Implications of the 4% Unemployment Rate

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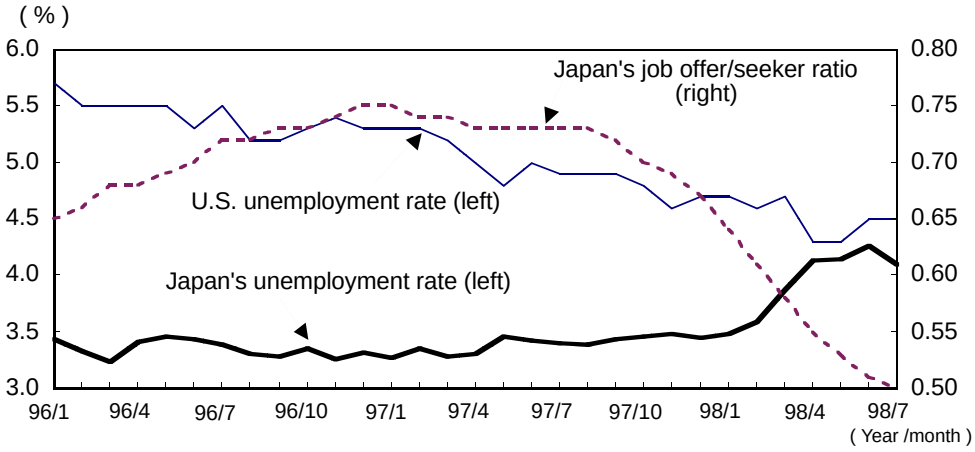
1. Recent Economic Conditions and Employment

One and a half years has elapsed since Japan's economy peaked in March 1997 and entered a recession. While the economy's rapid deterioration from the end of 1997 to early 1998, the employment situation continues to deteriorate.

The unemployment rate surged upward in 1998, reaching 4.3 percent in June, the highest rate on record since statistics were begun in 1953. In addition, the effective ratio of job offers to job seekers, a measure of balance between supply and demand in the labor market, hit a record low of 0.50 in July.

Figure 1 Unemployment Rates (U.S and Japan) and the Effective Ratio of Job Offers to Seekers



Sources: Ministry of Labor, *Status of Job Referrals* ; MACA,*Labor Force Survey* ; others.

Meanwhile, the unemployment rate in the U.S. has dropped almost as low as Japan's due to an extended expansion. This is particularly alarming considering the historically higher unemployment rates in the U.S.

Much rides on the effectiveness of the comprehensive economic policies announced last April and the Obuchi administration's initiatives. Unless the economy responds, Japan's unemploy-

ment rate could conceivably rise above that of the U.S.

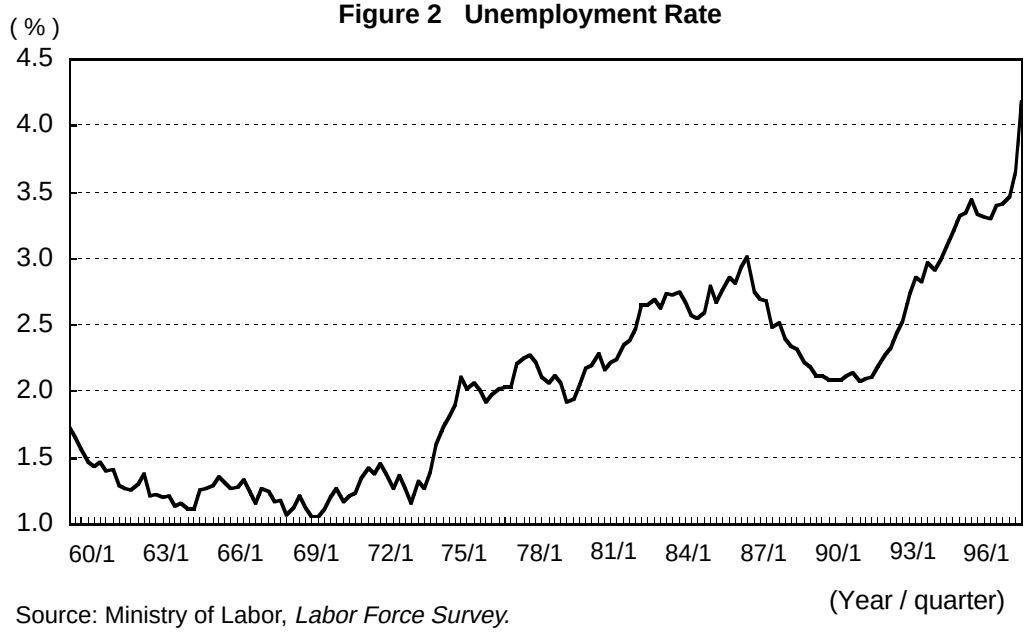
2. Causes of the Long-term Rise in Unemployment Rate

(1) The Long-term Trend

Generally, the unemployment rate drops when the economy expands, and rises when the economy contracts. But Japan has the peculiar characteristic in which the unemployment rate during a recovery often does not decline to the level prior to the recession. Thus to assess the recent unemployment rate increase, we must consider not only recent movements but the long-term trend.

During Japan's high growth era, labor was persistently in short supply, and unemployment generally fluctuated in the 1 percent range through the early 1970s. But after the two oil shocks, the unemployment rate gradually rose to the high 2 percent range by the mid 1980s. Then in the bubble period beginning in late 1986 in 1990 it fell almost to 2 percent, but resumed its uptrend in the recession from 1991. During the recovery phase from late 1993 to early 1997, the unemployment rate saw little improvement, and as the economy deteriorated in late 1997, unemployment began to surge, reaching 4.3 percent in June 1998.

Figure 2 Unemployment Rate



Source: Ministry of Labor, *Labor Force Survey.*

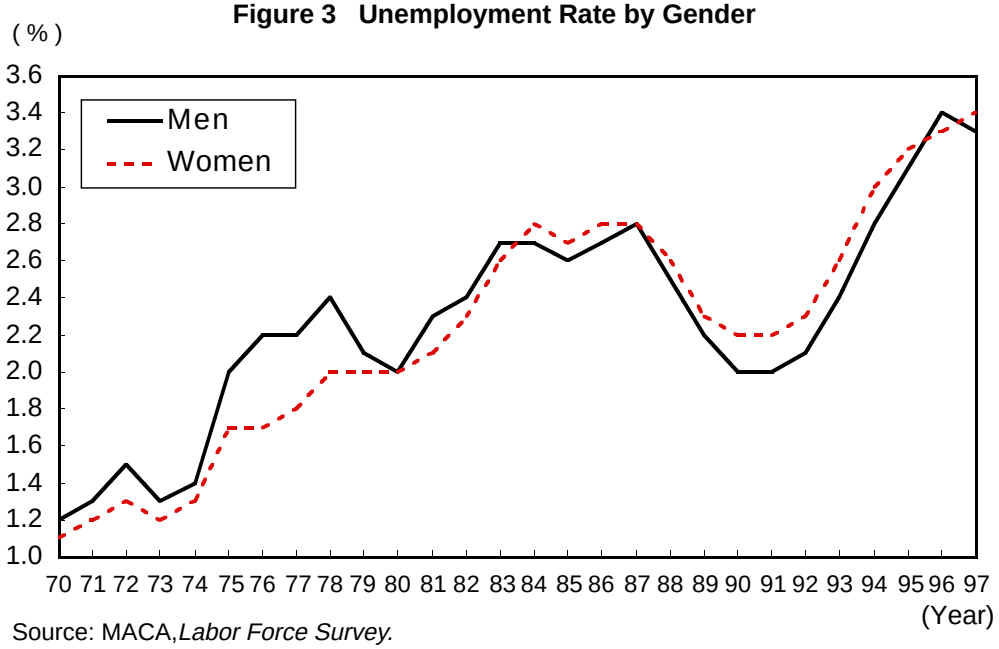
(2) Structural Factors

The long-term increase in unemployment rate can be attributed to structural factors not directly related to business cycles. They include: (1) the rising labor participation rate among women, (2) the increasing ratio of part-time workers, and (3) the growing mismatch between job seekers and job openings.

1. Rising labor participation rate of women

The women's labor participation rate has been rising over the long term due to a greater desire to work due to higher education levels and declining burden of household labor. Since the unemployment rate among women has generally been higher than men since the mid 1980s, the rising women's labor participation rate is thought to contribute to the overall increase in unemployment rate. Another factor is that in recent recessions, women have become less prone to leaving the work force.

Figure 3 Unemployment Rate by Gender



Source: MACA, *Labor Force Survey.*

2. Increase in ratio of part-time workers

Since part-time workers have higher job turnover and unemployment rates than regular full-time employees, the growth of part-time workers tends to push the unemployment rate upward. The part-time worker ratio has been trending upward in the long term in response to preferences on both supply and demand sides: employers can reduce labor costs and adjust employment

more flexibly, while part-time workers can avoid constrictions such as regular work hours.

Table 1 Unemploy Rates of Regular Employees and Part-time Workers

	1985	1990	1995	1997
Regular employees	2.5%	1.7%	2.6%	3.1%
Part-time workers	4.2%	3.3%	4.3%	4.6%

Source: MACA,*Special Labor Force Survey.*

Compared to manufacturing, tertiary industries such as retail, restaurant, and services have higher ratios of both women employees and part-time workers. In 1997, the ratio of women among employed persons in tertiary industries stood at 45.9 percent, compared to an overall ratio of 40.6 percent. In wholesale and retail, restaurant, and service industries, the ratio exceeds 50 percent.

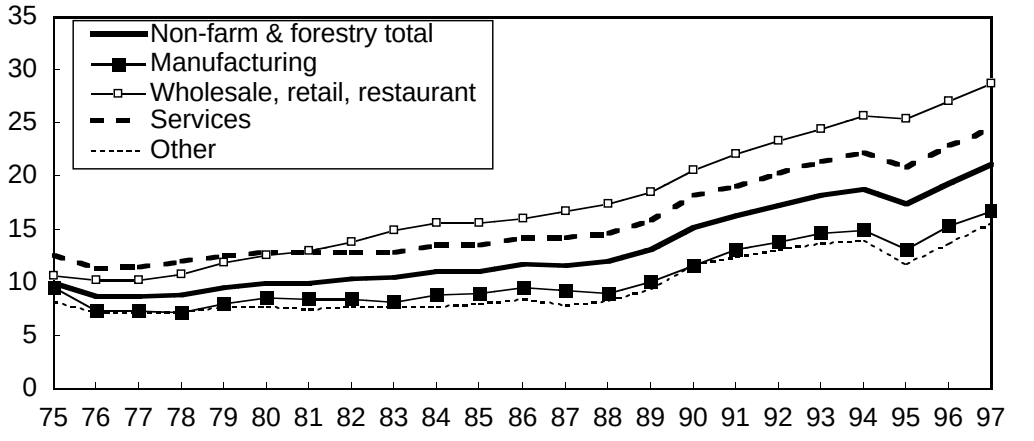
Table 2 Ratio of Employed Women by Industry

	1985	1990	1995	1997
All industries	39.7%	40.6%	40.5%	40.6%
Tertiary industry	42.6%	44.1%	45.3%	45.9%
Manufacturing	39.5%	39.5%	37.2%	36.4%
Wholesale, retail, restaurant	47.4%	48.7%	50.1%	50.5%
Services	50.7%	50.6%	52.0%	52.3%

Source: MACA, *Special Labor Force Survey.*

Moreover, the ratio of part-time workers, which has been rising in undertone since the 1980s, is consistently higher than average in wholesale, retail, restaurant, and service industries.

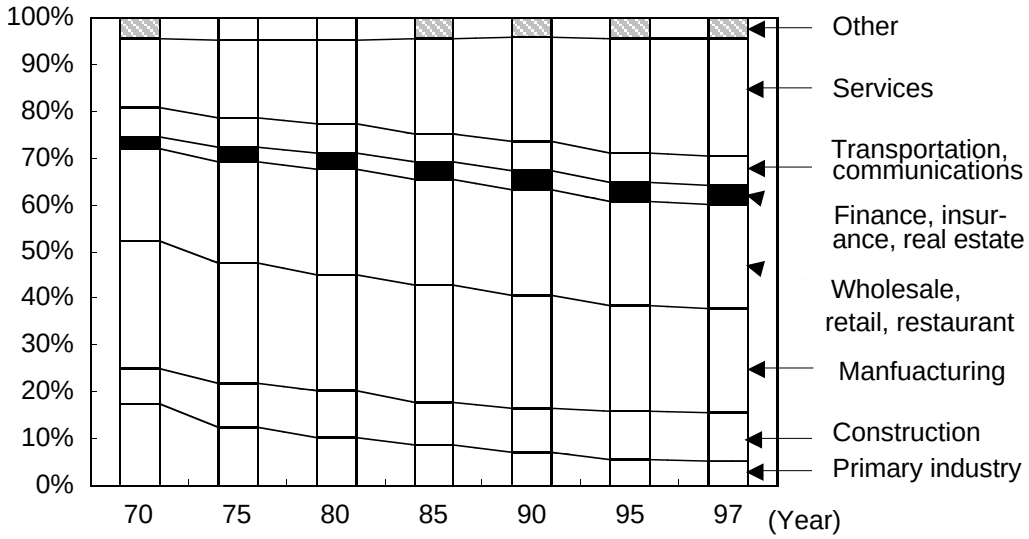
Figure 4 Ratio of Part-time to Full-time Workers by Industry



Note: Part-time workers are employed less than 35 hours per week.
Source: MACA, *Labor Force Survey.*

By industry, the number of employed persons in the primary industries continues to decline in the long term, accounting for only 5 percent of all employed persons in 1997, down from 17 percent in 1970. In the secondary industries, growth in employed persons slowed after the oil shocks, and the ratio has edged down in the 1990s due to the declining manufacturing industry. Meanwhile, the tertiary industries have enjoyed continued growth centered around service industries, accounting for 62 percent of employed persons in 1997, up significantly from 48 percent in 1970.

Figure 5 Workforce Composition by Industry



Source: MACA, *Labor Force Survey.*

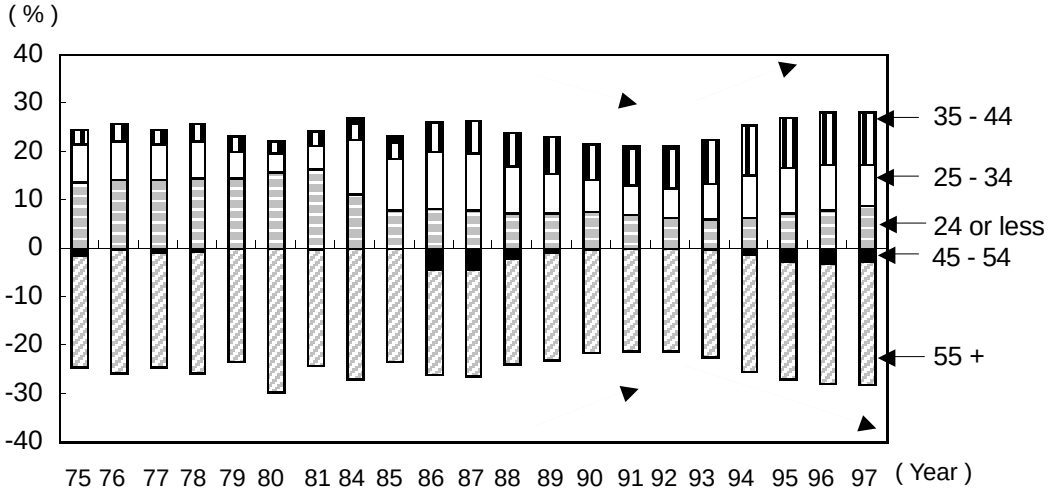
In the U.S., where job creation is centered around new companies, the growing proportion of employed persons in tertiary industries can be absorbed. But as we explained earlier, due to Japan's rigid labor market, the rising proportion of employed persons in tertiary industries pushes up the unemployment rate.

3. Growing mismatch between job seekers and job openings

Even if labor demand (job openings) is equal to labor supply (job seekers), unemployment can exist and even increase from mismatches between job seekers and job openings. For example, job seekers may be located too far away, be too old, or not have the required skills.

Of these, the aging of the labor force is particularly significant and continues to grow in importance. Job openings are most abundant for workers aged 25-34 and fewest for those aged 55 and older. Thus there is a persistent shortage of workers aged 44 and below, while those aged 55 and above are in excess supply. The aging of the labor force thus means that unemployment is structurally inclined to grow.

Figure 6 Disparity Between Job Offers and Seekers by Age (proportional)



Note: Disparity is calculated as follows: proportion of job offers for each age group minus the proportion of job seekers in same age group, as reported in October of each year.
Source: MOL, *Occupational Stability Statistics.*

In the past, the age mismatch has expanded and contracted in cycles. Recently, however, job openings for older workers have been steadily decreasing while the number of younger job seekers has decreased. The growing mismatch in age is thought to be a contributing factor to the rising structural unemployment rate.

3. Structural factors increase unemployment rate in long term

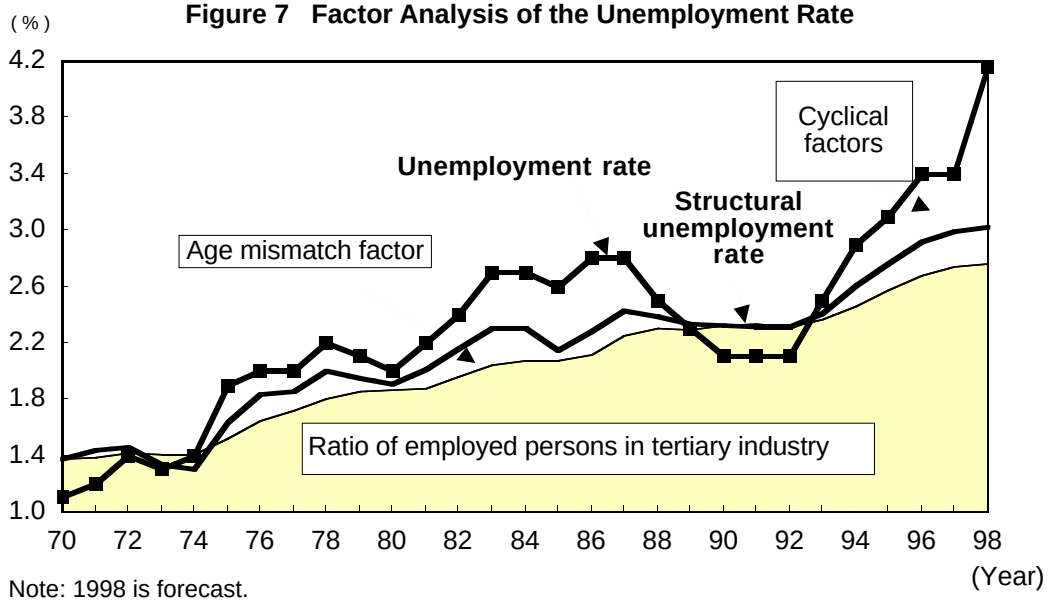
We separated the unemployment rate into structural and cyclical factors to see which factors account for the rising unemployment rate since 1970.[1,2] Unemployment stood at 1.1 percent in 1970, with the structural unemployment rate at 1.4 percent and cyclical factors accounting for minus 0.3 percentage point as a result of the extended Izanagi expansion from the mid 1960s.

Unemployment rose to the 2 percent range following the first oil shock in 1975 until the early 1980s. In addition to the severe recession, the growing proportion of employed persons in the tertiary sector and expanding mismatch of age caused the structural unemployment to start rising.

In 1986, unemployment reached 2.8 percent as the strong-yen recession exacerbated cyclical factors and the structural unemployment rate rose. The bubble expansion that began in late 1986 drove down unemployment to 2.1 percent by 1990. Moreover, structural factors also eased as the bubble economy generated employment in manufacturing and construction, growth came to a halt in the service sector, and the age mismatch contracted slightly.

However, the bubble's subsequent collapse pushed the unemployment rate upward, rising above 3 percent in 1995 and 4 percent in 1998 due to the prolonged recession. In addition to the consistently upward push from cyclical factors, the structural unemployment rate is rising faster due to the tertiary sector's accelerating growth led by services and expanding age mismatch as the population ages.

Figure 7 Factor Analysis of the Unemployment Rate



Note: 1998 is forecast.
Sources: Calculated by author from *Labor Force Survey* and *Status of Job Referrals.*

From 1970 to1997, cyclical factors have accounted for -0.3 to 0.5 percentage point of the fluctuations in the unemployment rate. The structural unemployment rate continues to rise in the long term, from 1.4 percent in 1970 to 3.0 percent in 1997. Of the 1.6 percentage point increase in the structural unemployment rate since 1970, 1.3 percentage point can be attributed to the growing proportion of employment in the tertiary sector, and the other 0.3 percentage point to the expanding age mismatch.

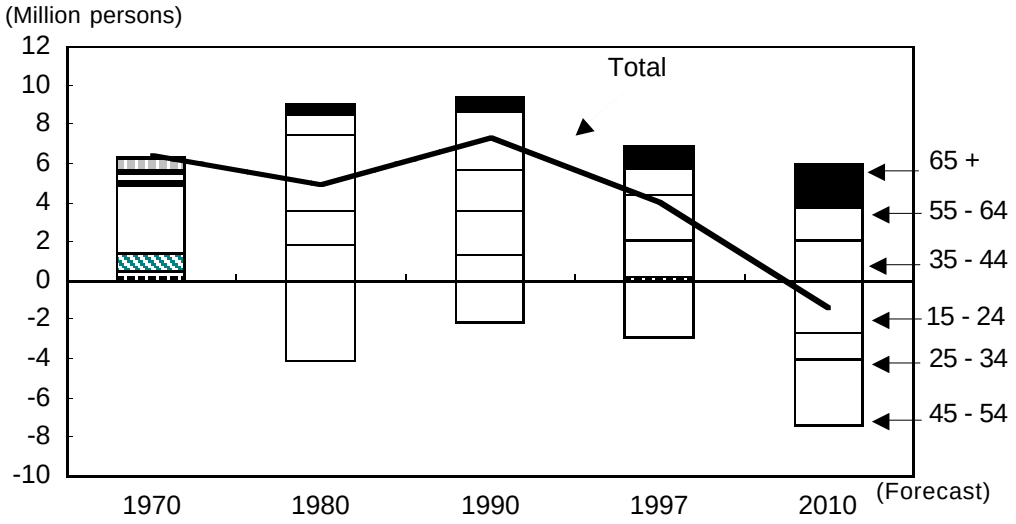
3. Prospects and Issues

(1) Response to Structural Problems

The long-term increase in Japan's unemployment rate is largely attributable to structural factors that are not directly related to cyclical fluctuations. Unless the problems of Japan's labor market are resolved, structural factors will continue to push the unemployment rate upward regardless of an economic recovery, and the unemployment rate is likely to remain high.

For example, information technology and temporary staff services will continue to fuel growth in the service sector. Moreover, rapid aging of the population is likely to widen the age mismatch. Using the National Social Security and Population Research Institute's population projections for 2010, and assuming that labor participation rates remain unchanged for each age group, workers aged 55 and above will increase by 4 million, while workers aged 34 and below will decrease by 4 million.

Figure 8 Change in Labor Force by Age



Note: Shows increase over past decade except for 1997 (7years) and 2010 (13years)
Sources: MACA, *Labor Force Survey* ; National Social Security and Population Research Center, *Population Projection for Japan* (Jan. 1997)

Unless job openings for older workers increase sharply, the age mismatch will continue to expand and cause the structural unemployment rate to rise. In other words, the increase in unemployed older workers will cause the already high unemployment rate among workers aged 55 to 64 to rise further, thereby boosting the overall unemployment rate. Meanwhile, companies will face a shortage of younger workers.

To prevent further increases in the structural unemployment rate, labor mobility needs to be facilitated across industries, and older workers need to secure employment opportunities.

(2) Recent Economic Trends and Issues

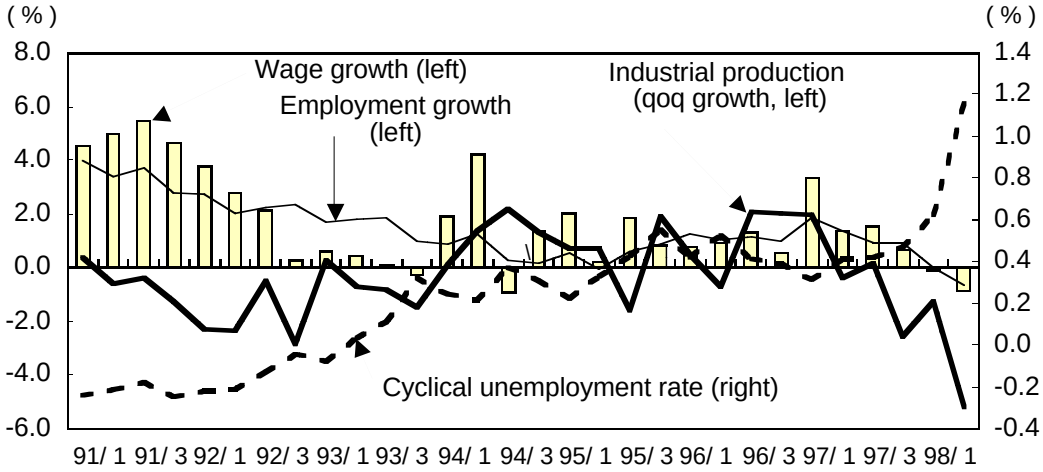
The economy has been in recession since the consumption tax hike in April 1997. Despite signs of recovery in the summer as the expected decline in demand waned, the failures among major financial institutions and Asian crisis combined to further slow the economy in the autumn. From the October-December 1997 quarter, real GDP and industrial production posted negative growth for three consecutive quarters.

Employers first dealt with the substantial slump in final demand by reducing overtime labor and adjusting production. However, as conditions continued to worsen, they were forced to take the next step and begin effecting substantive labor cutbacks. Unemployment, which stood at 3.5 percent at the end of 1997, shot up to 4.3 percent by June 1998.

The recession is thought to have boosted unemployment by an average of 0.4 percent point in 1997 and 1.2 percent point in 1998. Not since 1970 have cyclical factors caused unemployment to rise by over 1 percent.

The government began a new level of economic measures late last year, including a 2 trillion yen tax cut implemented in February 1998. Recovery will depend on the effectiveness of the 16 trillion yen comprehensive economic package announced in April and the initiatives of the Obuchi administration.

Figure 9 Industrial Production, Employment, and Wage Trends



Note: Cyclical unemployment rate was calculated by the author.
Sources: MITI, *Industrial Statistics Monthly* ; MOL, *Monthly Labor Statistics* ; MACA, *Labor Force Survey.*

However, the economy and employment only continue to deteriorate. The number of employees fell 0.6 percent year-on-year in the April-June 1998 quarter, while overtime hours fell significantly, the Spring labor offensive achieved meager gains, and bonuses fell below the previous year, per capita wages continue to fall year-on-year in 1998. Income decline and growing employment anxiety have dampened personal spending, threatening to create a vicious circle in which further production and employment adjustments drive the unemployment rate higher. While the government has drawn up a 15-month fiscal budget to prop up the economy, the economy will need both monetary and fiscal measures for the foreseeable future.

Japan's unemployment problem requires an approach that addresses deeply rooted structural issues. In the meantime, however, the task at hand is to interrupt the vicious circle and keep the unemployment rate from surging higher.

NOTES

1. The structural unemployment rate – which is affected by non-cyclical factors – is also called the equilibrium unemployment rate. It expresses the unemployment level that exists even if cyclical factors create a balance between labor demand and supply. We use the effective job ratio as a proxy for cyclical fluctuations in labor supply and demand, and the tertiary sector employed persons ratio and age mismatch index as proxies for structural factors.

2. Factor analysis was performed using the estimation method below.

log (Unemployment rate) ＝－ 0. 182 ＊ log (Effective job ratio of previous period)
(t = 2. 4)
＋ 1. 016 ＊ log (Employed persons ratio in tertiary sector)
(t = 13. 0)
＋ 0. 693 ＊ log (Age mismatch index)
(t = 2. 4)
＋ 0. 87
(t = 2. 0)
R2 = 0. 940, D.W. = 1. 71
Estimation period: 1970 - 1997

Age mismatch index = 1/2 Σ ｜ Ui/U － Vi/V ｜
Ui: Job seekers in age group i
U: Total job seekers
Vi: Job openings for age group i
V: Total job openings
Age groups are divided into 5-year segments.