Employment Adjustments in Japanese Firms During the Current Crisis

A. HIROYUKI CHUMA*

In this article we describe the severity of the current recession and depict the resultant harsh modes of employment adjustments. As a benchmark for comparison, we refer as frequently as possible to the recession that followed the first oil crisis. Macro indices include the extent of various employment adjustments,[1] the roles of "shock-absorbing" industries, and the impact of public employment polices. As sources of micro-level data, we examine some 30 publicly owned, large-scale firms during both the current recession and the 1970s crisis. To further clarify the situation, we detail employment adjustments carried out by two "seriously wounded" firms.

Introduction

Major personnel reductions took place in Japan during the severe recession brought on by the 1973 oil crisis. Thereafter, the employment of full-time workers in Japanese firms remained relatively stable for a good number of years. However, spurred by the ensuing "bubble boom," the situation began to change markedly in the mid 1980s. Indeed, a serious labor shortage arose during 1987–1992, which produced a rapid increase in the employment of full-time workers. When the "bubble" burst, however, another severe recession followed (known as the "Heisei Recession" in Japan). This current recession has left many firms heavily

*Professor of Economics, Institute of Innovation Research, Hitotsubashi University, Kunitachi, Tokyo 186-8603, Japan.

[1]"Employment adjustment" refers to the various methods used by firms to deal with excess labor inputs during recessions, from the "soft" method of reducing overtime hours to the "hard" method of layoffs.

INDUSTRIAL RELATIONS, Vol. 41, No. 4 (October 2002). Published by Blackwell Publishing, Inc. 350 Main Street, Malden, MA 02148, USA, and 108 Cowley Road, Oxford, OX4 1JF, UK.

burdened with excess employment created during the ''bubble.'' Excess employment problems became especially serious for large- and medium-scale firms. Japan's unemployment rate consequently rose to a record 4.7 percent.

The main purposes of this article are to depict the seriousness of the current recession and to detail the harsh employment adjustments that have been carried out within Japanese firms. To characterize the current recession, we compare it to the recession caused by the first oil crisis (1973–1974), one of the worst in post-war history. More concretely, the state of Japanese labor markets will be captured through analysis of macro indices such as the rate of real GDP growth, the unemployment rate, vacancy rates for recent high school and college graduates, job separation and accession rates, and wage bargaining agreements emerging from organized labor's annual spring offensives (*Shunto*, in Japanese).

The nature of employment adjustments during the two recessions also is compared. The analysis of these adjustments is based on both macro and micro economic data. Macro indices include the extent of various employment adjustments, the roles of ''shock-absorbing'' industries, and the impact of public employment polices. As sources of micro-level data, we examine some 30 representative, publicly owned, large-scale firms and contrast their employment adjustments during the current Heisei Recession to those during the 1970s crisis. To further clarify what is going on within these Japanese firms, we detail employment adjustments carried out by two financially troubled, or ''seriously wounded,'' firms based on field research conducted in 1999. Last, we discuss the three structural constraints that currently generate strong pressures in favor of personnel reduction in Japanese firms: the rapid aging of baby boomers, the expansion of ''lifetime employment'' practices over the past decade and a half, and legislative measures that strengthened employment security following the first oil crisis.

Despite its importance and urgency, an analysis of the Heisei Recession and its impact on employment adjustments has not been conducted in a rigorous way from either macro or micro economic points of view. Quite a few interesting questionnaires and surveys have been carried out and there are abundant journalistic reports about adjustment processes in individual firms. However, most of these pursue a narrow scope of inquiry. An exception is Muramatsu (1999), who carefully examines the employment situation in the late 1990s and concludes that even when compared with previous post-war recessions, the Heisei Recession is quite severe in various respects. The scope of his empirical investigation, however, remains limited to the analysis of several macro indices in the 1990s. In

contrast, following Chuma (1994), this article draws on a wide range of macro and micro economic data and provides a comprehensive overview of the Heisei Recession, using the 1970s crisis as a benchmark for comparison.

The structure of this article is as follows. In the next section, through an examination of publicly available data, we show just how serious the current crisis really is. Following that, we characterize the employment adjustments now taking place in Japanese firms from a macro-analytic perspective. Micro analyses of employment adjustment are conducted next. Finally, we present a descriptive analysis of the three structural constraints.

Measuring the Severity of the Current Crisis

GDP Growth Rates and Unemployment Rates. The current recession is a severe one indeed. This is shown in the rate of real GDP growth (see Figure 1). Following a period of strong recovery from 1995 to 1996, in fiscal year 1997 the Heisei Recession produced Japan's first negative annual growth rate (−0.1 percent) in 23 years. That poor performance only worsened in fiscal year 1998, as Japan recorded its worst GDP decline of the entire post-war period. Although the growth rate recovered somewhat to 0.5 percent in fiscal year 1999, as the government had promised, the speed of the recovery remained disappointing.

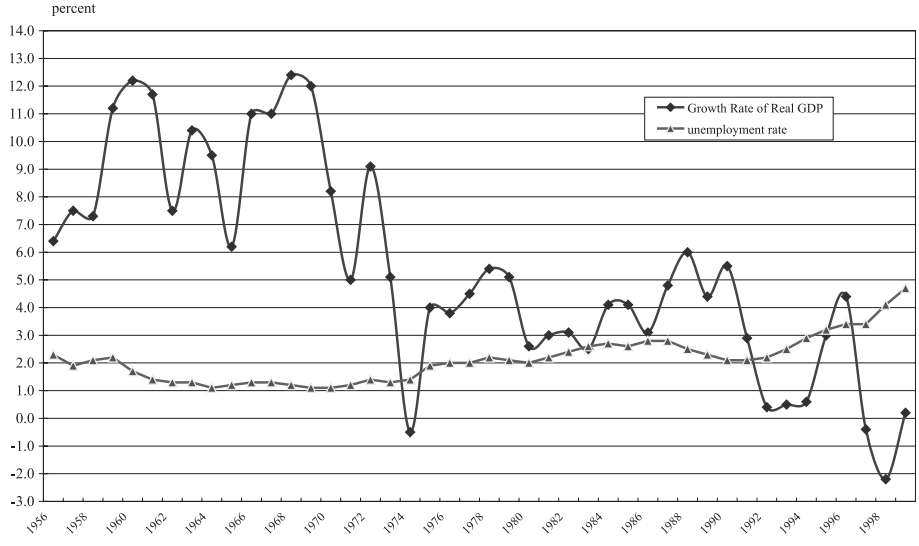
Further reflecting these severe business conditions, the unemployment rate has also been increasing quite rapidly (see Figures 1 and 2). It rose from 2.1 percent in 1991 to 4.7 percent in 1999. The previous post-war record had been 2.8 percent during 1986–1987, after a hasty appreciation of the yen had slowed the Japanese economy. The corresponding unemployment rates for the United States and the United Kingdom in 1999 were 4.2 percent and 4.3 percent, respectively.[2] The fact that Japan's unemployment rate had come to exceed those in the United States and the United Kingdom came as a real shock to many Japanese.

As is also shown in Figure 2, during the Heisei Recession the unemployment rates for males has increased particularly sharply for those aged 15–24 and those aged 60–64. Although not shown here, the same basic tendency also holds for females. Hence, personnel adjustments appear to

[2]The ILO standardized unemployment rate, published by the OECD, is another useful source for international comparisons. If we adopt their figures, the 1999 U.K. rate rises to 6.1 percent, while rates for the United States and Japan are the same as those used here.

FIGURE 1

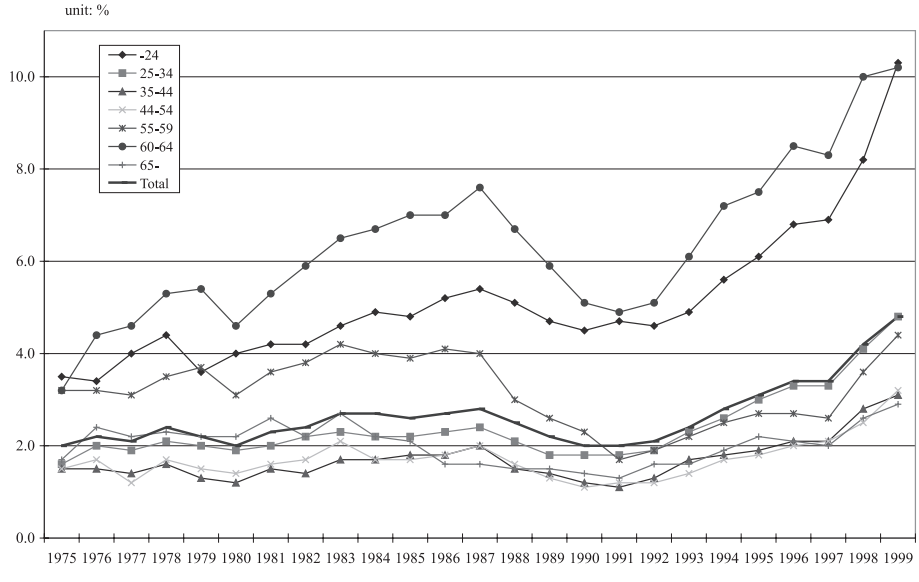
GDP GROWTH RATE AND UNEMPLOYMENT RATE



SOURCE: System of National Account (Economic Planning Agency) and Labor Force Survey (Statistics Bureau).

FIGURE 2

TRANSITION IN UNEMPLOYMENT BY AGE



SOURCE: Labor Force Survey (Statistics Bureau).

occur principally at internal labor markets' ports of entry and exit. In contrast, unemployment rates for prime-aged males (the 35–44 and 45–54 age cohorts) remained relatively stable until 1997. The prolongation of the current recession, however, has started to negatively influence these cohorts, too. This pattern is in striking contrast with the situation during the late 1970s recession.

The burden of personnel adjustments used to be heavily born by those aged 55–59 years. That burden lessened after 1985 when the age of mandatory retirement was extended to 60 years of age. Since 1997, however, the burden has begun to fall once again on this cohort.[3] This trend is also reflected in statistics on displaced workers who are forced to search for new jobs due to personnel reduction, failed businesses, or mandatory retirement. Of these displaced workers, 71 percent are males and 38 percent are over 55 years of age.[4]

Vacancies for Recent High School and College Graduates. The "vacancy ratio" for recent graduates declined markedly from 1991 to 1996 for those at both university and high school levels.[5] The "vacancy ratio" is defined as the total number of vacancies for recent college or high school graduates divided by the total number of recent university or high school graduates who seek jobs. According to the annual survey conducted by Recruit Research Inc.,[6] this ratio for university graduates reached 2.86 in 1991, its highest level during the 1990s. This ratio decreased rapidly after 1991, falling to a low point (1.08) in 1996. After recovering temporarily in 1997 (1.45) and 1998 (1.68), the ratio again dropped (to 0.99) in 2000,[7] reflecting the country's worsening business conditions. The situation has been much worse for female university graduates. Thus while the vacancy ratio for females peaked at only 1.98 in 1991, it rose to 3.14 for males, and while the ratio for males bottomed out at 1.33 in 1996, it sank to 0.45 for females. The two ratios improved somewhat in 1997 (0.64 for females, 1.80 for males), but are unavailable for subsequent years, due in part to pressure from the

[3]The ratio of unemployed workers over 55 years of age to the total number of unemployed was 18 percent in 1978, rising to 22 percent in 1999.

[4]The number of displaced workers became 1 million (or 32 percent of the total unemployed) in 1999, whereas it had been only 0.3 million (23 percent of the unemployed) in 1991. We might also note here that highest previous ratio of displaced to unemployed workers was 33 percent in 1987.

[5]School graduations generally take place in the month of March in Japan.

[6]The samples were private giant firms that tried to provide recruiting or placement services for new university graduates.

[7]The number in 2000 for new school leavers who graduated on March 2000. This is applied for the other year in this part.

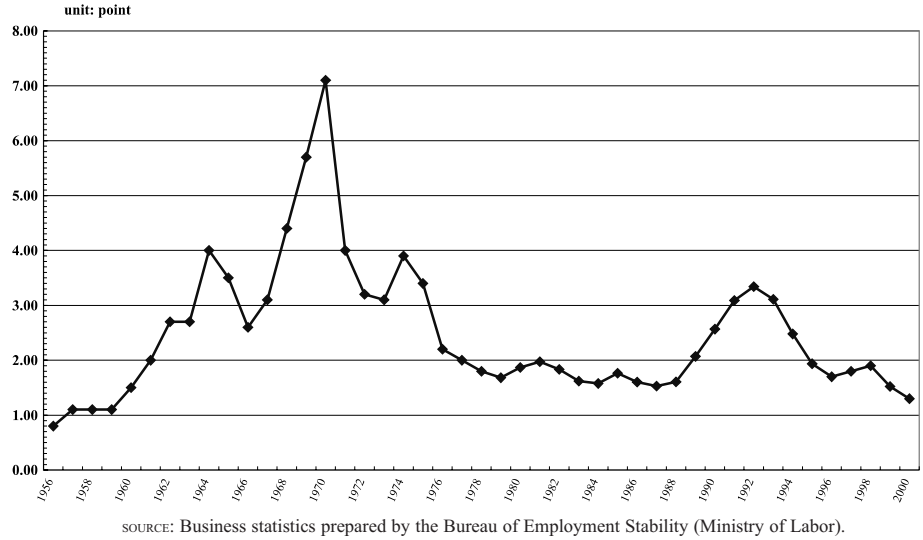
Ministry of Labor, which expressed strong objections to the publication of these ratios by sex.

The vacancy ratio for recent high school graduates was highest (3.34) in March 1993, but also fell rapidly thereafter to a low point (1.73) in 1996. Though it rose temporarily, to 1.77 in 1997 and 1.88 in 1998, the ratio began dropping once again, to 1.52 in 1999 and a mere 1.30 in 2000. It is clear, then, that the severe employment adjustment is affecting recent high school and university graduates.

We would, of course, like to be able to compare these figures for the Heisei Recession with those that accompanied the recession produced by the 1970s oil crisis. Unfortunately, however, vacancy ratios for recent university graduates are unavailable prior to 1989, which was when Recruit Research Inc. began its survey. We are thus limited to an examination of vacancy ratios for recent high school graduates (see Figure 3). And here we find that during the first oil crisis, the ratio dropped in a similarly drastically fashion, from 3.9 in 1974 to 1.7 in 1979 (or 56 percent). It remained at a low level until 1988, when the last "bubble" upturn began. As indicated above, during the current Heisei Recession the corresponding ratio dropped from 3.3 in 1993 to 1.3 in 2000 (or 61 percent). With regard to this important aspect of the labor market's port of entry, then, the seriousness of the

FIGURE 3

JOB VACANCY RATIO FOR HIGH-SCHOOL NEW GRADUATES



SOURCE: Business statistics prepared by the Bureau of Employment Stability (Ministry of Labor).

current recession matches that of the recession produced by the 1973 oil crisis.[8]

Job Accession and Separation Rates. The Survey on Employment Trends (*Koyo Doko Chosa*, published by the Ministry of Labor) indicates, as shown in Figure 4, that the "job accession rate"[9] for "regular workers"[10] rose a great deal during the late 1980s boom. After 1990, however, the rate began to decline markedly, establishing a low point for the entire post-war period (12.9 percent) in 1994. Although the rate rose temporarily thereafter until 1997, a downward trend took hold once again in 1998.[11] Separation rates move in ways that quite closely follow accession rates. The lowest separation rate (13.8 percent) was attained in 1994 and again in 1996. It then rose to 15.2 percent in 1997 before resuming a weak downward tendency in 1998.[12] As Figure 4 reveals, accession rates have fallen short of separation rates since 1994.

The magnitude of decline in accession and separation rates during the Heisei Recession is not as great as that during the recession caused by the first oil crisis (see Figure 4). Indeed, although accession rates dropped by approximately 34 percent between 1973 and 1978, they declined by only 23 percent from 1990 to 1994. In this sense at least, the previous recession appears to have been more serious than the current one. We should also note here that the Japanese labor market was much more mobile in the late 1960s and early 1970s than in the 1980s or 1990s. One should also remember that during the 1960s and 1970s there was a large number of young baby boomers entering the labor market and that these workers are now reaching their early 50s.

Change in Manufacturing Employment. According to the Labor Force Survey (*Rodo-ryoku Chosa*, published by the Statistics Bureau), the number of people employed in manufacturing has declined rapidly during the Heisei

[8]It is worth noting here that the biggest drop in the post-war period occurred between 1970 (7.1) and 1973 (3.1). This drop was due to the rapid appreciation of the yen (from 360 yen to the dollar in 1970, to 271 yen in 1973) triggered by the Nixon administration's abandonment of fixed exchange rates in 1971.

[9]The accession rate examined here is defined as the total number of "regular workers" hired by each establishment during a given year divided by the number of "regular workers" employed by each establishment at the beginning of that year.

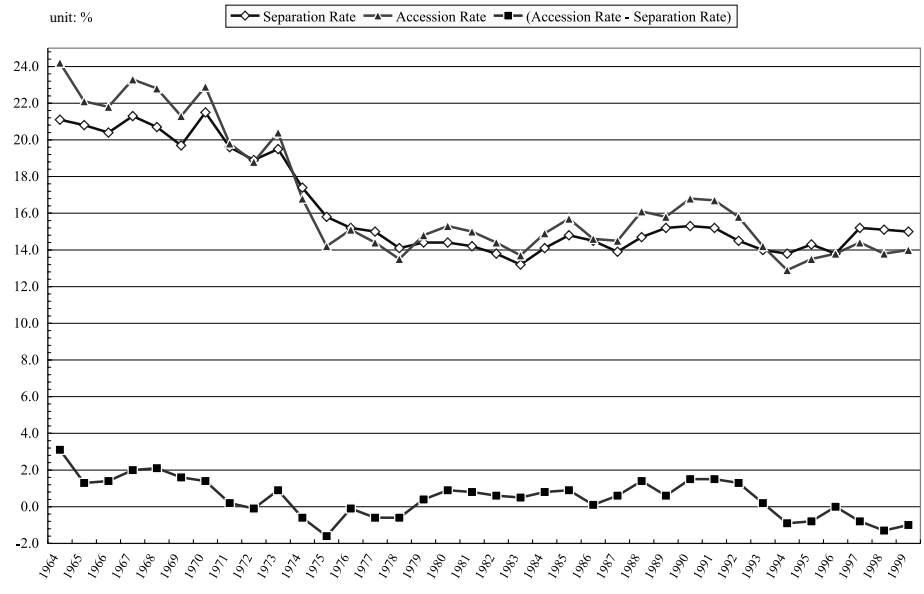
[10]"Regular workers" are defined as (1) workers whose employment contracts have no definite length, (2) workers whose employment contracts are longer than one month, or (3) workers who works for more than 18 days during the previous two months even if their contract length is less than one month.

[11]The latest data available are from the first half of 1999.

[12]Separation rates in the 1960s (20.7 percent on average) and in the 1970s (17.1 percent) were much higher than those in the 1980s (14.3 percent on average) or the 1990s (14.5 percent).

FIGURE 4

TRANSITION IN ACCESSION AND SEPARATION RATES



SOURCE: Survey on Employment Trend (Ministry of Labor).

Recession. If, at its 1992 peak, 15.7 million worked in manufacturing, that number decreased some 15 percent over the course of the current recession to 13.4 million in 1999. By comparison, during the oil crisis recession, the figures for manufacturing employment dropped from 14.4 million in 1973 to 13.3 million in 1979, a 9 percent decline. The rate of decrease in manufacturing employment has been considerably greater during the current recession than during the previous one.

However, it would be somewhat risky to suggest that the recent decrease in manufacturing employment has been structural. This is because, as shown in Figure 5 (based on the Monthly Labor Survey [*Maitsuki Kinro Tokei Chosa*], published by the Ministry of Labor), the relative degree of shrinkage during the current Heisei Recession has been almost the same as that during the late 1970s recession—at least thus far. We should note that the data in Figure 5 include only ''regular workers'' who work for establishments with 30 employees or more. We also note here that although the macro time-series data are not available, the number of temporary help workers (THWs) who are registered as service-sector employees but who actually work in manufacturing industries has been rapidly increasing, particularly in the

FIGURE 5

FULL–TIME EMPLOYMENT INDEX FOR MANUFACTURING INDUSTRY (1995 = 100)

SOURCE: Monthly Labor Survey (Ministry of Labor).

late 1990s.[13] The Statistical Survey for Establishments and Firms (*Jigyo-sho Kigyo Tokei Chosa*) has recently begun reporting the number of THWs in each establishment, indicating that they occupied about 4 percent of manufacturing employment by 1996. This percentage is quite comparable to the one reported by Estevao and Lach (1999) for the United States.

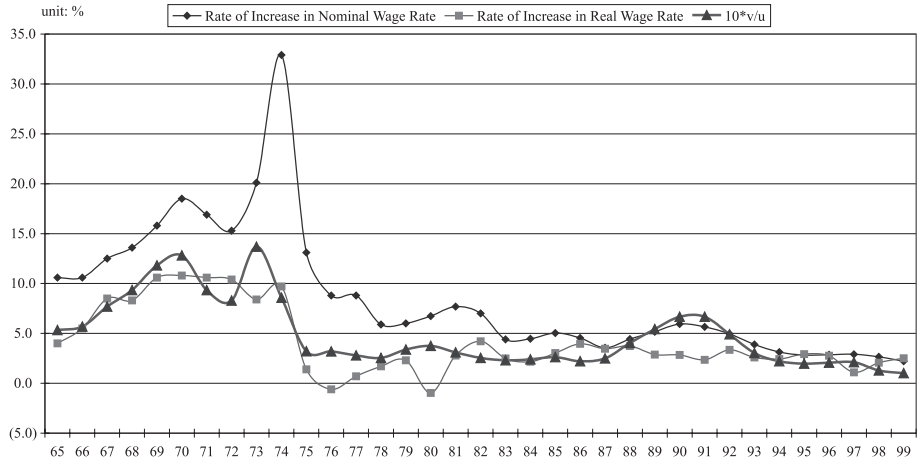
Wage Bargaining in the Spring Offensive. The degree to which the bargaining power of labor unions has diminished during the current recession is suggested by Figure 6, which plots both the rate of increase in real or nominal wage rates achieved by the annual spring offensives and an index of "labor market conditions" (job vacancy (v)/unemployment rate (u)). In this figure, data have been drawn from the large-scale firms with more than 1,000 employees that are listed in the primary section of the Tokyo Stock Exchange, all of which have labor unions.

The data reveal that although the recent rate of increase in nominal wages has continuously broken the lowest recorded rates of the post-war

[13]According to my recent (June 2000) field research, the number of THWs employed by several prominent manufacturing firms had by then reached some 20–40 percent of their production workforce.

FIGURE 6

RATE OF WAGE INCREASE IN THE SPRING OENSE



SOURCES: Ministry of Labor's Annual Report (nominal wage increase); System of National Accounts/ Economic Planning Agency (consumer price index); Labor Force Survey/ Statistics Bureau (unempolyment rate); Business Statistics/Ministry of Labour (Vacancy rate).

period, the rate of change in real wages has remained positive, due mainly to deflationary pressures. In contrast, during the late 1970s recession, annual real wage shifts were twice negative, due principally to strong inflationary pressure. However, according to the Monthly Labor Survey (Ministry of Labor), the real wage (=total cash earnings) index for establishments with 30 employees or more dropped by 2.1 percent from 1998 to 1999, while it dropped by only 1.6 percent from 1979 to 1980. Hence, overall it would appear that the late 1990s are not very different from the late 1970s.

Finally, casual observation indicates that both nominal and real wage rates are very sensitive to labor market conditions (v/u in Figure 6). Indeed, the correlation coefficient between v/u and the rate of increase in real and nominal wage rates is 0.70 and 0.78, respectively. This sensitivity of nominal wages to market conditions emerges only more strongly during the 1990s, when the correlation coefficient is 0.99. Viewed from this perspective, then, the labor unions appear to have behaved quite rationally.

Employment Adjustments in Japanese Firms

Employment Adjustments During Past Recessions. It is said that Japanese firms accord great importance to job security for their employees. However,

in the immediate post-war period (Japan's "turbulent decade"), even many large-scale firms dismissed designated workers during lean years.[14] In 1949, for example, when the government's budget was reduced as a result of Mr. Dodge's proposal, many Japanese firms resorted to massive (permanent) layoffs amidst recession. Similarly, the Survey on Labor Mobility (*Rodo Ido Chosa*, published by the Ministry of Labor) reported that under the depressed economic conditions of 1954, about 21 percent of separated workers had been fired. The corresponding ratios throughout the period of strong economic growth preceding the Heisei Recession did not exceed 10 percent (in 1975).[15]

Mass dismissals also occurred in the wake of the first oil crisis. The Total Survey on Employment Change (*Koyo Hendo Sogo Chosa*, conducted by the Ministry of Labor in 1979) confirmed the fact that about 20 percent of large-scale firms (with more than 1,000 employees) in the manufacturing industry had invited voluntary retirements or discharged full-time workers "nominated" by managers between January 1975 and June 1978. The corresponding ratios for the medium-scale firms (divided into two categories: those with 300–999 employees and those with 100–299 employees) and small-scale firms (again divided into two categories: 30–99 and 5–29 employees) were 31 percent/30 percent and 26 percent/17 percent, respectively. Those laid off in the manufacturing industry during this same period amounted to about 700,000 workers (of which 150,000 had been discharged by managerial nomination). Throughout all industries, the number of discharged workers totaled some 1.6 million. We should note here that the number of unemployed during 1975–1978 hovered around one million, compared to the approximately three million who are currently unemployed.

The Special Labor Force Survey (*Rodo-ryoku Chosa Tokubetsu Chosa*, published by the Statistics Bureau) also provides supporting evidence for the situation depicted above. Indeed, during the recession that followed the first oil crisis, among unemployed adults who had previously held jobs, about one-third (32.5 percent in 1975, 34.5 percent in 1978) had been fired by their previous employers. During the 1990s, in contrast, the corresponding figures do not exceed 25.9 percent (in 1999). In this sense, then, employment adjustments were much more severe in the late 1970s than in the 1990s. Here we should note that the percentages of unemployed persons who had previously held jobs varied slightly over the years: 66 percent in 1975, 62 percent in 1978, and 69 percent in 1999.

[14]The content of this paragraph is drawn mainly from Koshiro and Soken (1995).

[15]The highest ratio yet recorded during the Heisei Recession has been 8.7 percent, in 1995.

Why Were Unemployment Rates So Low in the Past? The Labor Force Survey only became available in 1953 and we therefore lack reliable unemployment statistics for the early post-war years. We do know, however, that unemployment rates in 1953, 1954, and 1955 were 1.9 percent, 2.3 percent, and 2.5 percent, respectively. These figures were very low despite the harsh personnel reductions conducted around that time. Low unemployment rates were due, above all, to the ability of the agricultural sector (which occupied about 40 percent of the total working population) to temporarily absorb a large number of those who lost jobs. As a matter of fact, if we construct an unemployment rate only for employees, by supposing that no unemployment exists in the agriculture and forestry sectors, the corresponding rate for 1955 would be 5.6 percent. Public-relief work was introduced to reduce the unemployed during this period. A Labor Ministry document (Ministry of Labor 1970), for example, reported that 250,000 of the potentially unemployed benefited from public-relief work in 1957—at a time when the number of those actually unemployed was reported to be 820,000.

Despite the mass dismissals alluded to above, unemployment rates in the late 1970s remained relatively low (the high of 2.2 percent was registered in 1978). This was possible in part because a wide range of shock-absorbing sectors effectively compensated declines elsewhere. As we will see below, the latter aspect contrasts sharply with developments during the current Heisei Recession. Indeed, during the late 1970s, employment in the manufacturing sector and in the agriculture and forestry sector decreased, respectively, by 1.2 million and by 0.7 million persons, while the total labor force was growing by 2.2 million. In contrast, the construction industry[16] increased by 0.5 million, the service sector by 1.2 million, the wholesale and retail trade by 1.3 million persons, and ''other'' sectors by 0.6 million. By simple calculation, then, we arrive at a negative balance of some 500,000 unemployed persons generated during this period, which was the equivalent of a 1 percent increase in the employment rate. That rate rose from 1.3 percent in 1973 to 2.2 percent in 1978.

In addition, the new-style unemployment insurance system, EAS (Employment Adjustment Subsidy [*Koyo Chosei Jyosei-Kin*]), introduced

[16]We should note that among these shock-absorbing industries, the construction industry exhibits a striking feature: the number of workers in this sector tends to increase rapidly during recession—this was particularly the case following the first oil crisis—and to gradually decrease during boom periods. One of the key reasons for this pattern has been the expansion of public investment during recessions. Indeed, the simple correlation coefficient between the rate of increase of workers in the construction industry and the rate of expansion in public investment is 0.63 over the last two decades.

in 1975, contributed to the low unemployment rate.[17] The EAS provided financially troubled firms with subsidies for preventing unemployment, maintaining current jobs, and promoting new employment. In 1975, for example, 55.2 billion yen ($200 million)[18] was spent on these programs. This amounted to 0.04 percent of the nominal GDP in that year. The government made 7.2 million workers eligible for the EAS in 1975. Of these, 2.9 million received benefits, which ranged from half (for large firms) to two-thirds (for medium and small firms) of their previous wages, distributed over six months.[19] If all these workers had been laid off, the unemployment rate in 1975 would have been 5.4 percent instead of 2.0 percent.

Furthermore, *Shukko* and *Tenseki*[20] practices were introduced during this period among large-scale firms and contributed to reducing the number of the unemployed. We note here that most firms that resort to *Shukko* or *Tenseki* guarantee the interfirm salary differentials for the related firms. A recent survey (Center for Industry Employment Stability[21] (1997)) reports that 80 percent of sending firms guarantee more than 60 percent of their *Shukko* workers' salaries. JIL (1999) also reports that 75 percent of sending firms guaranteed workers the same salaries they received before entering *Shukko* arrangements. In this sense, *Shukko* and *Tenseki* could be mutually beneficial for the sending and accepting firms. Moreover, and particularly since the first oil crisis, many Japanese firms have begun to establish 100 percent subsidiary firms that absorb incumbent employees in the form of *Shukko* or *Tenseki* arrangements.

Redeployment of workers among establishments within each firm also began to occur quite widely during this period. This is confirmed by Figure 7, which provides ratios of the number of those deployed within firms to the total of separated workers. The data come from the Survey on Employment Trends (Ministry of Labor).[22] From this figure we can see that (1) this ratio tends to increase during recessions: 1974 to 1979, 1985 to 1987,

[17]Shinozuka (1985) strongly questions the positive impact of the EAS.

[18]The average exchange rate in 1975 was 297.3 yen to the dollar.

[19]Three-month extensions were also possible.

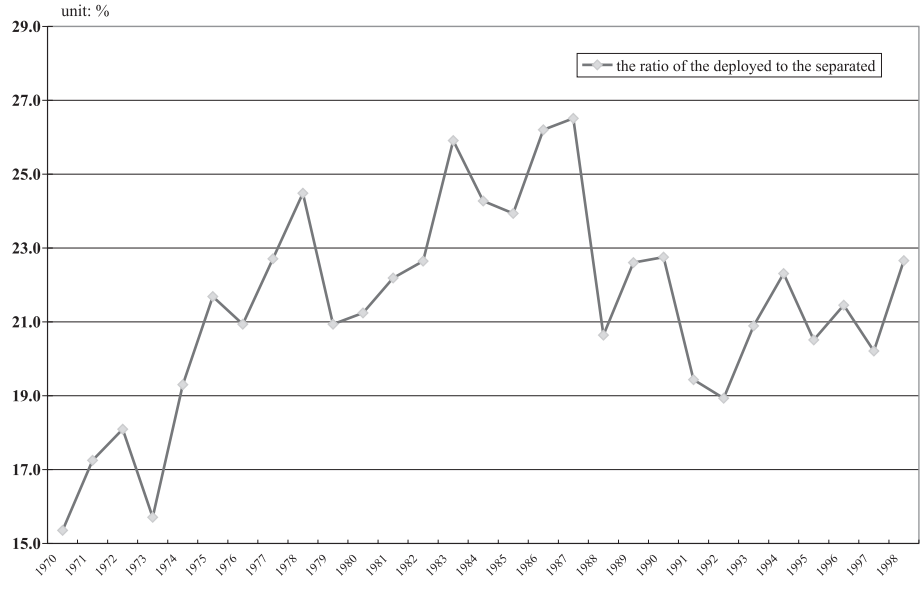
[20]*Shukko* is defined as the practice of lending out a part of the firm's regular workforce to its own subsidiaries or to related (sometimes unrelated) firms. *Tenseki* is defined as the practice of providing outsourcing services within subsidiaries or related (sometimes unrelated) firms. The length of a worker's *Shukko* arrangement is normally three to four years. For workers of advanced age, however, it is quite likely that they will never come back to the original firms that order them to participate in *Shukko* arrangements. In this case, after the completion of the *Shukko* period, the workers are transferred to the firms within which they had begun to work under *Shukko* arrangements. In this way, *Shukko* workers effectively become *Tenseki* workers. The official annual *Shukko* data first became available in 1988.

[21]This is the semi-public institution (*Sangyo Koyo Antei* Center) for promoting *Shukko* and *Tenseki* among non-*Keiretsu* firms. It was established in March 1987.

[22]This survey is based on samples of establishments with five or more regular employees.

FIGURE 7

THE TRANSITION IN THE RATIO OF THE DEPLOYED WITHIN FIRMS TO THE TOTAL SEPARATED PERSONS



SOURCE: Survey on Employment Trend (Ministry of Labor).

1992 to 1994, and 1997 to 1998; and that (2) this ratio was much higher in the late 1970s and the 1980s than it was in the 1990s.

Severity of Current Employment Adjustments. The quarterly Survey on the Movement of the Labor Economy[23] (*Rodo Keizai Doko Chosa*, published by the Ministry of Labor) serves to clarify the severity of employment adjustments. During 1991–1999, these adjustments in the manufacturing sector were most pervasive (50 percent) in the fourth quarter of 1993. This percentage is lower than the peak figure of 74 percent[24] recorded during the 1970s recession, but far exceeded the 40 percent level reached during the recession of 1986–1987. With regard to other economic sectors, the only available data is for wholesale and retail trade. The highest figure for this sector was 36 percent in the third quarter of 1993; and it reached 35 percent in the second quarter of 1975.

[23]Sampled establishments are required to describe their situation for the previous three months only.

[24]The number for large-scale firms with 1,000 regular employees or more was the highest (85 percent) in the first quarter of 1975, while the corresponding number was 70 percent in the fourth quarter of 1993. We should note here that data was available only for the manufacturing sector during this period.

All economic sectors have resorted to relatively "soft" methods of employment adjustments, despite the prolonged recession. Indeed, in the fourth quarter of 1993, the manufacturing industry reported that 38 percent of sampled firms resorted to "reducing over-time hours," 41 percent to "using *Shukko* or redeployment," and 24 percent to "reducing or stopping the recruiting of mid-career workers" as primary methods of employment adjustment. However, the ratio of firms that resorted to "inviting voluntary retirees or discharging" increased as the depression became more prolonged. In fact, it was only 1 to 2 percent in every economic sector until 1997. In the first quarter of 1999, however, this ratio rose to 8 percent in the construction industry, 6 percent in the manufacturing sector, 4 percent in the wholesale and retail trades, and 3 percent in the service sector. In the case of the first oil crisis, the highest figure for manufacturing was 7 percent (in the first quarter of 1975).[25] It is also interesting to observe that in the difficult first quarter of 1975, only 20 percent of manufacturing firms resorted to *Shukko* (or redeployment), whereas 50 percent of them turned to "reducing or stopping the recruiting of mid-career workers."

The Survey on the Movement of the Labor Economy[26] also reports that managers' perception of "excessive regular employment" is most pronounced in the manufacturing industry. From the last quarter of 1998 to the first quarter of 1999 this type of pessimistic assessment nonetheless developed among all sectors, with the exception of the transportation and communication industries.

The perception of excessive supply is also reported in this survey by type of occupation. It indicates that workers in administrative or clerical jobs are deemed to exist at excessive levels not only in large-scale firms but even in medium- and small-scale ones. This is quite a contrast with past recessions, including the one that resulted from the first oil crisis.[27] Furthermore, in large-scale manufacturing firms with more than 1,000 regular employees, excess supply is said to exist in every type of occupation, including professionals, engineers, and salespersons. No such phenomenon has been

[25]We note that the above ratio of firms resorting to personnel reduction would be much higher if sampled firms were required to report not merely the experience of the past three months but rather that of the past year or more. Actually, a 1998 survey by the Japan Institute of Labor indicates that 23 percent of randomly sampled firms had resorted to personnel reductions over the course of the preceding year.

[26]Sampled firms are required to select one of the following three alternative descriptions of their regular employment situation: redundant, optimal, or insufficient. The "perception of excess employment" is measured as the percent of firms whose situation is described as redundant minus the percent of those described as insufficient.

[27]As is always the case, the larger the firm's scale, the stronger such perceptions tend to become.

observed in prior recessions. In the first quarter of 1975, for example, skilled production and salespersons were still in high demand.

Why are Unemployment Rates Currently So High? The burden of severe recessions can be mitigated when there are many industries in place that are capable of absorbing the potentially or actually unemployed. As was mentioned earlier, this is just what happened during the recession that followed the first oil crisis in the 1970s. The Heisei Recession, however, has had a broad impact throughout the economy, from manufacturing industry to financial and insurance services. As a result, the countervailing effects of "shock-absorbing" sectors have been very limited.

During 1992–1999, the manufacturing sector lost 2.2 million workers. The agriculture and forestry sector lost 0.7 million. In contrast, the service sector increased by 2.1 million workers, the construction industry by 0.4 million, and the wholesale and retail trade added 0.4 million jobs. Among remaining sectors, employment levels in transportation and communication increased 0.2 million, but those in finance, insurance, real estate, public utilities, and the government sector have either remained constant or decreased slightly. Consequently, the balance of all "other" sectors[28] was a total increase of only 40,000. At the same time, the total labor force increased by 2.1 million from 1992–1999. Hence, by simple calculation we arrive at the figure of roughly 2.0 million as the total excess labor supply by the end of the period. This excess supply produced the record-high unemployment rate of 4.7 percent in 1999. It is worth noting here once again that there was a total of 3.2 million unemployed Japanese in 1999.

Shukko practices have not actually been increasing as much during the current crisis as people normally think. In fact, the Survey on Employment Trends reported that the "stock base" of *Shukko* employees was 400,000 in 1992, while the figure reached 500,000 in 1998. Actually, although the number of *Shukko* employees rose by 50 percent from 1992 to 1997, it declined by 20 percent from 1997 to 1998. About half of *Shukko* employees are over 45 years of age.[29] We also note here that a huge number of baby boomers reached their late 40s and then their early 50s during the 1990s.[30]

[28]These include finance and insurance, real estate, public utilities (gas, heat, and water), and the government sector.

[29]More precisely, the recent numbers (as a flow base) are as follows: 45 percent in 1991, 49 percent in 1992, 52 percent in 1993, 44 percent in 1994, 47 percent in 1995, 55 percent in 1996, 47 percent in 1997, and 48 percent in 1998.

[30]The role of *Shukko* as a method of human resource allocation in the labor market is very limited. Indeed, the ratio of newly incoming *Shukko* employees to the total pool of job changers was only 3.0 percent as recently as 1998.

The last point is detrimental to the conventional practice of sending most *Shukko* employee to *Keiretsu* firms. In fact, the Survey on the Conditions of Industries and Labor Markets (*Sangyo Rodo Jijyo Chosa*, published by the Ministry of Labor (1994)) reported that 90 percent of *Shukko* workers had been sent to *Keiretsu* firms. As a result, the capacity of receiving firms declined rapidly. This must be one of the reasons why the number of *Shukko* workers fell from 1997 to 1998. For the same reason, many large-scale firms have begun sending their employees beyond their *Keiretsu*.

However, matching employees with positions beyond the *Keiretsu* requires an effective job-placement system, which the Japanese economy does not currently possess. Indeed, until two years ago, the public placement offices had more or less monopolized placement services. Placement services have recently been liberalized to a significant extent, but a number of real constraints remain. In fact, according to statistics provided by the Ministry of Labor, some 250,000 people found jobs through private placement agencies in 1998. Of these, however, about 200,000 involved temporary positions, such as housekeepers or models, and only 25,000 were professional, technical, or administrative jobs.

The Employment Adjustment Subsidy (EAS), introduced in 1975 in order to bolster then-existing levels of job security, does not appear to have contributed very much to the reduction of unemployment in the recent period. To be sure, expenditures on the EAS have expanded greatly during the current recession.[31] For example, the Ministry of Labor recently reported that about 1.25 million workers were subsidized by the EAS in 1998. If EAS benefits had not been distributed and all these workers had instead ended up unemployed, the unemployment rate that year would have been 6 percent. However, these hypothetical figures are unacceptable because the assumptions behind them are far too optimistic. We also note here that the EAS principally targeted job security in the conventional sectors of industry. Indeed, most EAS expenditures went to the manufacturing sector: 91 percent in 1994, 95 percent in 1995, 97 percent in 1996, 99 percent in 1997, and 98 percent in 1998.[32] Moreover, within the

[31]More concretely, the following nominal amounts of money were spent over the course of the current recession (using the 1999 figure as a budgetary baseline): 1993: 38.5 billion yen ($350 million, or 0.008 percent of GDP); 1994: 65.7 billion yen ($650 million, or 0.014 percent of GDP); 1995: 64.1 billion yen ($680 million, or 0.013 percent of GDP); 1996: 30.8 billion yen ($280 million, or 0.006 percent of GDP); 1997: 15.2 billion yen ($130 million, or 0.003 percent of GDP); 1998: 28.7 billion yen ($390 million, or 0.006 percent of GDP); 1999: 61.1 billion yen ($540 million, or 0.012 percent of GDP). The exchange rates were 110.5 yen to the dollar in 1993, 101.4 in 1994, 93.8 in 1995, 109.2 in 1996, 121.8 in 1997, 138.2 in 1998, and 113.2 in 1999.

[32]Expenditures for the Great Hanshin Earthquake were excluded from these calculations.

manufacturing sector, the steel industry was most heavily subsidized: 36 percent in 1994, 56 percent in 1995, 70 percent in 1996, 80 percent in 1997, and 35 percent in 1998.

In light of this situation, the government decided to expand another type of subsidy called the Employment Development Subsidy for Specific Job Seekers (EDSSJS).[33] This program's main objective was to create new employment for elderly workers and the handicapped. The scale of the EDSSJS has far exceeded that of the EAS since 1994.[34] Despite this strengthening of public employment policy, its effects remain unclear. One of the main reasons could once again be the existence of a huge number of baby boomers recently reaching their late 40s and early 50s. The weakness of private job placement service systems in Japan has also aggravated the situation.

Finally, even during the Heisei Recession, the redeployment among establishments within each firm has been conducted to a large extent. As is shown in Figure 7, however, the ratios of the deployed within each firm to the total separated persons in the late 1970s or the early 1980s were much higher than those in the late 1980s or the 1990s. In other words, the role of deployment as an employment adjustment has been relatively weakened. In fact, as was repeatedly indicated, the huge number of baby boomers reaching their late 40 and then early 50s during the 1990s made deployment more difficult than before. This tendency was also accelerated partly by the fact that, around 1985, the age of mandatory retirement was extended to "60 years of age" under the guidance of the Ministry of Labor.

What is Going on Inside Japanese Firms?

Evidence from Official Financial Reports. The severity of the current recession can be more vividly portrayed through examination of what is going on inside individual firms. Our examination begins with discussion of Table 1, which updates data on large-scale Japanese firms previously gathered in Chuma (1994) by adding employment levels and corresponding rates of change from March 1994 to March 2000. The data are based on official financial reports submitted to the Tokyo Stock Exchange and all the firms are listed in the Exchange's primary section. We should note here,

[33]This subsidy (*Tokutei Kyushoku-sha Koyou Kaihatsu Josei-kin*) was introduced in 1981.

[34]Nominal expenditures were as follows (again using 1999 figures as a budgetary baseline): 1993: 71.2 billion yen; 1994: 81.0 billion yen; 1995: 185.7 billion yen; 1996: 93.1 billion yen; 1997: 57.9 billion yen; 1998: 57.1 billion yen; 1999: 138.2 billion yen.

TABLE 1

EMPLOYMENT ADJUSTMENTS IN LEADING JAPANESE FIRMS: TWO CONTEMPORARY DOWNTURNS COMPARED (MALE WORKFORE ONLY)

	1989–1994		1994–2000		1973–1978		1978–1983	
Name of company	Net change	Rate of change (%)	Net change	Rate of change (%)	Net change	Rate of change (%)	Net change	Rate of change (%)
NEC	4566	12.1	−5209	−12.3	−1567	−4.8	4887	15.7
Fujitsu	3225	6.3	−10554	−19.5	4962	18.3	5210	16.2
Hitachi	2860	3.7	−19647	−24.8	−15128	−17.6	4095	5.8
Toshiba	5357	7.7	−16997	−22.8	−6460	−9.2	1642	2.6
Mitsubishi Electric	2149	4.5	−6853	−13.7	−3514	−6.5	−2518	−5.0
Oki Electric	−1025	−7.6	−3665	−29.5	4	0.0	−1946	−13.7
Nikon	648	9.8	−589	−8.1	152	3.0	973	18.5
Canon	2340	14.7	2751	15.1	2772	55.6	4037	52.1
Pioneer	2280	31.4	−2418	−25.4	502	9.6	1388	24.3
Japan Victor	953	7.3	−2906	−20.8	−1377	−16.0	3666	50.8
Komatsu	−832	−5.4	−3022	−20.8	287	1.7	−300	−1.7
Mitubishi Heavy Industry	−315	−0.7	−4773	−10.8	−10290	−13.1	−11261	−16.4
Ishikawajima-Harima Heavy Industry	824	5.4	−3424	−21.2	−2471	−6.7	−7528	−22.0
Hitach Shipbuilding	1141	25.4	−3079	−54.6	−2923	−11.9	−4341	−20.1
Ohkuma (Machine-tool)	−341	−19.7	80	5.7	−1216	−47.6	299	22.3
Hitachi Seiki	−37	−3.2	−309	−27.4	−631	−30.5	−107	−7.4
Makino Milling Machine	32	3.5	5	0.5	7	1.1	119	18.9
Japan Air Line	505	2.4	−2811	−13.1	2881	16.5	1535	7.6
Sumitomo Metal	459	2.2	−7115	−32.9	−504	−1.6	−729	−2.4
NKK	−1655	−6.9	−10472	−47.1	−538	−1.3	−4777	−12.1
Shin-Nihon Steel	−23567	−40.5	−14803	−42.8	−4267	−5.3	−6991	−9.2
Kanebo	−986	−10.9	−5173	−63.9	−14225	−67.5	−351	−5.1
Nissinbo	−309	−4.8	−1637	−26.7	−3581	−36.7	224	3.6
Kao	540	8.1	−1091	−15.2	−199	−5.0	1003	26.5

however, that these firms are not randomly chosen. They were selected because their new and old data are well publicized either in four nationwide newspapers or in the annual Documents of Labor Unions (*Shiryo Rodo Undo-shi*, published by the Ministry of Labor), which minutely describes leading labor unions' principal activities.

The third and fourth columns in Table 1 indicate the movement of regular employees in each firm during the recession produced by the first oil crisis (1973–1978) and during the ensuing recovery period (1978–1983). Only six firms reduced the number of their regular employees by more than 20 percent during this 11-year period. In contrast, during the recent period from 1994 to 2000 (see Column 2), there were 14 firms that reduced their regular employees by more than 20 percent, even though the early period of the current Heisei Recession was not very severe (see Column 1). Moreover, with the exception of three firms, all were reducing their employees over the course of this latter 12-year period. Judging from these micro data for large-scale firms, we could say that the current recession appears to be more severe than the one produced by the first oil crisis.

This assessment based on micro data, however, seems to be inconsistent with the one based on macro data presented above. The latter indicated that employment adjustments during the Heisei Recession have been similar to or smaller than those during the 1970s crisis. To understand such an apparent inconsistency, the limitations of macro data on employment adjustments must be pointed out. As I argued in Chuma (1994), most of the employment adjustments detailed in Table 1 were carried out primarily through "soft" methods such as *Tenseki* (outplacement), ceasing to fill vacancies created by (early)[35] mandatory retirement programs (*Soki Teinen*), and reducing or stopping the employment of recent graduates. They are not officially counted, however, among the methods of employment adjustment recorded in the quarterly Survey on the Movement of the Labor Economy. Indeed, in the late 1970s, 120,000 people were separated from their jobs due to mandatory retirement, a number representing 3 percent of the total job separation figure. In contrast, in the late 1990s, the corresponding number was 310,000, or 6 percent of the total separation figure.[36] Furthermore, as is shown in Figure 8, the ratio of those unemployed due to mandatory retirement to the total unemployed population was well below 10 percent in the late 1970s, while the same

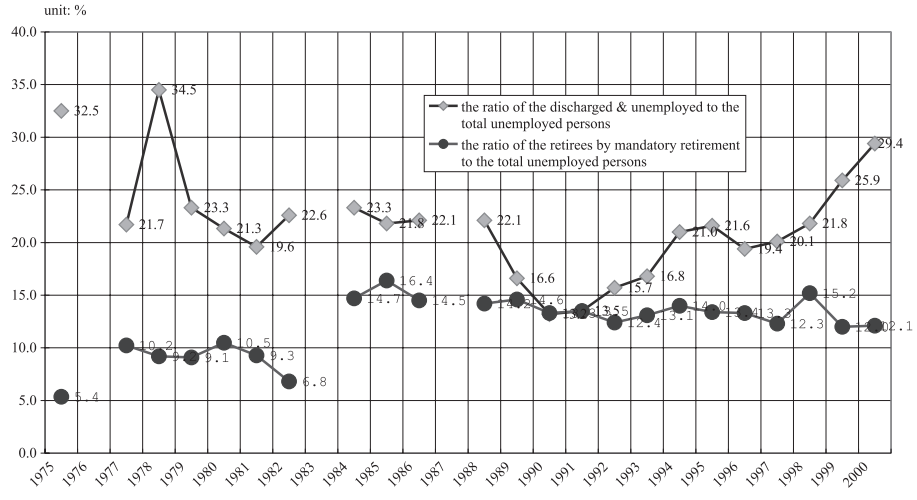
[35]As is by now well known, most (male) regular employees in Japanese large-scale firms take new jobs in medium- or small-scale firms in their late 40s or early 50s, and these smaller firms tend in turn to be subsidiaries of, or otherwise related to, their previous firms.

[36]This data comes from the Survey on Employment Trends.

FIGURE 8

THE RATIO OF THE DISCHARGED & UNEMPLOYED TO THE UNEMPLOYED WHO HAD PREVIOUS JOBS

(NOTE: COMPARABLE DATA ARE NOT AVAILABLE IN SOME YEARS)



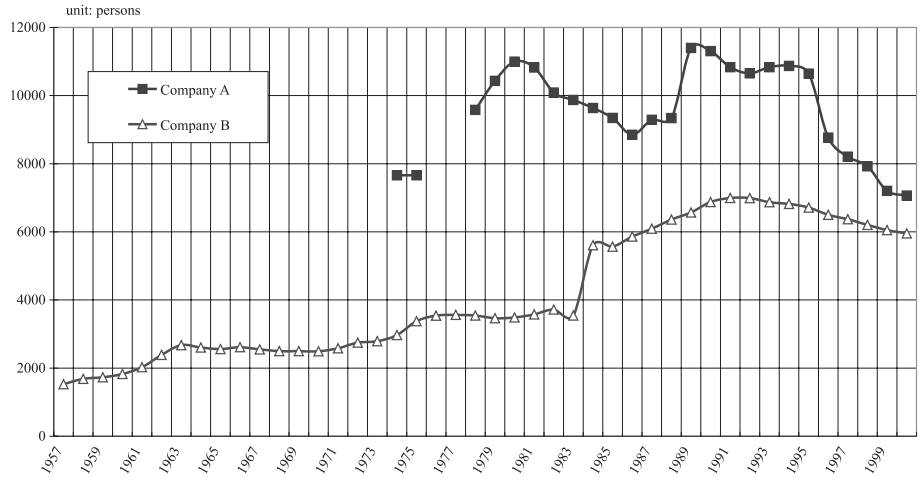
SOURCE: Special Labor Force Survey (Statistics Bureau).
NOTE: Comparable data are not available in some years.

ratio increased to 13 percent during the 1990s. This increase, again, reflected the fact that quite a few baby boomers had reached an advanced age. From this perspective, in any case, the Heisei Recession would certainly appear to be much more severe than the recession invoked by the first oil crisis.

Case 1: Wounded Large-Scale Company A. To paint a more adequate picture of what is going on inside the Japanese firms listed in Table 1, we need to look a bit further into specific cases as is shown in Figure 9. We will first examine a company (Company A) that is representative of large-scale companies in the domestic commerce sector perhaps best characterized by the General Merchandise Stores (GMS). During the current recession, Company A has faced difficulties due to depressed consumption demands as well as problems caused by the failed financial dealings conducted by one of its subsidiary firms during the bubble boom. Consequently, its business and profit levels dropped drastically in 1995 to about one-third of the preceding peak level in 1992. It suffered yet further from huge pretax losses in 1998. While the price of Company A stock stood at 3300 yen in 1990, it now (July 2000) oscillates between 300 and 400 yen.

FIGURE 9

TRANSITION IN FULL-TIME EMPLOYEES OF COMPANY A & B



SOURCE: Official annual financial reports.
NOTE: The number of full-time employees in Company A is not fully available.

Reflecting this troubled situation, Company A as a last resort offered extra severance pay to a large number of "voluntary retirees" in mid-1995. We note here that most of these voluntary retirees are involuntarily selected through "pats on the shoulder." This strategy reduced the firm's regular workforce by 18 percent during the period from February 1995 to February 2000. As an example, during 1995, about 1,200 persons were let go as "voluntary retirees." Most of these "voluntary retirees" were elderly people so that both the average tenure and age of full-time workers declined from 1995 to 1996.[37]

The workforce was further reduced mainly through (1) not filling vacancies created by (early) mandatory retirement and (2) reducing or halting the hiring of recent graduates. Company A's 10,870 regular employees in 1994 had by March 2000 fallen to 7,062, a 35 percent decline. Following the "1995 accident" of severance-pay incentives to voluntary retirees, the labor union and the company reached an agreement that voluntary (actually involuntary) retirement would no longer be promoted.

At the time of the interviews in January 1999, there were about 350 *Shukko* employees, who were counted as part of the firm's regular workforce. Among them, 220 (63 percent) worked for *Keiretsu* firms and

[37]Average tenure was 12.6 years in 1995 and 11.7 years in 1996, while average age was 34.6 years in 1995 and 34.5 years in 1996.

the rest for non-*Keiretsu* firms (most of which were arranged by the personnel office). We note here that workers can reject their *Shukko* assignments but that most people, and especially the middle aged, do not. This is generally because they eventually come to understand that once they have been nominated as *Shukko* workers, they are effectively blocked from promotion or career development within their current firm. It occasionally does happen that these people come back to the sending firm, mainly because they do not adjust well to the receiving firm. In such cases, however, the personnel department will either assign them another *Shukko* job or send them on to specific outplacement agencies.

In what follows, to illustrate how gently personnel reduction takes place in this seriously wounded large-scale Japanese firm, I itemize the most salient aspects in the recent case of a store closing in a certain large city.

In the case of store closings, the personnel department in the firm's headquarters is responsible for providing outplacement services for local regular employees as well as for part-timers. Personnel people, together with local employees, collect information about job placements. Normally, this information is collected from the local public placement office, the local office of the "Center for Industry Employment Stability,"[38] customer firms, competitors, cooperative firms, personal networks, etc. Much of time and labor are devoted to the collection of this information.

There were about 60 regular employees at this particular closed store, including a half dozen division managers. These were the "national" employees, who were willing to move anywhere nationwide and actually did move after the closing of one of Company A's other stores. There were also about 20 subsection managers, most of whom were less than 40 years of age at that time. About half of them have moved to other stores of Company A, while half have stayed in this local city and found new jobs. They were offered severance pay with attractive premiums and presumably owned their own homes. Their new salaries were apparently 70–80 percent of their old ones because they usually ended up working for smaller-scale firms than before. Female subsection managers took this option in all instances. New, attractive jobs in the other regions were presented to them, but they rejected these opportunities mainly because their resulting commutes would be over half an hour by car.

Company A has an official rule that store closings mean discharging part-timers. However, after giving them formal notice that their employment contracts were coming to an end, the company provided outplacement services even for part-timers. Part-timers themselves usually expect to

[38]The special public organization that freely provides non-*Keiretsu* outplacement services.

receive such services in times of emergency. Not surprisingly, however, the firm was unable to find new jobs for all part-timers.

Case 2: Wounded Large-Scale Company B. Company B is a large-scale maker of testing and measurement instruments, famous worldwide for its system of factory automation. During the current recession, facing deeply depressed investments in machinery and equipment, Company B has experienced a rapid decrease in both business and profits. Indeed, both joint business and recurring profits became negative, resulting in a large pretax loss in March 1999. Such losses were unprecedented for Company B in its remarkable post-war history. After March 1999, the firm's performance improved somewhat, with the level of joint business and recurring profits recovering to 40 percent and 60 percent, respectively, of their peak levels in 1991. While the highest stock price was 2170 yen, attained in 1989, by July 2000 it had fallen to about 1000 yen.

In contrast to Company A, the number of regular employees in Company B has not changed very much. Indeed, the workforce actually increased by 4 percent from 1989 to 1994. However, as the situation deteriorated from 1994 to 2000, that level declined by 13 percent. These personnel reductions were achieved mainly through cutbacks on new hires and through unfilled vacancies. Furthermore, Company B is famous, even among Japanese firms, for its warmhearted practice of guaranteeing job security to all regular employees until the age of 65. Indeed, even during the current severe recession, Company B has made great efforts to sustain that practice.

Company B has about 30,000 employees worldwide, of whom some 23,000 belong to its subsidiaries or related firms. When interviews were conducted in January 1999, there were about 7,000 regular employees, of which 1,300 (19 percent) were *Shukko* employees. About 300 of these were young employees sent off for educational or training purposes. Fifty to 60 percent of the remaining *Shukko* employees were people who had formerly served Company B as production workers. Company B follows the strategy of constructing its production divisions as subsidiary or otherwise related firms to the greatest possible extent. The company's ratio of production workers to total employees, which was 40 percent 10 years ago, fell to 27 percent by 1999. Factories have also been relocated in several foreign countries.

In what follows, we detail Company B's warmhearted job-security system.

The age of mandatory retirement is 60 years of age. Those regular employees who wish to take advantage of job-security guarantees are generally accommodated in a special subsidiary firm. Although they

continue to do almost exactly the same jobs as they did before mandatory retirement, they become temporary-help workers. This system was introduced 30 years ago.

As employees of that special firm, elderly workers can earn almost half of their premandatory retirement salaries, as well as a reduced public pension.[39]

Thirty percent of the company's retirees chose to work for this special subsidiary firm. Most of these were production workers. Another 30 percent were typically *Shukko* employees who planned to stay until the age of mandatory retirement (60) and then to become *Tenseki* (transferred) employees thereafter, working at the same firms for which they had served as *Shukko* employees. The remaining employees either completely retired from the labor market or found other jobs on their own.

In the future, however, maintenance of the current system was expected to be very difficult, due above all to the rapid increase of elderly workers. Already by 1999, positions in subsidiary or related firms were often lacking. Thus, over the past four or five years the company has begun to send their *Shukko* employees to non-*Keiretsu* firms.

In the case of *Shukko* employees, as a result of an agreement with the labor union, the company is required to win the worker's consent. The labor union itself also verifies whether workers have voluntarily accepted their *Shukko* options. In those cases where workers say they do not accept the new arrangements, the *Shukko* are cancelled immediately. The minimum period of *Shukko* is two years and can be extended up to six years. If an employee so desires, can be further extended. The current average period of *Shukko* arrangements is about four years.

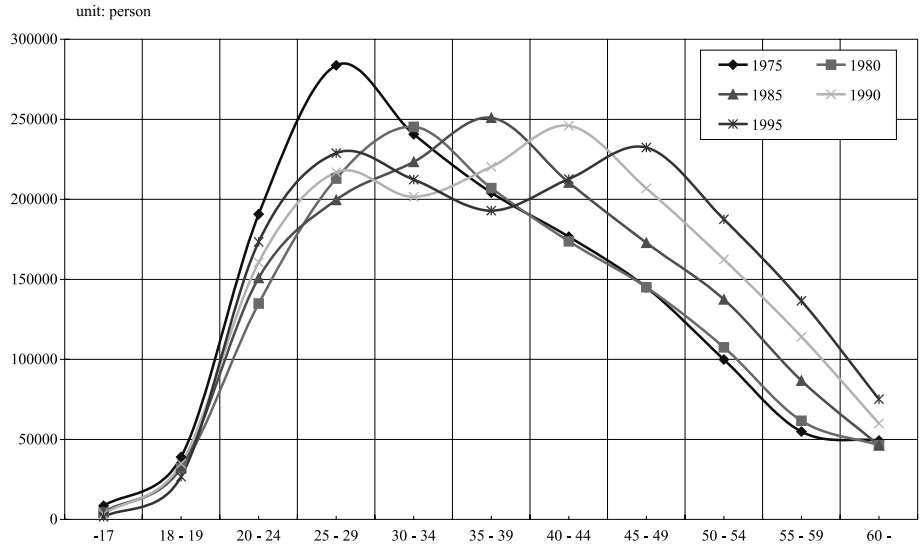
Structural Constraints Behind Record Unemployment Rates

What we have sought to demonstrate up to this point, from both macro and micro perspectives, is just how severe the ongoing Heisei Recession has been. The severity of this crisis should be understood not only through business-cycle factors, however, but also through structural ones. In this section we discuss three important structural factors: the rapid aging of baby boomers, popularized "lifetime employment" practices, and legal measures that strengthened employment security after the first oil crisis.

[39] According to the current public pension system, whenever eligible people apply for public pensions while still working, the originally guaranteed pension amounts are reduced according to an established set of rules.

FIGURE 10

TRANSITION IN THE AGE STRUCTURE OF THE MALE INDUSTRIAL WORKFORCE



SOURCE: Wage Census (Ministry of Labor).

Rapid Aging of Baby Boomers. Figure 10 shows the age structure of the male workforce between 1975 and 1995 at five-year intervals. This data is drawn from the Wage Census (*Chingin Kozo Kihon Tokei Chosa*, published by the Ministry of Labor), a report that basically covers the evolution of ''regular workers.'' In this figure, the ''baby boomers'' were centered within the 25–29 age group in 1975. At each interval, then, they shifted one age group, ending up in the 45–49 age group in 1995.[40] By 2000, of course, they had entered the 50–54 age group.

As the baby boomers attain an advanced or old age, the rising labor costs are beginning to burden Japanese firms, mainly because both tenure and age effects on wage profiles are very much more pronounced for full-timers in Japan. This growing burden has been magnified by the current severe recession. This, then, is one of the reasons strong pressures for personnel reduction exist in many Japanese firms.

Expansion of Lifetime Employment Practices. The burden resulting from baby boomers' advancing age could be mitigated to some extent if mobile

[40]Although the figures are not shown here, the age structure of the female workforce is quite different. It reflects the typical M-shaped pattern of labor force participation ratios, with the highest hump always to be found in the 20–24 age group and the second highest in the 40–44 age group.

external labor markets existed in Japan. However, a tendency to prolong job tenure also took hold in the 1980s and early 1990s. Moreover, this phenomenon has occurred at the level of small- and medium-scale firms as well as that of large-scale firms, and in all sectors of the economy. These patterns were demonstrated in Chuma (1998). Table 2 contains formal definitions of "lifetime employment."

With the schema shown in Table 2, we can then analyze shifts in the percentages of "lifetime employees" by age cohort and education level over time. In 1980, for example, the ratio of workers categorized as lifetime employees for the 50–54 age cohort exceeded 50 percent only in the case of male employees who were university graduates and worked for firms with more than 1,000 employees. In 1994, by contrast, more than 50 percent of both high school graduates working for firms with more than 1,000 employees and university graduates working for firms with more than 300 employees also qualified as lifetime employees. Comparisons of this sort suggest that "lifetime employment" practices expanded in the early 1990s beyond 1980s levels. This finding is also consistent with the previously indicated fact that separation rates for "regular workers" were much lower in the 1980s and 1990s than in the 1960s and 1970s.

Just as a huge number of baby boomers began reaching an advanced or old age in the 1990s, then, and in the midst of the Heisei Recession, "lifetime employment" practices became more widespread. This is another reason there has been strong pressure for personnel reduction in many Japanese firms.

Legal Measures Strengthening Employment Security.[41] The Civil Code of Japan stipulates that employers can freely discharge their employees and vice versa. The Labor Standard Law also permits employers to discharge their employees after 30 days' notice or compensation. Actual mass layoffs of full-timers due to financial difficulties, however, have been effectively limited by case law, which has established what is known as the "Legal Principle Governing Abuse of the Employer's Right of Dismissal" (*Kaiko-Ken Ranyo Hori*). This legal principle was comprehensively strengthened by the national legislature after the first oil crisis. As is indicated in Sugeno (1996), this "Legal Principle" has severely constrained Japanese firms from discharging full-time employees.

This principle established four prerequisites that employers must meet before proceeding to mass layoffs of regular workers: (1) managerial necessity of workforce reductions (i.e., firm operating at a loss), (2) fulfillment of employer obligations to make every effort to avoid such

[41]This section draws on Sugeno (1996) and Chuma (1999).

TABLE 2
LIFETIME EMPLOYMENT DEFINITIONS

	Education Category			
Age Category	J.H.G	H.S.G	J.C.G	U.V.G
40–44	25 + (years of tenure)	22 + (years)	:20 + (years)	:17 + (years)
45–49	30 + (years of tenure)	27 + (years)	:25 + (years)	:22 + (years)
50–54	35 + (years of tenure)	32 + (years)	:30 + (years)	:27 + (years)
55–59	40 + (years of tenure)	37 + (years)	:35 + (years)	:32 + (years)

NOTE: J.H.G = junior high school graduate; H.S.G = high school graduate; J.C.G = junior college graduate; U.V.G = university graduate.

dismissals (e.g., discharging temporary workers, job rotation and/or *Shukko*, recruitment of voluntary retirees), (3) rationality of selection rules for dismissal,[42] and (4) validity of dismissal procedures.[43] Moreover, in cases where dismissals are judged to be illegal, the compromised firm must restore and maintain employees' previous positions and fully compensate them for wages lost during the legal dispute. This is one of the reasons personnel reduction plans tend to presuppose prior labor-manager consultation or agreement in Japanese firms.

We also note here that laying off full-time employees through attractive severance-pay plans is not legally permitted as an acceptable method of resolution. In other words, instead of monetary damage compensation, only specific performance criteria in employment are legally permitted. This is in marked contrast with the U.S. rule (see Malcomson 1999:2295).

Summary and Conclusion

In this article we have described the severity of the Heisei Recession and depicted the resultant harsh modes of employment adjustment practiced by Japanese firms. As a benchmark for comparison, we referred as frequently as possible to the recession that followed the first oil crisis, the worst in the country's post-war history.

Judging from various macro-economic indices about the state of labor markets, and despite the record unemployment rate of 4.7 percent in 1999,

[42]For example, selecting employees based solely on their performance assessments is generally not permitted.

[43]Regardless of whether a given workplace is unionized, the company in question must carry out consultations with worker union representatives about necessity, time schedule, scale, method, etc., prior to mass dismissals.

the severity of the Heisei Recession appeared similar to, or even milder than, the 1970s crisis—at least until now. The investigation of macro indices regarding employment adjustments further supported that judgment.

However, the micro employment data from individual (large-scale) firms revealed the fact that personnel reduction during the late 1990s had been conducted on a mass scale well beyond that during the 1970s crisis. This macro-micro inconsistency emerges because the macro indices of employment adjustment do not include attention to soft methods such as outplacement, ceasing to fill vacancies created by mandatory retirement, and reducing or halting the hiring of recent graduates. The increasing prevalence of these soft methods of employment adjustment was also confirmed by the considerable decline of job openings for recent graduates in the 1990s, as well as by firms' increasing recourse to mandatory retirement programs during the last three decades. In this sense, then, the current situation is much more severe than the macro data appear to indicate, although the current record unemployment rate does of course more accurately reflect this fact.

Finally, in addition to business-cycle factors, we identified three structural constraints that have contributed to growing pressures toward personnel reduction in Japanese firms: the rapid aging of baby boomers, the expansion of "lifetime employment" practices in the late 1980s and 1990s, and legal measures strengthening employment security in the years following the first oil crisis. Of these structural constraints, the first factor, attuned to demographic dynamics, has been emphasized repeatedly throughout the article. Indeed, it can be said that the salience of the last two factors is in good part also a consequence of those same demographic dynamics. Moreover, as an enormous number of baby boomers reached middle or more advanced age in the 1990s, the efficiency of Japanese-style human resource allocation methods—such as *Shukko*, *Tenseki*, and internal redeployment—declined significantly. This is undoubtedly one reason why some people now go so far as to say that lifetime employment is dead or dying. Although these are exaggerated statements, they reflect very real changes currently underway in Japan.

References

Center for Industry Employment Stability. 1997. *Research Report on Actual Situation of Shukko-Iseki and Questionnaire Survey* [*Shukko-Iseki Jittai Anketo Chosa Hokoku-Sho*].

Chuma, H. 1994. *Japanese Employment Adjustment System* [*Kensho: Nihon-gata Koyo Chosei*]. Tokyo: Syuei-Sha.

———. 1999. "Economic Analysis of Legal Principle for Abuse of Employer's Right of Dismissal" [*Kaiko-ken Ranyo-Hori no Keizai-Bunseki: Koyo Keiyaku-Riron no Shitenkara*]. In *Economic*

Analysis of Corporation Law [*Kaisha-Ho no Keizai-Bunseki*], edited by Yanagawa and Kanda Miwa. Tokyo: University of Tokyo Press.

Estevao, M., and S. Lach. 1999. *The Evolution of the Demand for Temporary Help Supply Employment in the United States*. NBER Working Paper Series No. 7427.

Japan Institute of Labor. 1999. *Actual Situation of Shukko-Tenseki and Its Survey* [*Shukko-Tenseki no Jittai to Tenbo*]. Research Report No. 126.

Koshiro, K., and Rengo Soken, eds. 1995. *History of Industry, Employment and Labor: The Five Post-War Decades* [*Sengo 50 Nen: Sangyo, Koyo, Rodo-Shi*]. Tokyo: Japan Institute of Labor.

Malcomson, J. M. 1999. "Individual Employment Contracts." In *Handbook of Labor Economics*, edited by O. Ashenfelter and D. Card, Vol. 3B, pp. 2374–2437. North-Holland.

Muramatsu, K. 1999. "The Employment Situation in the Late 1990s and the Critical Evaluation of Mobile-Labor-Market Proponents" ["*90-Nendai kohan no Koyo Josei to Ryudoka-Ron no Hihanteki Kento*"]. *Nanzan Keizaikenkyu* 14(1 & 2):301–17.

Ministry of Labor. 1970. "*20 Years of History of Public Relief Works* [*Sitsugyo Taisaku Jigyo 20 Nenshi*]." Rodo-Horei-Kyokai.

Shinozuka, Y. 1985. "The Role of Employment Adjustment and Employment Adjustment Subsidies" ["*Koyo-Chosei to Koyo-Chosei Jyosei-kin no Yakuwari*"]. *Nihon Rodo Kyokai Zassi* 317:2–18.

Sugeno, K. 1996. Laws in Employment Society [*Koyo-Shakai no Ho*]. Yuhikaku.