to adopt the company form of organization if they wanted to go into industry. They were largely the pioneers of company enterprise. But the great merchant houses, which had grown up in han trading monopolies, were reluctant to relinquish their authoritarian character. Where useful for dealing with the government they instituted a company facade, but in reality the senior members of the family ruled with iron hands. This was made possible by control of their "own" banks, as mentioned in chapter three. They could get expansion capital without resorting to stock issue; this has remained a characteristic of many large Japanese firms, where debt typically forms a much larger proportion of total capitalization than for firms in the United States. An outstanding example is Mitsubishi, founded by Iwasaki Yataro. The company began as a continuation of a shipping and trading establishment which had enjoyed the monopoly of the Tosa han under the Shogunate. It had a company structure, but the family owned all the stock.

Notable clashes of the two forms of enterprise occurred. Shibusawa could not stand the monopoly practices of Mitsubishi, and joined with the Mitsui zaibatsu to establish a rival shipping company. Mitsui had suffered the most under Mitsubishi's monopoly pricing and gladly cooperated in founding the Tokyo Sailing Ship Company in 1880. When it proved insufficient competition for

Mitsubishi, other smaller firms were added, to form the United Transport Company. In 1881 Mitsubishi's protector in the government was ousted, and the government added substantially to United's capital. In the fierce competition that followed fares between Kobe and Yokohama dropped from ¥5.5 to ¥.25 in two years. The supporters of Iwasaki and Shibusawa carried on smear campaigns against both men, while both companies exhausted themselves. By 1885 Shibusawa was proposing that the government step in to regulate competition. But meanwhile, with his easy access to bank capital, Iwasaki secretly bought up over half the stock of United Transport, eliminating Shibusawa's influence in this business.

There are many examples of this kind. They all point out how, while the decision to move industry into private hands was undoubtedly the correct one, the government might have been more judicious about to whom it sold the businesses. The sold enterprises came with built-in advantages (monopoly in the domestic market, start-up inefficiencies already absorbed), and the great merchant buyers had another advantage (easy access to cheap bank capital). The result was the gradual concentration of economic power and control in a few hands, although the goal of rapid industrial expansion was indeed met. The Japanese economy more or less adjusted to this structure, but the political repercussions were profound. The heavy industries already depended on armament orders; the country was generally militaristic in outlook by long tradition; and the successes in the Sino- and Russo-Japanese

wars further developed aggressive attitudes in the government and the zaibatsu. The role of the zaibatsu in twentieth-century Japanese militarism has been discussed at length in many other studies.

The fourth part of Meiji fiscal policy was a high level of expenditure for import of western technicians and the sending abroad of Japanese students and government officials. China, with its traditional ethnocentric attitudes, completely failed in this area until it was too late.

As the following tables show, a very sizeable proportion of the budget of the Ministry of Industry was spent to hire foreign technicians. Most were English or German, and were employed chiefly in the state enterprises. In this way the government was able to make its businesses models of western efficiency before selling them off, which was an effective way of spreading technology. The number of foreigners employed declined rapidly after 1880, even before most of the enterprises had been sold (p. 56) because enough Japanese had returned from study abroad to fill the need.

The government sent more officials abroad than students. Many of these officials were military officers. But technology was just beginning to play an important role in military affairs in the latter part of the nineteenth century, so their foreign training was not confined to tactics. At the time most of the developments around the world in hydraulic machinery and metallurgy were being made in armament factories, so the military officers studying abroad were

SALARY PAID TO FOREIGN EMPLOYEES IN THE
MINISTRY OF INDUSTRY

Year	Min- ing	Rail- road	Tele- graph	Light- house	Mach- inery	Build'g	School of Tech.	Tot. *	Ratio to **
1868	3.2			1.2	30.2			46.6	
1869	14.6		.2	30.7	41.7			87.3	
1870	27.7	32.9	3.0	58.8	55.2			177.8	31.9%
1871	30.6	106.7	16.7	69.7	68.2		2.5	294.6	31.9
1872	31.9	172.8	46.4	72.2	80.5		14.6	438.8	63.4
1873	75.1	231.2	57.8	77.2	34.1		58.7	534.4	39.2
1874	111.2	289.3	65.2	74.8	30.8	14.8	42.3	628.8	27.7
1875	96.5	278.8	67.3	88.8	32.1	8.3	44.5	616.5	56.1
1876	100.9	234.0	70.2	74.1	27.0	8.7	54.9	570.0	56.3
1877	68.7	143.1	66.1	66.9	35.9	12.3	63.8	457.2	66.6
1878	40.9	114.9	66.0	51.4	37.9	14.5	60.7	386.5	51.6
1879	49.9	95.3	45.3	40.4	31.9	17.7	61.7	342.4	48.2
1880	44.0	84.1	31.2	20.5	23.9	18.1	60.7	282.8	44.1
1881	46.3	66.6	16.8	9.2	29.8	5.5	44.8	219.1	41.7
1882	37.5	59.5	13.0	6.8	29.1	4.8	28.7	179.6	33.0
1883	13.5	52.7	13.0	.6	20.3	4.8	22.6	127.6	24.7
1884	2.5	50.1	11.4		8.5	2.0	22.2	96.7	17.2
1885		49.5	11.2				22.2	82.9	16.9

* including Other

** ratio to total Ministry of Industry expenditure

FOREIGN EMPLOYEES BY NATIONALITY

	1876-1885	1886-1895	Total	%
U.K.	1247	969	1716	43.8
Germany	313	312	625	16.0
U.S.A.	274	309	583	14.9
France	263	97	360	9.2
China (ch'ing)	102	64	166	4.2
Italy	61	64	125	3.2
Holland	69	32	100	2.6
Austria	30	25	55	1.4
Other	88	97	185	4.7

Source: Koichi Emi - Government Fiscal Activity and Economic Growth in Japan 1868-1969; Tokyo, Kinokuniya Bookstore Co. Ltd., 1963

GOVERNMENT EXPENDITURE REQUIRED TO ADOPT MODERN TECHNIQUES (¥ mil.)

	Total payment to foreign employees	Expenses for Officials & Students sent abroad		Total	Total Exp. in Ordinary Account of Government
		Official	Student		
1868-72	3160	992	543	4695	79,316
1873-77	7906	327	375	8608	322,163
1878-82	3774	726	582	5082	293,105
1883-87	2577	1018	213	3808	310,165
1888-92	2522	929	365	3916	321,717

CENTRAL GOVERNMENT EXPENDITURE IN EDUCATION (¥ mil.)

	Educational Expenses by Ministry of Education	Educational Expenses in Central Government	Total Expenditure in Central Government	% of C.G. Total
1868-72	2.3	2.8	148.4	1.88%
1873-77	7.4	9.7	388.0	2.50
1878-82	4.5	7.4	329.3	2.24
1883-87	5.1	5.8	383.6	1.51
1888-92	6.7	7.6	403.6	1.88
1893-97	9.0	10.3	640.6	1.60
1898-1902	26.4	29.8	1322.8	2.25
1903-07	32.4	38.5	2014.1	1.91
1908-12	34.2	56.5	2917.4	1.95

Source: Koichi Emi, op. cit.

able to learn the latest techniques, which were then applicable to a wide variety of industries when they returned home.

In domestic education the government made a commitment to universal public education, which improved the nation's capacity to absorb foreign technology and eventually to develop their own. By 1890 50% of all young children had organized schools available to them, and in 1908 six years' schooling was made both free and compulsory. Attendance rose to 90%. (6) Widespread formal schooling was also made necessary by the promulgation of the promised republican Constitution in 1889; a literate population can still be manipulated, but an illiterate population is much more easily misled.

FOREIGN TRADE POLICY

Foreign trade had been forbidden under the Shogunate. There had even been a ban on the building of large ships. With the entry of the westerners in the 1850's foreign trade began, usually centered around each of the local han, whose chief interest was in acquiring weapons. When the Meiji came to power they banned all such local trade, and forced trade to proceed through government-supervised channels. This effort was only partially successful in the beginning, but became more workable when the Yokohama specie bank and other organizations were set up to carry on foreign exchange in an organized manner. The Yokohama specie bank was the instrument for implementing a major aspect of Matsukata's policy: the acquisition of foreign specie to help stabilize the currency by means of loans to Japanese exporters repayable only in foreign specie. The Bank also undertook the inspection for quality of cargoes leaving Japan. The government also promoted foreign trade by aggressive advertising of Japanese products abroad, establishment of many consulates, trade fairs and exhibitions, and so forth.

Foreign trade, indeed all foreign contact, had been banned for centuries under the Shogunate. There were even laws against the building of ships over a certain tonnage. This was one reason why Japan lagged greatly in technology; many of the western advances in heavy machinery had been made in the shipbuilding industry, particularly the navy.

When the treaty ports were first set up in the 1850's, the reformers who later became the Meiji government denounced the Tokugawa regime as traitors to their country. But as the overwhelming

superiority of the westerners became clear, the future Meiji leaders pragmatically adopted the course of approving foreign trade, with hopes of using it to their own advantage.

This advantage did not begin to materialize until after 1880, and Japan did not regain full tariff autonomy until 1911. The Meiji tried very early to secure return of autonomy diplomatically, with a series of embassies in 1871; the western nations all refused. So other measures had to be taken. Dealings by local governments, which had been the Tokugawa pattern, were forbidden. Tsushoshi (trade offices) were established at every port in 1869 to control foreign trade, but these had to be abandoned in 1871. They were subsequently revived. During this same time the government actively organized a large firm of merchants with Mitsui Hachiroemon at its head. This was a joint-stock company, similar to and probably modelled on the European East India Companies that frequented Japanese ports. It was most important for Japanese merchants to put their capital together to achieve the necessary size to compete with the west; the government had much more success in fostering joint-stock companies in this area of the economy than in industry. This "Trade Association" was the first company system Japan imported from the west.

Other such trade firms arose, and each tended to control trade in its home port, limiting access to merchants affiliated with the firm. The government seized on these firms as a means of controlling

AMOUNT OF FOREIGN TRADE
(,000 ¥)

Year	Total	Exports	Imports	Balance
1868	26,246	115,553	10,693	4,860
1869	33,692	12,909	20,783	-7,874
1870	48,284	14,543	33,741	-19,198
1871	39,885	17,968	21,917	-3,949
1872	43,201	17,026	26,175	-9,149
1873	49,742	21,635	28,107	-6,472
1874	42,779	19,317	23,462	-4,145
1875	48,586	18,611	29,975	-11,364
1876	51,676	27,711	23,965	3,746
1877	50,769	23,348	27,421	-4,073
1878	58,862	25,988	32,874	-6,886
1879	61,128	28,175	32,953	-4,778
1880	65,021	28,395	36,626	-8,231
1881	62,250	31,059	31,191	-132
1882	67,169	37,722	29,447	8,275
1883	64,712	36,268	28,444	7,824
1884	63,544	33,871	29,673	4,198
1885	66,503	37,146	29,357	7,789
1886	81,044	48,876	32,168	16,708
1887	96,711	52,407	44,304	8,103

1888	131,160	65,705	65,455	250
1889	136,164	70,060	66,104	3,956
1890	138,332	56,603	81,729	-25,125
1891	142,454	79,527	62,927	16,600
1892	162,428	91,102	71,326	19,776
1893	177,970	89,712	88,257	1,455
1894	230,728	113,246	117,481	-4,235
1895	265,372	136,112	129,260	6,851
1896	289,517	117,842	171,674	-53,831
1897	382,435	163,135	219,300	-56,165
1898	443,255	165,753	277,502	-111,748
1899	435,331	214,929	220,401	-5,472
1900	491,691	204,429	287,261	-82,831

Source: Shibusawa Keizo - Japanese Society in the Meiji Era
Tokyo, Obunsha, 1958

YOKOHAMA SPECIE BANK
(,000 ¥)

Year	Deposits		Bills Discounted	
	Amt. Trans.	Balance	Amt. Trans.	Balance
1880	24,171	3,187	454	88
1881	45,702	4,014	1,163	129
1882	51,428	3,849	308	20
1883	78,477	13,742	361	19
1884	118,789	20,829	1,739	338
1885	147,804	16,564	2,956	637
1886	119,474	17,473	8,735	1,515
1887	103,846	12,758	38,311	2,008
1888	120,624	15,472	59,037	591
1889	84,539	7,143	33,935	438
1890	93,362	4,732	42,901	2,126
1891	76,704	5,532	44,617	2,433
1892	94,800	2,743	50,301	1,407
1893	114,915	6,422	52,530	2,397
1894	239,241	11,002	72,100	2,957
1895	322,413	13,051	82,301	4,286
1896	556,037	18,186	154,719	6,034
1897	673,454	36,134	197,841	9,314

Source: Financial and Economical Annual of Japan, #11 (1902)
Tokyo, Government Printing Office

foreign trade. For example, in Osaka the local government published decrees that anyone who wanted to engage in foreign trade there had to join the company. But these efforts at presenting a strong front through a few large companies bogged down before foreign pressure and complaints of non-member merchants. The regulations had to be relaxed.

In 1875 Okubo Toshimichi presented a motion to the government.

Since Japan opened her ports to foreign trade, all the trade rights have been in the hands of the foreigners, so that Japanese traders have been under their sway. Some Japanese traders rose from the position of obscurity to big business, but none of them have been able to compete with foreign traders, by whose hands the trade rights are monopolized. This failure of Japanese traders may be explained by the facts that Japanese traders lack knowledge of foreign trade and their capital is too limited. Under the circumstances the best way to promote Japanese foreign trade is to make Japanese traders ship their export goods directly to foreign lands by their own hands. (1)

This kind of direct export would mean recovery of trade rights from foreigners. This idea was not put into practice for another five years. The continuing drain of specie, and its effect on the currency, finally alerted the government to begin a new program.

In 1880 Matsukata established the Yokohama Specie Bank, whose principal functions were to discount and exchange foreign currency and to make loans to Japanese exporters. Such loans were made with money accumulated in the Reserve Fund mentioned previously, a result of Matsukata's deflation program. A stipulation of these loans was

(1) Shibusawa Keizo, op. cit., p. 482

that they be repaid on the conclusion of the voyage in the foreign specie earned on that voyage. In this way Matsukata was able to both encourage direct export, taking some economic power away from the foreigners, and also to accumulate the specie needed to stabilize the monetary system. The tables clearly show a pronounced shift in the balance of payments following the deflation and the founding of the Yokohama Specie Bank.

To trade abroad effectively, Japan also needed quality goods desired in the west, and knowledge of western markets. The previous chapter showed how industries were fostered. Quality control was added to the functions of the Yokohama Specie Bank. Since it was by far the largest financier of exports, it was in a position to examine many of the cargoes. Whatever was not up to standard was not allowed to leave.

The government took a direct role in providing knowledge about foreign markets. Consulates were set up in San Francisco (1870), Shanghai, New York, and Foochow (1872), Amoy, Tientsin, and Honolulu (1874), and Yingkow, London, Chefoo, and Vladivostok (1876). Later consulates were established in European ports. Consular staffs actively investigated local market conditions. They conducted trial sales of Japanese goods and advised the home merchants of the results. The Kansho-kyoku (Bureau for the Encouragement of Commerce) began regular publications on foreign markets.

Japan also participated enthusiastically in international fairs.

Among them were fairs at Vienna and London (both 1873), Melbourne (1875), and Philadelphia (1876). The largest effort was at the Paris fair of 1878.

As with heavy industry, the government took the initiative in advertising Japanese goods abroad and promoting exports, where private capital and experience were either slow or deficient. The aim (or at any rate, the result) in industry was to create small but modern businesses with sheltered markets, ripe for take-over and expansion by private owners. The government assumed the start-up risk. In foreign trade, the government assumed the risk and expense of acquiring knowledge and introducing products, even though this was certainly a drain on resources that could have gone into capital construction. In this way private trade was able (willing?) to follow more rapidly than if the merchants had to bear all the risk themselves.

APPLICATION OF THE JAPANESE EXPERIENCE TO
OTHER DEVELOPING ECONOMIES

The whole point of studying past events is to gain insight into present and future situations. A final question thus arises. What lessons might be drawn from the success of Japanese industrialization that could be applied to other developing countries today?

Obviously, many economic circumstances are not the same today. The world is not on the gold/silver standard. Militarily-enforced imperialism is no longer in vogue, although economic imperialism still exists. Few, if any, countries possess the set of economic and social conditions mentioned in chapter two, particularly the willingness to copy what is superior in other cultures.

But many LDC's do possess some of the key elements of the Japanese success. Nationalism and opposition to foreign encroachment is strong in LDC's, and many of them are just developing money economies in the rural areas - a fortuitous circumstance for Japan. Most of them have better natural resources than Japan, but smaller populations.

One lesson seems to be that governments should not try to develop free markets on the western model in the beginning. Free markets and the price system lead to small, duplicative, inefficient industries that cannot compete with foreign firms. The Japanese deliberately created large, monopolistic national markets, thus

spreading the available capital over a number of key industries. It was deemed more important to develop technology first, and worry about free competition later. Where LDC's are too small to develop efficient national markets, the regional market may be an answer. In the Andean Common Market, efforts are underway to assign the development of particular industries to particular countries, thus avoiding duplication throughout the region.

The role of the government should be to bear the risk and provide the initial capital in areas where private sources are reluctant or inexperienced. It was not necessary that the Japanese state enterprises run at a profit. The valuable result, whether deliberate or not, was to introduce machinery and techniques and establish a sheltered market. Then private ^{OWNERS} could take over and expand at a rapid rate.

In its earliest years an LDC government can apparently get away with printing-press financing if a money economy is just beginning and if a mechanism exists to channel the paper into savings, which are then loaned out for industrial expansion. If the money enters the market for consumer goods and services, undesirable inflation will result.

The Japanese used periods of deliberate deflation to great advantage: to consolidate the currency, shift labor forces, and firm-up foreign trade. LDC's have a tendency to try to keep expanding, delaying eventual deflation either to later generations or until

some catastrophe occurs. They might do well to imitate the successful use of default by the Japanese.

Encouragement of direct exporting was very important for the Japanese, for it took away some of the foreigners' bite and brought in needed foreign specie. Many LDC's should find this policy easy to follow, since they often possess mineral resources needed in the developed countries. But the Japanese experience shows that this policy works best when the government bears the risk of introducing new products, exploring market conditions, etc.

In general, the successful efforts of the Meiji government were predicated on the assumption of risk by the government, followed by rapid private expansion of the industries once the uncertainty had been reduced. The private merchant houses stood to lose fortunes if they undertook such ventures from the start. But "risk" and "loss" do not have the same meaning for governments. Unlike a private fortune, a government's "fortune" is not fixed rigidly; it is limited only by the tax base. If government industries incur losses during the risky start-up period, the losses can be replaced with new taxes, bonds, etc. The private merchant does not have this flexibility. The concept of government businesses does not sit well with American notions of free markets, but it certainly accelerated Japanese development. It is the author's opinion that free markets work best in developed economies, and that the idealistic imposition of a free-market system on an underdeveloped economy may

actually retard growth. The only problem is to keep open a mechanism for freeing the markets when the level of development is appropriate. This the Meiji did not fully succeed in doing, and the result was increasing aggressive militarism.

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