Japan at a Crossroads

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Abstract

Following our review of recent economic changes in Japan, we continue or study by speculating on the future course of macroeconomic changes of the IS balance and the trade balance associated with population aging and post-industrialization.   Interpreting Japanese-style capitalism as a joint politics-bureaucracy-business utility maximization, we discuss the process of its demise as the collapse of this collective utility function.

The sound of the bell of Jetavana echoes the impermanence of all things. The hue of the flowers of the teak-tree declares that they who flourish must be brought low. Yea, the proud ones are but for a moment, like an evening dream in springtime. The mighty are destroyed at the last, they are but as the dust before the wind.

—*Heike Monogatari* [Tales of the Heike]
(c. 1220, author(s) unknown),
as translated by A. L. Sadler
(Roland, VT: Tuttle, 1972).

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Likely Scenario

Recent economic changes, which we reviewed in the preceding section, all suggest that Japan is now truly at a crossroads. If our thesis of fifteen-year cycles is correct, Japan must already be in a new era. Our question here is which way Japan is now moving. In the following, we examine the quantitative side of the question.

Population Aging

The most prominent feature of Japan from this point forward is the rapid expansion of the older population and the continued decline of the younger population through the year 2010 according to the Ministry of Welfare's projection (see Table 9, page 46).

In Table 9, we have estimated the labor force from the projected population on an assumption that the LFPR will remain unchanged from the 1993 level except for females aged fifteen to sixty-four. For the latter, the LFPR is assumed to increase by 2.2 percentage points every five years following the trend of growth between 1975 and 1993. In view of the stagnant labor-force growth, employers may finally decide to hire more females.

The total working-age population (aged fifteen to sixty-four) started to decline around 1995. However, with the increase in older workers and female workers, the growth of the labor force will turn negative only after 2010. Using our assumptions, the overall LFPR will remain around 62–63 percent.

In figuring the growth of the labor force, we must consider a possible reduction in the working hours (H). Because of the depressed economic condition, total working hours fell from 2,100 hours in the 1980s to 1,900 hours in the mid-1990s. If the forty-hour week is enforced for all firms and if more paid holidays are taken, working hours may eventually fall to the 1992 plan target of 1,800 hours. If this reduction is to be accomplished by the year 2000, $g(H)$ will must be −1 percent per year between 1995–2000.[1]

Changes in the age and sex structure of the labor force and population have supply-side and demand-side effects. On the supply side, older workers are less vigorous if not less efficient. Female workers seem to be employed in less productive ways if the experience of the last decade is a guide. On the demand

side, population aging has two discernible effects. First, it will shift personal consumption to more services (see below); second, it will reduce personal saving.

Since there will be more retired people, they will not save as much, especially as social security benefits—their major source of income—are reduced. The decline in their saving, however, will be offset to some extent by an increase in saving by younger households in preparation for their longer retirement. For the time being, the reduction in aggregate saving is more likely to come from the narrowing of the wealth gap (i.e., the gap between the wealth target and actual accumulation [Sato 1995d]).

Sectoral Allocation of the Labor Force

We next project the employment structure in the year 2010. Let us assume that $g(Y/N)$ will be 2.5 percent from 1994 to 2010.[2,3] Then the employment structure in the year 2010 can be projected with the following formula:

$$\left[(N_i/N)\, \frac{2010}{1994} \right] = \left[(Y/N)\, \frac{2010}{1994} \right]^{\eta_i - 1}$$

where η_i is the apparent income elasticity of demand for the output of sector i (Y_i).[4] The past values of η are shown in Table 1 (including the values for the United States). For our projection exercise, we have to modify the past values of η because η cannot remain constant over time.

For the primary sector, we assume that its employment share will fall from 8.2 percent in 1994 to 4.0 percent by 2010 for the following reasons. In every country, agriculture has been shrinking. Table 2 outlines the changes from 1970 to 1992. The G7's experience indicates that the primary sector's employment share is likely to fall as low as 4.0 percent. In the case of Japan, the process of convergence to the minimum may be faster because, by now, nearly 60 percent of the agricultural labor force is sixty years of age and over. As the older generation exits and the younger generation refuses to enter, the agricultural labor force is bound to fall further.[5]

The projected value of sector I's employment share assumes implicitly $\eta_1 = -0.77$. The new (η_2, η_3) must satisfy $\Sigma \eta_i \theta_i = 1$ where θ is the value-added share. From 1965 to 1994, N_2/N remained stable, implying $\eta_2 = 1$. Should η_2 remain at 1 in the projection period, N_2/N must remain at the 1994 level. The increase in N_3/N must be equal to the decrease in N_1/N. The resulting value of η_3 is 1.18. This is case (1) in Table 1. It is the case in which sector II, especially manufacturing, will remain robust at the past level.

However, there are many reasons to believe that η_3 will refuse to go down, including the reason that private consumption will turn more to services as the population ages.[6] Case (2) assumes that η_3 will remain at the same point as the past level in the projection period. As the employment share of sector III continues to expand, the employment share of sector II must contract. In case (2), sector II

Table 1

**The Apparent Income Elasticity of Demand by Sector (η)
and Projections of the Employment Structure**

Japan

Sector	η				Employment structure (%)			
	1965–94	1994–2010			1994	2010		
		(1)	(2)	(3)		(1)	(2)	(3)
I	–0.01	–0.77	–0.77	–0.77	8.2	4.0	4.0	4.0
II	1.01	1.00	0.72	0.24	37.5	37.5	33.5	27.6
III	1.35	1.18	1.35	1.57	54.3	58.5	62.5	68.4
$g(Y/N)$	5.0	2.5						

United States

Sector	η	Employment structure (%)	
	1970–92	1970	1992
I	–0.55	6.4	3.7
II	0.06	34.4	25.5
III	1.57	59.2	70.8
$g(Y/N)$	1.6		

Sources: United States: OECD, *National Accounts*, 1992; Japan: EPA, *ARNA*.

will contract but the reason will not be the economy's "hollowing-out" or deindustrialization. If manufacturing loses international competitiveness and relocates overseas, the economy will lose sector II in an accelerated manner—a situation which corresponds to the historical experience of the United States.[7] Thus, in case (3), we assume that η_3 takes the historical U.S. value.

The employment structure in 2010 is projected for these three alternative cases.[8] In my judgment, case (1) is too optimistic a scenario. Case (2) is more plausible, but we cannot rule out the possibility of case (3) if Japan follows the path of deindustrialization demonstrated in the United States.[9]

The Balance of Trade

Changes in the industrial structure and the trade structure are inseparable. One significant change in the balance-of-merchandise trade has been the steady increase in the importation of manufactured goods. Its share of total

Table 2

Agriculture[1]/ Private industry: G7, 1970–92 (in percent)

	Employment		GDP (current prices)	
	1970	1992	1970	1992
Japan	21.2	9.2	6.3	2.3
United States	5.5	3.1	3.1	1.9
Canada	—	4.7	5.2	3.0
France	15.8	7.0	7.8	3.5
Germany	9.9	3.9	3.8	1.4
Italy	21.2	11.3	9.1	3.7
United Kingdom	—	2.7[2]	3.2	2.1

Source: OECD, *National Accounts*, 1992.

Notes:
1. Agriculture, foresty, and fisheries.
2. 1991.

merchandise imports has risen significantly from the early 1980s to today. It was 22.8 percent in 1980, 31.0 percent in 1985, 50.3 percent in 1990, and 59.1 percent in 1996.

Despite this remarkable growth, it is still far below the level achieved by the other G7 countries, that is, their level is between 70 percent and 90 percent (Table 3). The high ratio in the other countries reflects the fact that their manufactured trade is mainly intra-industry, while in Japan inter-industry trade still dominates (Sato 1995e). Japan's ratio will reach levels equivalent to the other G7 countries when its manufactured trade shifts to intra-industry trade.

However, given Japan's industrial structure, this shift will occur only if the Japanese economy becomes "hollowized." Then, for manufactured goods, exports will fall and imports will rise. This was the path taken by the United States. Thus, our case (3) in the preceding subsection is likely to be accompanied by a substantial decline in the ratio between net exports and GDP.[10]

The IS Balance

Now we combine our observations in the form of the IS balance. For the household sector, we anticipate that S/Y will eventually decline because of the increase in the dependency ratio for older people. I/Y will also decline because there will be fewer people in younger households who will want to build new

Table 3

Imports of Manufactured Goods/Total Merchandise Imports (in percent)

Country	Year	Percentage
Japan	1995	59.1
United States	1993	82.7
Canada	1994	87.4
France	1991	79.1
Germany	1992	77.9
Italy	1991	72.5
United Kingdom	1994	82.0

Source: JETRO, *Nippon,* 1996, p. 71.

houses. However, the decline in S/Y will be larger than the decline in I/Y so that $(S-I)/Y$ will fall.

For the business sector, we expect that slower growth will result in reductions in both S/Y and I/Y. As a consequence, $(S-I)/Y$—which is negative—will be closer to zero.

For the government sector, based on the traditional way the Japanese government works, the national government will eventually succeed in balancing the budget once growth recovers. Then, $(S-I)/Y$ will be zero.

Altogether, the domestic surplus—the sum of the three $(S-I)/Y$—will be much reduced. The domestic surplus will turn into the country's net foreign investment (NFI).

If our prediction in the preceding subsection is correct, NX/Y will be reduced toward zero if not negative. In the external account, NX and NFI must be equated. Since both will be reduced, the exchange rate will be at the equilibrium rate (determined by the PPP of exportables). At what level $NX/Y = NFI/Y$ will equilibrate depends on how far deindustrialization proceeds. If there is no deindustrialization, as shown in Table 1, case (2), it may settle down, at say, 1 percent. However, if deindustrialization does take place, as shown in Table 1, case (3), it may turn negative.

Conventional Views in Japan

Our probable scenario can now be compared against the models that Japanese forecasters believe will likely be part of Japan's future. We divide our review into medium-term and long-term projections.

Medium-Term Projections Through the Year 2000

We will begin our analysis of medium-term projections for the late 1990s by examining the government economic plans. Let us see how national plans

Table 4

Growth Targets of National Economic Plans, 1970–95

Prime minister	Plan date	Plan period	Duration (years)	g(Y) (in percent)	
				Target	Actual
Sato	May 1970	1970–1975	6	10.60	5.1
Tanaka	February 1973	1973–1977	5	9.40	3.5
Miki	May 1976	1976–1980	5	6.40	4.5
Ohira	October 1979	1979–1985	7	5.70	3.9
Nakasone	August 1983	1983–1990	8	4.00	4.5
Takeshita	May 1988	1988–1992	5	3.75	4.0
Miyazawa	June 1992	1992–1996	5	3.50	1.3*
Murayama	December 1995	1996–2000	5	1.75–3.00	—

Sources: EPA, Keizai yoran, 1997.

performed in 1970–95 with regard to target growth rates (see Table 4).

As is well known, the national plans were ambitious in the 1960s through the mid-1970s. In the 1980s, the plan target and actual performance did not differ very much. However, the 1992 plan ended miserably. Consequently, in the latest plan, the plan makers set up two targets—if structural reforms are to be implemented successfully, $g(Y)$ will be 3 percent; if not, 1.75 percent. The plan makers may now be free from criticisms of failure, but can this be called a plan? Besides, if $g(NH)$ is –0.6 percent (that is, $g(N)$ = 0.4 percent, $g(H)$ = –1.0 percent), $g(Y/NH)$ has to be 3.6 percent with the higher target. This may be too high a target unless growth is very vigorous.

In Table 5, we assemble a few of the latest medium-term projections developed by private forecasting agencies. The $g(Y)$ ranges between 1.3 percent and 3.0 percent, with 2.5 percent roughly the median of $g(Y)$. As the assumption is made that the $g(N)$ is around 0.5 percent, then the $g(Y/N)$ is about 2.0 percent. For NX/GDP, most forecasters assume that it will fall from 2 percent to 1 percent during the late nineties. Imports are projected to grow faster than exports. Overall, private forecasters are less ambitious than the government's plan.[11]

Long-Term Projections Through the Year 2010

The apparent income elasticities of demand, implicit in the NIER projections, are given in Table 6 along with their historical values in the last ten years. Roughly

Table 5

Medium-Term Projections Mainly 1995–2000 (in percent)

Predictor[1]	$g(Y)$[2]	$g(N)$	$g(X)$	$g(M)$	NX / GDP[3]
JCER					
1994–1999	2.2	0.63	3.3	5.6	2.7 → 1.5
1995–2000	2.8	—	3.7	6.0	2.1 → 1.0
Sumitomo					
1995–2001	3.0	0.46	4.6	6.1	2.1 → 0.5
Tokai Bank					
1994–2000	1.7	—	4.1	5.4	—
Daiichi-Kangin					
1995–2000	2.4	—	6.6	10.7	1.8 → 1.0
Hokkaido Electric					
1995–2000	1.3	—	3.9	0.5	0.7 → 4.0
Japan Energy					
1994–2005	2.5	—	2.5	2.5	0.3 → 0.3

Sources: Toyo Keizai, *Keizai tokei nenkan*, 1995, pp. 30–33; 1996, pp. 34–38.

Notes:
1. Predictors (date of release):
   JCER: Japan Center for Economic Research (2/28/95 and 1996).
   Sumitomo: Sumitomo Life Insurance Institute (2/26/96).
   Tokai Bank: Tokai Bank (12/94).
   Daiichi-Kangin: Daiichi-Kangin Bank Institute (12/95).
   Hokkaido Electric: Hokkaido Electric Power Institute (12/05/95).
   Japan Energy: Japan Energy Economy Institute (12/08/95).
2. Y: GDP in constant prices.
   N: Persons engaged in production.
   X: Exports of goods and services.
   M: Imports of goods and services.
   NX/GDP: Net exports/GDP.
3. The initial value → the end value, monotonically changed over the period.

speaking, the assumed elasticities are close to the historical values observed in the late 1980s, and the employment projections seem to correspond to the ones between cases (1) and (2) of Table 1.

Two forecasting agencies, the Japan Center for Economic Research (JCER) and the National Institute of Economic Research (NIER), have both given long-term projections for the industrial/employment structure through the year 2010. They are summarized in Table 7. For the output structure, both projections report that the status quo will remain basically unchanged. For the employment structure, the NIER projections are such that sector I will decline slightly and sector III will increase slightly.

Table 6

**Apparent Income Elasticity of Demand:
Historical and Projected**

Sector	Historical		Projected		
	1984–1989	1989–1994	1994–2000	2000–2005	2005–2010
I	0.18	–2.75	0.44	0.38	0.42
II	0.88	1.03	0.94	0.71	0.69
Manufacturing	0.83	0.41	0.82	0.82	0.82
Construction	1.02	1.64	1.00	0.35	0.29
Electric, etc.	0.89	1.58	—	—	—
III	1.27	1.63	1.13	1.18	1.17

Sources: Historical: Computed from EPA, *ARNA*. Projected: Derived from NIER (see Table 7).

Note: The elasticity (η_i) is computed by:

$$\eta_i - 1 = g(N_i / N) / g(Y / N).$$

The long-term projections which are available make it clear that Japanese forecasters believe in the continuation of the status quo with few changes in any of the years through 2010. Manufacturing industries, especially general machinery and electronics (the current leading industries), will continue to be robust and will be providing for Japan's merchandise exports. This may be so, but as we have observed, we cannot wholly rule out the possibility of Japan's deindustrialization, as shown in the figures for case (3) of Table 1.

Notes

1. We assume that there will be no change in Japan's tough immigration policy—at least in the near future.

2. This growth rate is within the range assumed by most long-term projections (Table 7 (1) and (2) below).

3. The Industrial Structure Council of the MITI made public its super-long-term projection up to year 2025 (9/18/1996). It assumes $g(Y)$ to be 3.1% (1995–2000), 1.9–2.4% (2000–2010), and 0.8–1.7% (2010–2025). If $g(N)$ is 0.4%, 0.1%, and -0.4%, respectively (Table 9), the higher estimate of $g(Y/N)$ is 2.0–2.5%.

4. Case (3) is derived from the sector output demand function:

$$Y_i / N = A_i (Y / N)^{\eta_i} (P_i / P)^{-\varepsilon}, \quad i = 1, 2, 3$$

(3a)

Table 7

**Long-Term Projections of the
Industrial/Employment Structure** (in percent)

(1) NIER

Sector		Output (Y)			
		1994	2000	2005	2010
I		2.2	1.8	1.6	1.4
II		33.5	34.8	34.2	33.3
	Manufacturing	26.2	27.2	27.4	28.3
	Construction	7.3	7.6	6.3	5.0
III		64.3	63.4	63.4	65.3
Total		100.0	100.0	100.0	100.0
$g(Y)$			2.7	2.6	2.4

Sector		Employment (N)			
		1994	2000	2005	2010
I		5.8	5.3	4.9	4.5
II		30.7	30.0	28.9	27.7
	Manufacturing	23.2	22.5	21.9	21.4
	Construction	7.5	7.6	7.0	6.3
III		63.5	64.7	66.2	67.8
Total		100.0	100.0	100.0	100.0
LFPR		61.4	60.7	60.4	59.7
$g(N)$			0.3	0.08	−0.4

Sector		$g(Y/N)$		
		1994–2000	2000–2005	2005–2010
I		0.3	1.5	2.0
II		3.4	2.9	3.2
	Manufacturing	3.6	3.5	3.8
	Construction	3.0	0.4	0.5
III		1.8	2.4	2.6
Total		2.4	2.5	2.8

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Table 7 (continued)

(2) JCER

Sector	Output (Y) 1990	Output (Y) 2000	Output (Y) 2010
I	2.2	2.0	1.8
II	43.5	44.1	44.0
Manufacturing	34.2	33.9	33.6
Light	15.9	14.8	13.6
Heavy	18.3	19.1	20.0
Construction	9.3	10.2	10.4
III	54.3	53.9	54.2
Total	100.0	100.0	100.0
$g(Y)$		2.3	3.3

Sources:

(1) NIER: National Institute of Economic Research, *Choki keizai yosoku* [Long-Term Economic Projections], March 1996, as quoted in Toyo Keizai, *Keizai tokei nenkan*, 1996, p. 36.

(2) JCER: Japan Center for Economic Research, "2010-Nen: Nihon Kabushiki Kaisha no Kessansho" [Year 2010: The Income Statement of Japan, Inc.], February 1994, as quoted in Toyo Keizai, ibid., 1994, p. 30.

Notes:

NIER: Sector I is agriculture, forestry, and fisheries, sector II is manufacturing (total) and construction, and sector III consists of environment, distribution, information, leisure, and living.

JCER: Sector I is the primary industries, sector II is manufacturing and construction (light is basic materials industry—iron and steel, chemicals, cement, and paper-pulp; heavy is processing and assembly industry—consumer electric machinery, electronics, and automobiles), and sector III is living-related, services, and others.

where:

Y_i=the real GDP for sector i

Y=the real GDP for private industry

N=employment in private industry,

P_i=GDP deflator for sector i

P=GDP deflator for private industry

η_i=true income elasticity of demand for the output of sector i

ε=price elasticity of demand for the output of sector i

(common to all sectors)

There is an identity $\Sigma \eta_i \theta_i \equiv 1$ where $\theta_i = P_i Y_i / PY$. It must be noted that η_i does not remain constant as the income level changes.

By transforming (3a), we obtain:

$$N_i / N = A_i (Y/N)^{\eta-1} (P_i/P)^{-\varepsilon} \left(\frac{Y_i/N_i}{Y/N} \right)^{-1}.$$

(3b)

Suppose that prices are set in proportion to the average wage cost, i.e.:

$$P_i = m_i W_i N_i / Y_i, \quad P = mWN/Y$$

(3c)

where W is the money wage rates and m is the markup ratio. Then:

$$P_i / P = \left(\frac{m_i W_i}{mW} \right) \left(\frac{N_i / Y_i}{N/Y} \right).$$

(3d)

Since the money wage rates are likely to change at similar rates across sectors, we can assume that $m_i W_i / mW$ will be constant over time. Then the last two terms of (3b) is in proportion to $(P_i / P)^{1-\varepsilon}$.

Similarly, let:

$$P_i / P = D_i (Y/N)^{d-1}, \quad \Sigma d_i \theta_i \equiv 1$$

(3e)

(neglecting the autonomous shift to which D_i is subject). Then, we find that:

$$\text{apparent } \eta_i \text{ in (3)} = \text{true } \eta_i \text{ in (3b)} + (1 - \varepsilon)(d_i - 1).$$

(4)

5. In the agricultural labor force, farmers aged sixty and over increased as follows: 27 percent (1970), 32 percent (1975), 36 percent (1980), 43 percent (1985), 51 percent (1990), 59 percent (1994), (*JSYB*, 1996, Table 6–5). In 1994, 64 percent of the younger farmers were female. This corresponds to the fact that full-time farms are now very few in number (16.1 percent in 1994) and part-time farms mainly working outside agriculture are the main type (70.0 percent in 1994). For farmers' children, those who remain on farms after graduating from school are few (falling from 3.2 percent in 1975 to 1.3 percent in 1994).

6. See Appendix II.

7. Our sector-output demand equation (3a) is incomplete because it ignores the effects of foreign trade. When deindustrialization takes place, it apparently lowers η_2 and raises η_3. This is why apparent levels of η are so different between the United States and Japan.

8. When we project N_i / N, we implicitly project Y_i / Y and P_i / P as well. As we observed, Y/N is a composite sum of Y_i / N_i, and Y_i / N_i is a function of Y/N. In the projection period, I is nearly negligible and Y/N can be considered as a weighted sum of Y_2 / N_2 and Y_3 / N_3. Employing equation (1) and using the value-added shares of 1994, we derive $g(Y_2 / N2) = 3.0$ percent and $g(Y_3 / N_3) = 2.1$ percent for a weighted sum of $g(Y/N) = 2.5$ percent. Assuming that $g(P_3 / P_2) = g(Y_2 / N_2) - g(Y_3 / N_3) = 0.9$ percent, we can project Y_i / Y and P_i / P.

9. It is unrealistic to assume that $g(Y/N)$ remains unchanged in these three cases. As deindustrialization proceeds, as in case (3), $g(Y_2 / N_2)$ will be lower and, if the past relation (1) continues to hold, $g(Y_3 / N_3)$ will also decline. Then, $g(Y/N)$ has to be lower. We neglect this important point in Table 1 in the section.

Baumol et al. (1989) propose the convergence hypothesis, that is, that productivity growth of late-coming countries will eventually converge at the rate of productivity growth in the United States, which has been around 1 percent (see Table 11 in the previous section). Sectoral data show that labor productivity growth in the United States was 1.1 percent (overall), 0.7 percent (sector I), 1.8 percent (sector II), and 0.6 percent (sector III) between 1970–85 (OECD, *National Accounts*).

10. Japanese factories which relocate overseas export their products to the home market. This "boomerang" effect has already begun, though not yet to the extent of the United States.

11. For the LFPR, Sumitomo assumes that it will fall from 63.5 percent in 1995 to 63.0 percent in 2000. For the unemployment rate, Sumitomo assumes 3.2 percent → 3.4 percent, Hokkaido Electric 3.6 percent → 6.0 percent, JCER 2.9 percent → 2.4 percent (1994 Report) and 3.2 percent → 2.1 percent (1996 Report). For *H*, Daiichi-Kangin assumes the number of hours worked will declime from 1,899 hours in 1995 to 1,856 hours in 2001.

Systemic Change

The Need for a Systemic Change

The previous section considers the Japanese economy in the next decade and a half in purely quantitative terms. However, as we discussed in section entitled "Japanese-Style Capitalism," there have been many profound economic changes in Japan. Along with population aging, later marriages, and fewer children, the family system is in the process of transformation and the lifetime employment system is on the verge of demise. When the principle of collective utility maximization—which we argued is the guiding principle of Japanese-style capitalism—is finally eroded, can the system itself remain intact?

When parts of an economic system change, the system itself must adapt to these changes by altering other parts of the system as well. This process of piecemeal adjustments may be able to maintain the system, but there is a limit to this sort of partial adaptation. When individual changes go beyond certain thresholds, the system can no longer cope with them and may self-destruct in a manner which is similar to the disintegration of Soviet communism. What about Japanese-style capitalism? Will the triad be able to continue its rule over the Japanese economy?

If Japan is to remain viable in the new era, there must be a systemic change as fundamental and momentous as the 1868 Meiji Restoration and the 1945 postwar reform. However, the current change must come from internal sources and in peaceful conditions. This will certainly be very difficult to achieve.

There is a consensus in Japan that Japan needs a large change if Japan is to survive in the new environment. Much has been written lately on Japan's needs for reform and restructuring (e.g., Noguchi 1993; Kosai 1995). Nonetheless, they do not advocate any large-scale systemic change, despite people's increasing "distrust in the establishment which bears responsibility for national policy" (Kosai, p. 3). The government's decision to enforce deregulation in recent years is its attempt at piecemeal adjustments of the economic system.

In a recent speech, Yoshio Suzuki (1996), chief counselor of the Nomura Research Institute, argues that Japan's top-down system must and will change and that this systemic change is comparable to the 1868 and 1945 reforms. Despite these assertions, Suzuki seems to believe that this systemic change will come about without much friction.[1]

In his many writings on Japan's corporate capitalism (e.g., 1994, 1995),

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Okumura discusses the possible demise of the triad. According to him, this outcome will happen because the big-business system will disintegrate. He thought that the mass production undertaken by Japan's big businesses is now at a dead end, and controlling a multitude of affiliated firms in *keiretsu* groups is becoming difficult. The collapse of the stock prices in the early 1990s would force big businesses to dispose of their holdings of the equities of other firms. Big businesses will be on the decline.

Unfortunately for Okumura, the *keiretsu* groups seem to have adapted to the new environment (as we already noted) by shifting the center of their business activities from production to finance. Statistics do not show that interlocking share ownership has declined.[2] While households continue to be successfully excluded from corporate management, it is difficult to imagine that big businesses will disintegrate.

The Present Economic Structure
Against a Spontaneous Systemic Change

To change an economic system in a peaceful manner, by its own nature, is almost impossible. Those who have vested interests in the current system will adamantly oppose any threat to the status quo. In the case of Japan, the triad which has ruled Japan for so long has a vital stake in keeping Japanese-style capitalism in its present form as long as possible. Though circumstances have been changing, the triad is still intact.

In politics, though national politics is still in a state of flux, the LDP has once again returned to power and seems to be in a fairly secure position. Elite bureaucracy is still robust and strong despite recurring disclosures of scandals. The *keiretsu* groups have successfully diversified into the financial sector which is currently Japan's growth sector.

As long as households continue to save in the form of money, banking and insurances will continue to grow faster than the nominal GDP, and the *keiretsu* groups will grow even faster. Since big businesses have found a way to exclude individuals from share ownership, Japanese-style capitalism is not "of the people, by the people, and for the people," but "of the triad, by the triad, and for the triad." Under these conditions, a large systemic change is only a remote possibility.

Why are the masses content when power is monopolized by the triad? The answer is found in the high degree of equality for the distributions of both income and wealth among individuals. An important contribution of the Postwar Reform was to make the size distribution of income among households highly equal. The Gini coefficient fell from 0.55 or so (1940) to around 0.35 (1962–1990) (Minami 1996).

Japanese households have a strong penchant for home ownership, with the

Table 1

Income and Wealth Inequality,[1] Japan and the United States

	top Y^{2} median W (multiple)	top W^{2} median Y (multiple)	Shares of highest income class (percent)		
			Number	Y	W
Japan 1995	3.4	2.5[3]	6.1	17.2	11.7[3]
United States 1992	4.0	10.9	7.3	25.0[4]	43.9

Sources: Japan: Prime Minister's Office, *Family Saving Survey*, 1995, all households; United States: *SABUS*, 1995, Table 757.

Notes:

1. The highest income class is households with income above ¥15 mn (Japan) and $0.1 mn (U.S.).
2. The average of the highest income class; Y = income, W = net worth.
3. Financial.
4. Crude estimate.

level being around 60 percent (59.5 percent in 1993, *Housing Survey*)—nearly as high as U.S. home ownership (64.7 percent in 1993, *SABUS* 1995, Table 1225). After dwellings and land, Japanese households keep financial savings mostly in the form of monetary assets (65.4 percent in 1970, 66.9 percent in 1980, 55.2 percent in 1990, and 62.9 percent in 1995, EPA, *ARNA*). U.S. households keep only 15 percent of financial assets in the form of money (*SABUS* 1996, Table 770.) Because financial assets are mostly of the fixed-price type, they do not appreciate with inflation. Consequently, the financial-asset distribution is even more equal than the income distribution. By contrast, the United States has highly unequal income and wealth distributions among households. Table 1 compares these distributions in the United States and Japan.

The high degree of distributional equity leads Japanese households to believe that they are all middle-class. The government's public opinion survey never fails to demonstrate this consensus. The latest one is reported in Table 2. This situation has led some Japanese social scientists to argue that Japan has been in the "era of the new middle class" (e.g., Murakami 1984). Obviously, when people consider themselves to be middle-class, they are reasonably content with the status quo and find no reason to rock the boat. Politically, they have become increasingly conservative—as their voting records reveal. This is why the LDP has recaptured its ruling position.

However, distributional equity, of which Japan is so proud, is close to an

Table 2

Self-Perception of the Class Status by Japanese Households, July 1996
(in percent)

Upper class	0.4
Middle class	91.2
Upper	10.8
Middle	57.4
Lowe	23.0
Lower class	5.2
Don't know	3.1

Source: Jetro, *Nippon 1997*, 146.

illusion when we look at the household sector within the private domestic economy. Table 3 shows the asset distribution among individual sectors of the private domestic economy in 1995. For the household sector, the most important assets (in descending order) are land, money, life insurance equities[3] and dwellings. These account for more than 90 percent of the household asset balance.

None of these assets empower households to participate in corporate management. For that objective, households must own corporate bonds and corporate equities. Households own only 2 percent of industrial bonds[4] and 26 percent of corporate equities (1995). This means that large corporations are their own masters and their executives can run them as they wish with almost no intervention from the outside. This is Japanese-style capitalism par excellence.

Under these circumstances, the triad will be able to keep its firm grip over Japan, provided that households continue to be content with their "exploitation"—and there is no evidence to the contrary. Nonetheless, as financial deepening continues, the economy will exhibit signs of internal contradictions.

If the monetary authorities of Japan do not change their traditional response to the internal-external balance, the mismanaged monetary policy will give rise to another round of a bubble. The next bubble will be far worse than the last one, and when it collapses, it will transmit shock waves throughout the entire economy. This is the systemic risk that Japan has to face. Then, a systemic change will be forced on Japan—but the cost might be as enormous as the Great Depression of the 1930s.

Notes

1. Suzuki believes that cross-firm share ownership and the main banking system will continue in a modified form.

Table 3
The asset distribution by sector, private economy, 1995, percent

	Private economy, total = 100				Total assets = 100				
	FIS	NFCs	NPOs	HHS	All	FIS	NFCs	NPOs	HHS
Total assets	30.3	28.4	1.5	40.0	100.0	100.0	100.0	100.0	100.0
Net fixed assets	2.5	63.0	4.1	30.5	13.1	1.1	29.0	36.8	10.0
Inventory	—	88.4	—	11.6	1.2	—	3.8	—	0.4
Land	3.0	29.0	1.0	67.0	26.8	2.7	27.4	18.6	44.9
Financial assets	49.5	19.2	1.1	30.1	58.9	96.2	39.8	44.6	44.4
Money	0.4	22.2	3.0	74.5	14.5	0.2	11.3	29.9	27.0
Bonds	85.4	4.3	0.9	9.4	7.7	21.8	1.2	4.9	1.8
Corporate equities	37.6	36.5	0.1	25.8	7.1	8.8	9.1	0.4	4.6
Life insurance	—	—	—	100.0	4.0	—	—	—	10.1
Bank loans	99.1	—	0.9	—	11.4	37.2	—	7.3	—
Trade credits	51.6	48.2	0.2	—	8.9	15.2	15.1	1.4	—
Others	76.6	16.6	0.2	6.5	5.2	13.1	3.0	0.8	0.8

Source: EPA, *ARNA*, 1997.
FIS , financial institutions
NFCs , nonfinancial corporations
NPOs , nonprofit organizations
HHS , households

2. Corporate equity ownership was as follows:

	1989/03	1996/03
Financial institutions	37.6	40.2
Nonfinancial corporations	35.8	35.0
Households	26.7	24.9

Source: BOJ, *ESA*, 1996; Table 92.

3. Though insurance policyholders are "shareholders" of life insurance companies, the overall operation of life insurance companies is at the discretion of management.

4. Of long-term bonds, households own 7.9 percent of government bonds (central, local, and public corporations), 2.3 percent of industrial bonds, and 11.5 percent of bank debentures (as of March 1996, EPA, *ARNA.*)

Concluding Remarks

The postwar reform was intended to democratize Japan, but it failed to change Japan's top-down system. The triad of national politics, elite bureaucracy, and big business has become too well entrenched. However, many circumstances are changing and will continue to change, including population aging, growth slow-down, deindustrialization, the breakup of the three-generation family, the demise of the lifetime employment system, and so on.

When parts of a whole system are changed, the system itself must be modified significantly for its own survival. Can Japanese-style capitalism remain intact under changing conditions? At the moment, the triad seems to be as powerful as ever. The LDP has regained its control of the government, elite bureaucracy remains strong despite recurring scandals, and the *keiretsu* groups have successfully diversified into the financial field.

Japan will be increasingly financialized. With the primary sector on the verge of disappearance, the tertiary sector will continue its expansion. The secondary sector is likely to be finally shrinking. The pace of its contraction will be accelerated if Japan loses international competitiveness in manufacturing with Japanese factories relocating overseas in search of cheaper production costs. With increased imports by manufacturers, Japan's trade balance will move from a surplus to a deficit. At the same time, population aging with reduce household savings, resulting in a decline in the domestic surplus.

All this means that the Japanese economy will find itself in a new era. Yet the ruling mechanism of the economy will remain unchanged. A highly financialized economy must face the possibility of systemic risk such as a bubble of even greater magnitude than the last one. In the final analysis, there is no denying that Japan's economic future is uncertain. This is why Japan is now at a crossroads.

Appendix I

Collective Utility Maximization

This appendix presents a formal (heuristic) model of two players. Each player has a fixed endowment $\bar{Z}_i$ ($i = 1, 2$) which he can consume by himself, but he can increase his utility if he can get a favor Z_j from the other player ($i \neq j$). However, the other player wants to receive something back in the form of a favor Z_i. The i-th player gives a part of his endowment for Z_i. Obviously, each player is in a trade-off position with respect to (Z_1, Z_2).

Since "favors" are nonmarketable goods, there is no open market that determines the exchange rate between the two favors. However, the optimization principle asserts that the marginal rate of substitution (*MRS*) between the two favors—which each player calculates within his own utility function—must be equated between the two players if the exchange is to be "fair."

The trouble is that there is an infinite number of mixes for the position (Z_1, Z_2) which satisfies the optimization condition. If there is an open market, the matter is settled simply by the market. With no open market, bilateral negotiations ensue. The outcome of the negotiations greatly depends on the relative "power" of the two players.

This much is common sense. However, as a good economist, we must make it look more unintelligible. This is the principle of collective utility maximization.

Let each player's utility function be represented by:

$$\begin{cases} U_1 = U_1(\bar{Z}_1 - Z_1, \, Z_2), \, U_{11}, \, U_{12} > 0, \\ U_2 = U_2(\bar{Z}_1 - Z_2, \, Z_1), \, U_{21}, \, U_{22} > 0. \end{cases}$$

Needless to say, we assume that all the values for Z are quantifiable. The utility functions satisfy the usual convexity property.

Each player wants to maximize his utility. Player 1 wants to have $Z_1 = 0$ and Z_2 as high as possible. Likewise, player 2 wants to have $Z_2 = 0$ and Z_1 as high as possible. Clearly this is impossible to achieve. It, however, is obvious to the players that they each can improve their respective utilities if they agree about give-and-take.

The question is how much to give and how much to take. The players must negotiate. This negotiation is embodied in the collective utility function of the two players:

$$U = F(U_1, U_2), \; F_1, \; F_2 > 0.$$

Collectively, the players want to maximize U. The instruments are (Z_1, Z_2). The first-order condition is given by:

$$U_{11} = fU_{22},$$
$$U_{12} = fU_{21}.$$

where $f = F_2 / F_1$. The condition can be rewritten in the form of:

$$MRS \, (dZ_2 / dZ_1) = U_{11} / U_{12} = U_{22} / U_{21}.$$

As we noted, the collective utility maximization requires that the *MRS* be equated between the two players. The *MRS* is nothing but the shadow price (in relative terms). However, there are an infinite number of combinations for (Z_1, Z_2) which meet this condition. One combination must be chosen by the two players. This is where the collective utility function enters the picture. The choice depends on the size of f, which is the *MRS* within the collective utility function. Thus f depends on the relative power of the two players.[1]

Up to this point we have worked with the assumption that there is an internal solution. There may not be $f = 0$ or ∞, that is, if $F_1 = 0$ or $F_2 = 0$. In this case, there is no mutually satisfactory solution. This is the case if one player is willing and the other is not. Then, we have $(Z_1, Z_2) = 0$. Considering the heavy cost of transactions, this outcome must hold when F_1 or F_2 are sufficiently close to 0 (in relation to cost). When the LDP ceased to be the ruling party, political contributions to the LDP by big businesses fell considerably for an obvious reason.

Although, so far, we have limited ourselves to a two-player game, we can extend it to a three-player game. The only difference is that the formal analysis becomes more cumbersome because now there are six favors instead of two. However, the principle is unchanged.

In real situations, "favors" are more qualitative than quantitative. Surely, for politicians, favors are political contributions which can be counted in monetary terms. However, the return which the businesses receive, for example, might be an exemption from a regulation. Needless to say, that may be translated into money terms. For bureaucrats, they give favors to businesses and expect to be repaid by their future appointments with businesses. That again can be stated in pecuniary terms. However, the time dimensions involved in such exchanges may differ from one player to another. The simple, one-period utility analysis is given merely for an illustration.

Note

1. Let us give some concrete form to the utility function. Let the form of *CES* be:

Figure A–1

The Values of MRD for a Given $Z_1 > 0$

$$\begin{cases} U_1^a = (\bar{Z}_1 - Z_1)^a + A_1 Z_2^a, \\ U_2^a = (\bar{Z}_2 - Z_2)^a + A_2 Z_1^a, \\ U^b = U_1^b + BU_2^b \end{cases}$$

where $a < 1$, $b < 1$, and A and B are non-negative. The *MRS* is derived as follows:

$$\frac{dZ_2}{dZ_1} = \begin{cases} \dfrac{1}{A_1}\left(\dfrac{\bar{Z}_1 - Z_1}{Z_2}\right)^{a-1} & \text{for Player 1,} \\[2em] A_2\left(\dfrac{Z_1}{\bar{Z}_2 - Z_2}\right)^{a-1} & \text{for Player 2.} \end{cases}$$

The *MRS* is illustrated in Figure A–1. One Z_2 corresponds to one Z_1 when the marginal rates of substitution are equated.

The trade-off locus of (Z_1, Z_2) is illustrated in Figure A–2. It is represented by:

$$\left(\frac{\bar{Z}_1}{Z_1} - 1\right)\left(\frac{\bar{Z}_2}{Z_2} - 1\right) = (A_1 A_2)^{1/(a-1)}.$$

The locus moves inward as $(A_1 A_2)$ is reduced. In the limit, for $A_1 A_2 = 0$, the locus coincides with the two axes. It is obvious that the optimal point in this case is the origin (i.e., the no-trade point). Thus, the size of $(A_1 A_2)$ represents the willingness by the two players to give and take. As we move down the locus, dZ_2 / dZ_1 or the relative shadow

Figure A–2

The Locus of (Z_1, Z_2) When the Values of *MRS* are Equated

Z_2

$\bar{Z}_2$

– – –

(A_1A_2) is reduced

U^{max}

Z_1

$\bar{Z}_1$
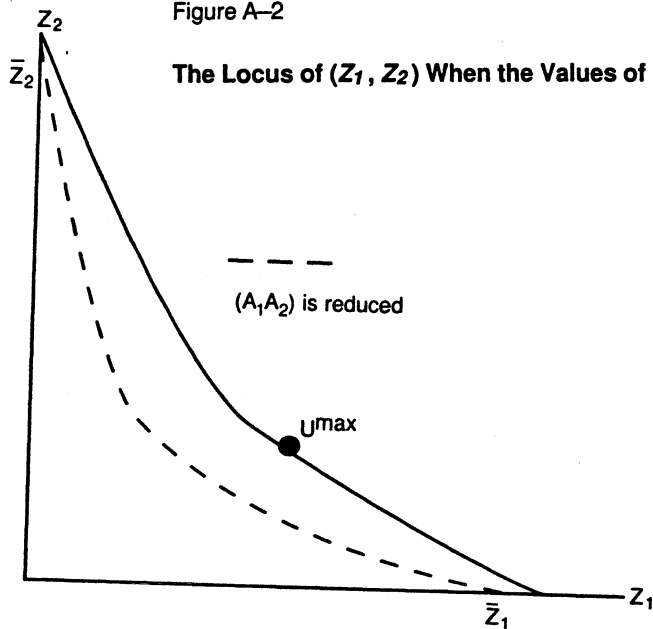
price of favors changes from ∞ to 0. Which point on the locus will be chosen depends on the collective utility function. Note that $U_1 = 0$ at ($\bar{Z}_1$, 0), and $U_2 = 0$ at (0,$\bar{Z}_2$). Then, the value of U will be maximized at some internal point. The location of this point depends on the size of B, making B the indicator of the relative power of the two players. When player 2 dominates player 1, the value of B is higher, and the U^{max} point shifts more to the right on the locus. The value of dZ_2 / dZ_1 then declines.

Appendix II

Private Consumption and Income Elasticities of Demand

In our projection exercise of the employment structure, the size of the apparent income elasticities of demand, especially η_3, is of critical importance. Will population aging shift sectoral demands more to services? If so, η_3 ought to be as high as the value assumed for case (3) of Table 1 in the "Quo Vadis?" section.

We can formulate a better estimate by looking at the makeup of personal consumption available in the *Family Income and Expenditure Survey*. This survey gives cross-sectional data classified by the age of the head of the household. Personal consumption is 60 percent of final demand (GDP) so that the head of the household's apparent income elasticities of demand ought to be a good guide to the sectoral elasticities.

Model

Suppose that we divide total personal consumption (C) according to our three-sector classification. Then, the per-household consumption demand function is:

$$C_i = A_i C^{\eta_i}(P_i/P)^{-\varepsilon}, \ i = 1, 2, 3.$$

We then have:

$$P_i C_i/PC = A_i C^{\eta_i-1}(P_i/P)^{1-\varepsilon}.$$

With cross-section data, we disregard the relative-price term. With time-series data, assume that:

$$P_i/P = B_i C^{d_i},$$

then,

$$P_i C_i/PC = (A_i B_i^{1-\varepsilon})C^{\eta_i-1+d_i(1-\varepsilon)}.$$

These are our estimating equations.

Data

Accepting the classificatory scheme of the *Family Income and Expenditure Survey*, we have sector I (foods), sector II (nonfood goods including housing services), and sector III (services). The information in Table A–1 presents statistics showing the time-series data (1955–1995) and the cross-section data (1995).

Time-Series Elasticities

The apparent income elasticities of demand are estimated as shown in Table A–2. Note that the 1975–95 values are closer to our Case (3) of Table 1 in the "Quo Vadis?" section.

Cross-Section Elasticities

The cross-section data of Table A–1, Part B reveals that sector I is more or less stable through all the age ranges, sector II falls. Sector III rises until the age of 50–54 while income roughly doubles. The apparent income elasticities of demand before age 50–54 are roughly $\eta_1 = 1.0$, $\eta_2 = 0.05$, and $\eta_3 = 1.6$.

Above age 50–54, the sectoral shares are stable while income declines as a person becomes older. This means that the income effect and the age effect cancel out each other when a person is older. From this it follows that, with income fixed, the aging of the population will push the share of sector II downward and the share of sector III upward. Then, in time-series data, this factor will keep η_3 high and η_2 low. Therefore, case (3) of Table 1 in the "Quo Vadis?" section becomes more likely.

Table A–1

**Composition of Worker Household
Consumption Expenditure** (in percent)

(A) Time-series Data

	Sector			
Year	I	II	III	C
1955	44.5	20.5	35.0	39.4
1965	36.2	25.8	48.0	53.9
1975	30.0	24.0	46.0	84.6
1985	25.7	21.8	52.5	93.2

(B) Cross-section Data, 1995

	Sector			
Household head age	I	II	III	C
24 and under	23.6	34.3	42.1	63.0
25–29	20.1	30.4	49.5	75.3
30–34	21.5	27.2	51.3	82.1
35–39	23.7	23.7	52.6	90.3
40–44	24.6	21.7	53.7	102.0
45–49	22.3	19.9	57.8	116.7
50–54	21.2	19.3	59.5	115.1
55–59	22.1	21.9	56.0	100.7
60–64	23.0	21.8	55.2	93.8
65 and over	23.5	17.8	58.7	87.8

Source: Prime Minister's Office, *Family Income and Expenditure Survey.*

Notes:
Sectors:
   I: Foods.
   II: Housing, light-heat-water, furniture and household equipment, and clothing and footwear.
   III: insurance and medical care, transportation and communications, education, culture and entertainment, and others.
   C: Consumption expenditure per household in 1990 prices (GDP deflator for household consumption).

Table A–2

**Apparent Income Elasticities of Demand,
Personal Consumption, and Time-Series**

	1955–75	1975–95
η_1	0.48	–0.70
η_2	1.21	0.48
η_3	1.36	2.11

Source: Table A–1, Part A.

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1

Japan at a Crossroads

Kazuo Sato

Introduction

The celebrated quote from a Japanese classic, *Heike Monogatari*, laments the impermanence of the mighty. The prosperous is destined to fall. This old Japanese saying is more apt to the present Japan. For four successive years (1992–95), the Japanese economy stagnated with near zero per capita growth.

This is an entirely new experience for Japan since the end of World War II. Even when Japan entered the slow growth period in the mid-1970s, the growth rate has never been so low for such a long time as in the early 1990s. Not only has the production sector been depressed, but the financial sector has also shown signs of unraveling. Banks and nonbanks are now saddled with huge amounts of "nonperforming" or bad loans—an inevitable consequence of overextended bank credit in the bubble period of the late 1980s.

The objective of these journal articles is to take stock of economic changes that have culminated in the poor economic state of the early 1990s, and then to conjecture on the direction that the Japanese economy is likely to take from this time forward. As many experts now agree, various indications point to the possibility of a systemic change in the Japanese economy. Whether Japan will be able to cope with it or not will determine the future of Japan.

The next article gives a bird's-eye view of the Japanese economy by tracing its historical evolution since the Meiji Restoration (1868). The third article considers Japan's contemporary economic system—which we call Japanese-style capitalism. The fourth article gives an extensive review of recent economic changes in Japan, both on the micro and macro levels. The fifth article speculates on where the Japanese economy will move from here. The sixth and seventh arti-

cles, respectively, consider the possibility of systemic change and concludes the journal.[1]

Note

1. Major statistical sources are abbreviated as follows:
BOJ-*ESA*, Bank of Japan, *Economic Statistics Annual*
EPA-*ARNA*, Economic Planning Agency, *Annual Report on National Accounts*
JSYB, *Japan Statistical Yearbook* (Prime Minister's Office)
ERP, *Economic Report of the President* (United States)
SABUS, *Statistical Abstract of the United States* (Department of Commerce).

Historical Evolution

Chronological Overview

Let us first present a broad overview of the evolution of the Japanese economy since the Meiji Restoration (1868), the start of Japan's take-off. Over more than a century, there were two historical landmarks that signify major transformations in Japan's economic system. The first was the Meiji Restoration, which replaced feudalism with capitalism. The second was Japan's defeat in World War II (1945). This brought Japan's militarism to a forced end, and a new, democratic society and economy were created under American tutelage. With these two landmarks, we divide the entire period into several subperiods, each of which is briefly described below.

1. *1868–1918.* The decentralized *bakuhan* system in the feudal Tokugawa era was replaced by a centralized bureaucratic system in which the central government controlled the entire country. The central government was dominated by those erstwhile radical samurais—the same people who had helped to topple the Tokugawa government. This was the period of autocracy. Although the Constitution was adopted and the National Diet was opened in 1889, the absolute monarchy ruled the country from above. The actual ruling was entrusted to the bureaucracy–military in this period. Following the pattern of Western imperialism, Japan expanded its territory by means of wars.[1]

2. *1918–1931.* The public's demand for political participation started to intensify about the time of the turn of the century. Nonetheless, the autocratic government hung onto power. However, one after another, the leaders of the Meiji Restoration were dying. Finally, in 1918, the autocratic government were no longer able to cope with the political unrest (rice riots), and the reins of the government were handed over to political parties. Prime ministers were elected in the Diet. Parliamentary democracy seemed to be established in Japan. The military assumed a low posture as the demand for disarmament prevailed all over the world. Unfortunately, the national politics were unstable. Prime ministers changed at frequent intervals with eleven cabinets in thirteen years. The 1920s were a decade of economic confusion, and the disturbed economy did not help political stability. The Great Depression ended this subperiod.

3. *1931–1945.* The Great Depression, which first started in the United States, was imported into Japan as the raw silk market bottomed out in New York. The

farm sector was particularly hard hit as farm prices fell precipitously. However, the nonfarm sector was spared as far as employment and production levels were concerned.

The Cabinet in place was a firm believer in classical economics and engineered Japan's return to the gold standard system starting at the beginning of 1930. Anticipating the eventual devaluation of the yen, capital flew out of the country. The resulting contraction of the money supply worsened the deflation.

After the change of the government which occurred in December 1931, Finance Minister Korekiyo Takahashi took the Keynesian policy measures of large-scale deficit spending and the devaluation of the yen. The policy succeeded and the economy was reflated. Unfortunately, once begun, the deficit spending policy could not be stopped because the army—which started the Manchurian Incident in September 1931—demanded the continuation of increased military spending. The military wanted to regain its glory. The army's success escalated into a war with China (July 1937) and finally into the Pacific War (December 1941). After an initial success, the war ended in August 1945 with Japan's unconditional surrender.

Japan's big businesses, *zaibatsu*, strengthened their foothold in the Japanese economy during World War I. In the depressed 1920s, the big businesses diversified into heavy industry. Then, in the 1930s, they prospered when the economy was under the influence of wartime conditions. When Japan expanded during World War II, *zaibatsu* grew as well.

4. *1945–1959.* Japan was occupied by the Allied (U.S.) forces for six years. The U.S. government wanted to remake Japan in its ideal image of a democracy. The Japanese military was disbanded, a new Constitution was adopted, *zaibatsu* families were ordered to give up their holdings of *zaibatsu* firms, *zaibatsu* firms themselves were divided into smaller units, women were given equal rights with men, and workers were encouraged to organize unions. This was the second overhaul of the entire system of Japan. After the devastations of World War II, production was reduced to the minimum and inflation raged.

However, by 1952, when the Occupation ended, production was restored to the peak prewar level and inflation was under control. The rest of the 1950s signaled a return to normalcy. Economic growth was high, and people started to rebuild their financial wealth. By the end of the 1950s, Japan fully recouped the losses caused by the war. It was generally believed that Japan had reached a turning point and would return to the prewar growth rate of 3 percent.

5. *1960–1974.* The subsequent growth of the economy exceeded everybody's expectations. Throughout the decade of the 1960s, the growth rate, on average, stayed above 10 percent. This rapid growth resulted in a complete transformation of the Japanese economy. Though growth started to slow down in the early 1970s, it stayed relatively high until Japan was finally hit by the first oil shock toward the end of 1973. In 1974, for the first time, the growth rate turned

negative (–1 percent). A feature of this subperiod was a shift from an agrarian economy to an industrial economy, which involved a mass transfer of the farm population to urban areas. A serious bubble in the stock and land markets also occurred in the early 1970s—an indication of financial instability.

6. *1975–1990*. This was a period of slow growth in which the growth rate permanently fell to the level of 5 percent per annum. In the meantime, the inflation rate was steadily falling: 6.9 percent in 1975–79, 3.1 percent in 1980–84, and 1.3 percent in 1985–89.

By the early 1980s the economy was relatively depressed (with a long recession that lasted thirty-six months, February 1980 to February 1983) and the average growth rate was 2.9 percent. However, the economy recovered in the last half of the 1980s. The upswing was the second longest one in the postwar period, lasting fifty-one months from November 1986 to February 1991. This boom was remarkable not because of the high growth rate (5.0 percent), but because of strong asset inflation. The stock market bubble collapsed in December 1989 and the urban land market bubble crumbled sometime later in the fall of 1990.[2]

7. *1991–present*. The Heisei Recession started in February 1991 and ended in October 1993. This second longest postwar recession was also notable because economic growth did not recover after the recession ended. Between 1992 and 1995, the growth rate was below 1 percent (1.0 percent, 0.1 percent, 0.4 percent, and 0.8 percent, respectively). The early 1990s were a very much depressed half decade in both real and financial terms. The stock market as well as the urban land market both continued to be depressed.[3] Banks were saddled with a large number of nonperforming loans. Though the Bank of Japan relaxed monetary policy (the discount rate fell to the all-time low of 0.5 percent in September 1995), and the national government renewed deficit spending in 1993–96, the economy has remained sluggish.

Fifteen-Year Cycles

History may not repeat itself. However, we may still try to make sense out of our review of Japan's historical evolution.

The reader may have noted that the period from 1918 to 1990 is divided into five subperiods, each running, on average, for fourteen to fifteen years. In other words, every decade and a half, the Japanese economy entered into a new phase, distinct from the preceding one.[4]

In the second subperiod during the 1920s, politics turned to parliamentary democracy but the economy was in the "muddles." In the third subperiod during the 1930s, after the Great Depression, the system veered toward militarism and the economy went into a wartime boom. In the fourth subperiod during the 1950s the economy recovered, and in the fifth subperiod during the 1960s it zoomed. In the meantime, Japan modified the made-in-America system imposed on Japan by the Occupation authorities into its own system of Japanese-style capitalism. The

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modifications started in the 1950s and finished in the 1960s. Slow growth came in the sixth subperiod during the 1980s.

If fifteen-year cycles are the rule, the seventh subperiod of the 1990s must be a new era in which Japan changes its direction. Did the environment change enough in the sixth subperiod to push Japan into a new direction in the seventh? We review recent economic changes in the "Recent Changes" article to verify this point. However, before proceeding to this fact-finding job, we will first review what we mean by Japanese-style capitalism.

Notes

1. This subperiod can be further divided into 1868–88, 1889–1905, and 1906–18. The first part of the subperiod was that of nation building. The second starts with the adoption of the Constitution (1889), covers the Sino–Japanese War (1894–95) in the middle, and ends with the Russo–Japanese War (1904–05). The third includes the annexation of Korea (1910) and Japan's participation in World War I (1914–18) which brought a superboom to Japan.

2. The Nikkei Stock Price Average rose from ¥7,041 (August 1982) to ¥38,130 (December 1989). The urban land price index for the six largest cities (1990 = 100) rose from 35.1 in September 1985 to 105.1 in September 1990.

3. The Nikkei Stock Price Average bottomed out at ¥15,039 in June 1995. As of mid-1996, the urban land price index for the six largest cities was still falling, reaching 48.6 in March 1996.

4. Fifteen-year cycles can also be applied to the first subperiod (1868–1918) if we accept its division into three subperiods. It may even be extended to the last part of the Tokugawa era, namely circa 1830–52 and 1853–67. As commonly accepted now, the development of the money economy, which continued throughout the Tokugawa regime, finally reached a level which caused serious systemic instability. The central government's last-ditch effort to balance the budget was the Tempo Reform (1840–44), which failed. This is the first subperiod.

Then, in 1853, the United States sent a naval fleet to Japan to force the country to open its doors to foreign trade, and the central government succumbed to this demand. The result was to upset the domestic economy with high inflation, which turned political sentiments against the central government. The final outcome was that the military insurgency of the rebellious people in the ruling samurai class toppled the central government.