

LABOR ADJUSTMENT POLICY IN JAPAN*

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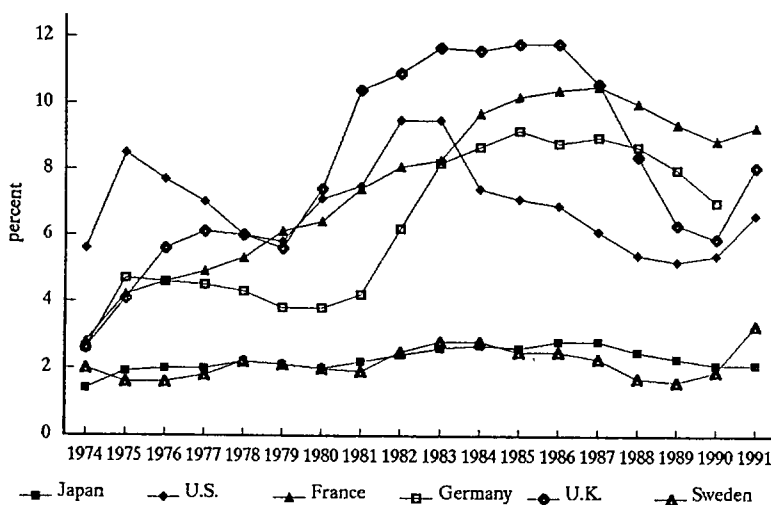
Abstract

One of the characteristics of the Japanese economy, when compared to other industrialized countries, is its low unemployment rate. After rejecting the contention that the low rate of unemployment is caused by a statistical artifact, we explain it by the use of employment-adjustment policies undertaken on three levels: intrafirm, inter-firm and government. Both macro data and a company case-study are presented to support the argument.

Introduction

Looking at an international comparison of unemployment rates (Fig. 1), we find that in Japan this rate is much lower than in other industrialized countries. At the same time,

FIG. 1. UNEMPLOYMENT RATE



* In writing this paper I benefitted from discussions with Hiroyuki Chuma, Naoyuki Kameyama, Asao Mizuno, Kuramitsu Muramatsu, Konosuke Odaka, Akira Ono, Wataru Osanai, Haruo Shimada, Eiko Shino-tsuka, Hideo Sugawara, Ryo Yamada, and Hironori Yano. None of them shares any responsibility for the paper.

the Japanese unemployment rate has a smaller amplitude and does not change as a result of changes in the business cycle.

Although Japan is not unique in this respect (unemployment in Sweden shows much the same pattern), the low unemployment rate in Japan has to be explained. In this paper we deal with this question by first discussing the possibility that the difference is only a statistical artifact, derived from a different definition of the unemployment rate. After reaching the conclusion that this explanation cannot be maintained, we look at employment adjustment policy as the cause of this phenomenon.

I. *Is the Low Unemployment Level in Japan a Statistical Artifact?*

This question has been the subject of several studies conducted over a period of more than a decade, focussing mainly on the comparison between the Japanese and U.S. definition of unemployment.

Odaka (1980) pointed to the following differences between Japanese and U.S. definition of the labor force and of the unemployed:

- 1) in Japan youngsters of age 15+ are included in the labor force, as are those belonging to the self-defence forces, while in the U.S. the lower age limit is 16 and military personnel is excluded.
- 2) In Japan unpaid family workers are included in the labor force if they worked one hour or more during the survey week, while in the U.S. they are included only if they worked 15 hours or more.
- 3) According to the U.S. definition, workers laid off or those who are waiting to start a new job in 30 days are regarded as unemployed, while in Japan they are regarded as "employed" or "not in the labor force" respectively.

Despite these differences Odaka comes to the conclusion that the Japanese published statistics can be accepted, and that "The low level and small amplitude ought to be explained by the inherent mechanisms of the labor market itself." (p, 503).

This view was challenged by Taira (1983), who adjusted the Japanese unemployment rate according to the U.S. definitions, for the period 1977-1980, based on the Special Labor Force Survey. He found that the Japanese adjusted unemployment rates are nearly double the conventional ones, and that while U.S. unemployment rates are still higher, the difference is much smaller than in the case of the published statistics.

The pendulum moved again in the opposite direction with Sorrentino (1984), who argued that Taira's conclusions stem mainly from the fact that he used data collected in March. This is because March, the last month of the fiscal year, is an unusual month, when firms hire new workers. The main reason for the rise in the Japanese unemployment rate in Taira's study lies in the inclusion of school graduates, who wait for employment within 30 days, in the unemployment figure, thereby causing a substantial increase in the unemployment rate. She concludes that although the Japanese definition of unemployment is somewhat more restrictive than the U.S. definition, "the regular monthly survey gives a close approximation of the rate of unemployment under the U.S. concepts" (p. 26).

It is possible to sum up these studies by saying that, while standardization of definitions

may well reduce the gap in the unemployment rate between Japan and other countries (notably the U.S.), a large difference still remains, calling for explanation by other factors. Here we suggest that the explanation lies in the employment adjustment policy conducted in Japan by firms, with the active assistance of the government.

II. *Whai Is Employment Policy?*

First of all we have to define what we mean by "employment policy" and show how it differs from other measures that have a direct or indirect effect on employment levels. In particular, we have to distinguish between employment policy and macroeconomic policy. This distinction is depicted in Fig. 2.

Figure 2a depicts a hypothetical situation where Y_1 is potential output, Y_2 —output before macro-economic policy is performed and Y_3 —actual output, after the application of macro-economic policy. The vertical distance $Y_3 - Y_2$ can be used as a measure of the success of macro-economic policy.

Figure 2b describes the size of unemployment corresponding to the various output definitions: $U(Y_1)$ —unemployment with potential output, $U(Y_2)$ —unemployment before

FIG. 2. OUTPUT AND UNEMPLOYMENT

FIG. 2a

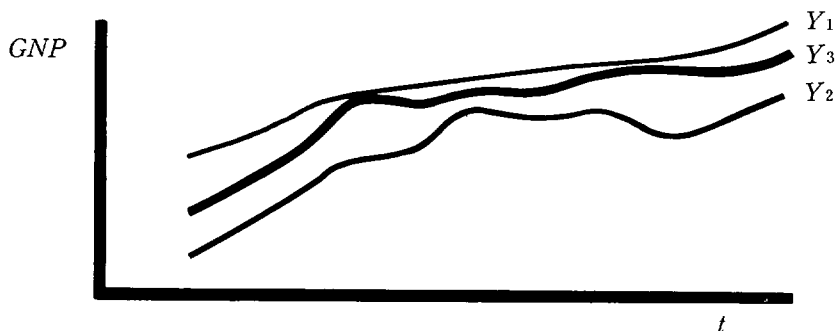
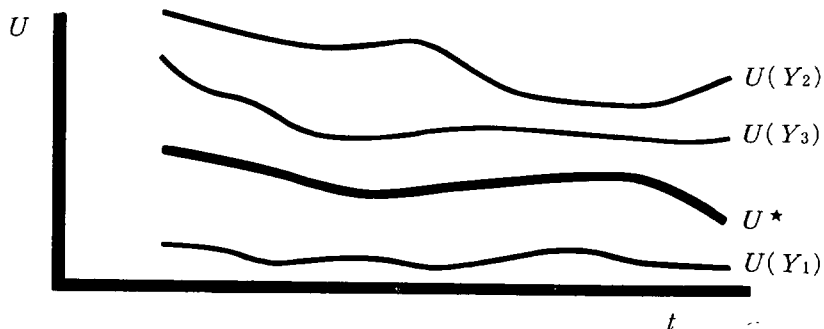


FIG. 2b



macro-economic policy is applied, $U(Y_3)$ —unemployment after macro-economic policy is applied but before employment policy is implemented, U^* —actual unemployment, after the use of both macro-economic and employment policies.

We can regard $U(Y_2) - U(Y_3)$ as a measure of the effect of macro-economic policy on employment, and $U(Y_3) - U^*$ as a measure of the effect of employment policy on unemployment.

In Japan we can distinguish between three kinds of employment policy:

- a) intra-firm employment adjustment,
- b) inter-firm employment adjustment,
- c) government employment adjustment policy.

Let's take a look at each of them.

III. *Intra-firm Labor Adjustment*

It has been pointed out that the Japanese firm is not tailored according to the neo-classical model, where labor is regarded as a variable input, easily adjusted to the production level, derived from considerations of profit maximization. As a part of Japan's "industrial culture" (Shimada, 1992), employment security is regarded as an important objective and management goes to a great length in devising measures to keep its regular work-force intact. Therefore, if, at a certain point of time, there is labor redundancy, various measures are taken to refrain from firing regular workers. The most common measures are:

1. suspension of recruitment of new workers.
2. reduction of overtime work.
3. reduction of temporary employees.
4. transfer of redundant workers to other sections of the company or to other companies.
5. reduction of bonus payments.
6. Temporary separation (*ichiji kikyū*). Under this measure workers are told to stay home, receiving a part of their salary, or work is stopped in the whole firm for a certain number of days. The worker receives 90% of his wage if he is retired for one week, 85% for 1–2 weeks, 80% for 2 weeks to 1 month, 70% for 1–2 months and 60% for more than 2 months.

The retention of regular workers is justified on economic grounds: if the present slump is regarded as a temporary event, the company, who has trained and improved the quality of its workers, endowing them with firm-specific skills, does not want to see this investment lost when these workers are fired, and new workers have to be recruited and trained.¹

Let us look at a concrete case and see how these intra-firm measures are implemented:

IV. *A Case Study—Company A*

Company A is a large company producing electric appliances with more than 70,000 employees nation-wide. As is often the case in Japanese firms, workers are trained to per-

¹ Koike (1983) regards unemployment of workers with firm-specific skills as having a high social cost, since they have difficulty in finding alternative employment.

form several jobs, and can be transferred relatively easily from one job to another. Inflow of workers into the firm is mainly in the form of new graduates, who are hired on April 1 of every year, but there is also a certain inflow of non-regular employees. The retirement age is 60 (56 for executives), and between 2,000 and 3,000 workers are leaving the company every year. Reflecting a trend witnessed in Japanese manufacturing industry, there has been a decline in the number of annual regular working hours, from 2,088 in 1970 to 1,936 in 1992. Some of the pertinent variables are shown in Table 1.

Adjustment of labor input to changing economic conditions is done in several ways:

1. Regulating the number of new graduates entering the company. As seen in Column (1), there was a substantial reduction in the number of new workers between the years 1974 and 1976 and between 1986 and 1988.

As seen in Fig 3, there is a close correspondence between the movement of profits in year t and the change in the number of workers entering the company in year $t+1$.

It is interesting to note that, while the number of new entrants has changed with the ups and downs of the business cycle, there was no corresponding change in the number of workers leaving the company. In Fig. 4, changes in the rate of profit and in the number of workers leaving the company are given, but no correspondence between the two is found, indicating that changes in the number of retiring workers is not regarded as an adjustment tool.

2. Changes in overtime working hours. This has taken place mainly between 1991 and

TABLE 1. COMPANY A

	Joining workers (1)	Leaving workers (2)	Bonus months (3)	Profit/Sales (%) (4)
1970	9,289	9,284	5.23	2.7
1971	4,507	7,805	4.71	1.8
1972	1,823	7,142	5.05	3.0
1973	3,876	7,378	6.00	4.2
1974	4,299	5,653	5.39	2.1
1975	2,298	3,846	4.76	1.3
1976	852	3,051	5.01	2.4
1977	2,407	3,505	5.00	2.3
1978	1,000	1,958	5.05	2.9
1979	1,842	2,741	5.20	5.3
1980	2,113	2,717	5.25	5.4
1981	2,301	2,322	5.30	5.3
1982	2,757	2,006	5.22	4.7
1983	2,727	1,986	5.30	5.2
1984	2,715	1,982	5.45	5.7
1985	3,283	2,078	5.34	3.2
1986	3,352	2,102	5.03	1.7
1987	2,040	2,058	5.04	2.4
1988	1,794	2,165	5.30	5.1
1989	2,849	2,247	5.53	6.6
1990	3,976	2,391	5.65	5.4
1991	4,264	2,815	5.53	2.2
1992	4,132	2,543	5.22	1.7

Source: company A.

FIG. 3. NEW WORKERS AND PROFIT

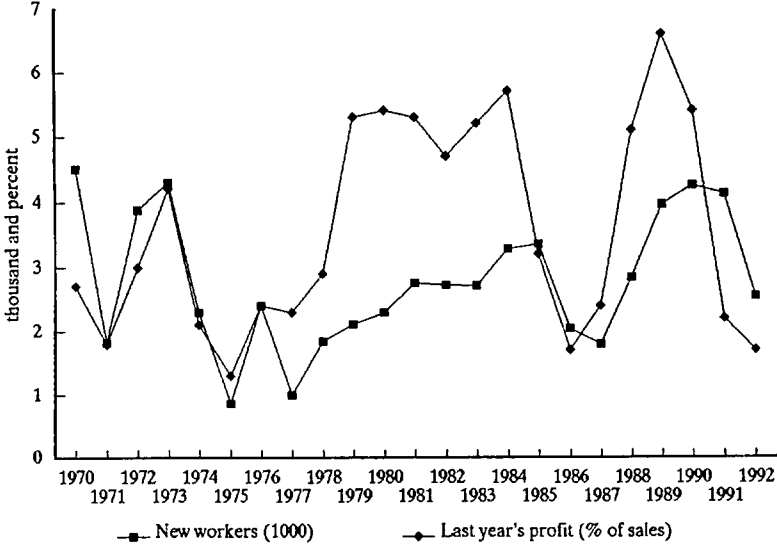
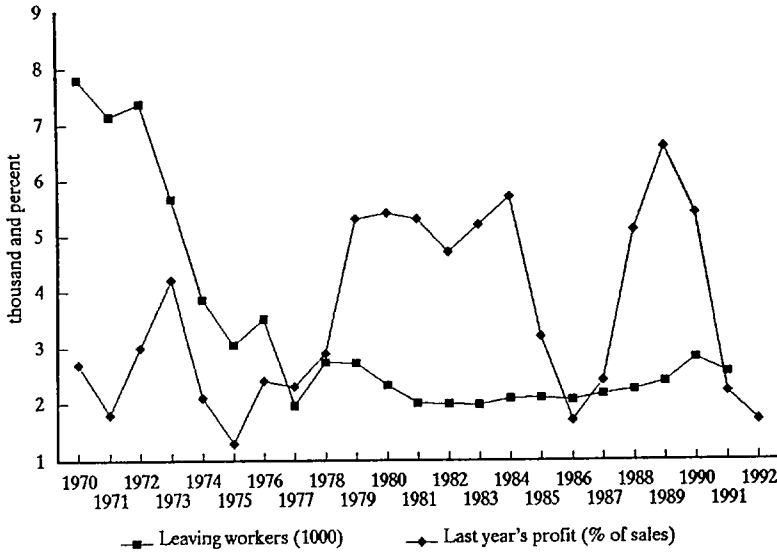


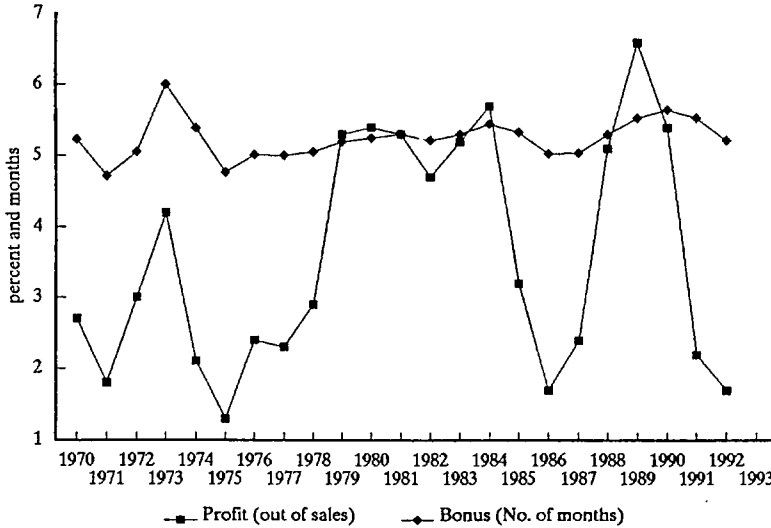
FIG. 4. LEAVING WORKERS AND PROFIT



1992.

3. Reduction in the amount of bonus payments. As seen in Fig. 5, there is a correlation between changes in the profit rate and changes in bonus payments. However, it can be seen that changes in bonus payments are small in relation to the business cycles. It was argued by Mizuno (1983) that adjustment of labor cost to business conditions is done mainly through wage flexibility and less through bonus adjustment.

FIG. 5. PROFIT AND BONUS



4. Temporary separation (*ichiji kikyū*). This device was mainly used in 1974, when the company received government subsidy for this purpose.

5. Transfer of labor to other plants, using a scheme of intra-firm subsidy (*shanaï koyō joseikin*): when there is redundancy of labor in one plant, workers are transferred to another plant for a period of 6 months, often doing a different job. The plant accepting the worker receives a “subsidy” from the company’s main office. The transfer is done with the consent of the worker and the endorsement of the company’s trade union. After spending 6 months at another plant the worker comes back to his original work-place.

V. Inter-firm Employment Adjustment

As is well known, Japanese companies often belong to an industrial group (*keiretsu*). One of the benefits of belonging to such a group is the possibility of sending redundant workers to another company for a limited period of time (*shukkō*). The duration and conditions of employment as well as the worker’s wage and fringe benefits are determined by negotiation between the two companies. Often, when the wage in the receiving company is lower than that of the source company, the difference is borne by the latter.

To facilitate such inter-company transfers, even beyond *keiretsu* boundaries, the Center for Industrial Employment Adjustment (*sangyō koyō antei centā*) was established in 1975. The Center has 32 offices all over Japan which conduct, twice a year, a survey of companies with redundant and insufficient workers. This information is sent out to companies who, through mutual negotiations, enter into temporary transfer agreements. Data about workers transferred by industry for the period 1989–91 is presented in Table 2.

In a survey made in 1990, it was found that 48.6 percent of the workers transferred to other companies were between age 35 and 55. The direction of movement among firms

TABLE 2. TRANSFERRED WORKERS BY INDUSTRY* (1,000)

Total	Manuf.	Transport & commun.	Wholesale & retail	Finance & insur.	Services	Others	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	
percentage distribution							
1989	316.9	24.1	6.0	38.3	4.7	25.7	0.8
1990	399.9	20.7	7.2	42.0	3.8	24.7	1.6
1991	415.9	29.2	8.4	25.4	7.7	28.1	1.2

*Excluding construction.

Source: Industrial employment adjustment center.

TABLE 3. TRANSFER OF WORKERS BY FIRM SIZE, 1990 (%)

	1000+	300-999	100-299	30-99	5-29
	(1)	(2)	(3)	(4)	(5)
Sending firm	47.4	18.1	4.4	10.7	12.2
Receiving firm	7.4	13.8	12.2	35.0	27.8

Source: same as Table 2.

is shown in Table 3. As can be seen, the direction of transfer is from large to small companies, mainly subsidiaries and sub-contractors.

VI. The Government Employment Adjustment Policy

The present system of employment adjustment subsidy (*koyō chōsei joseikin*) was started on January 1, 1975, based on the Employment Insurance Law, which replaced the Unemployment Insurance Act. The change in the name of the law indicates a different attitude towards the problem of unemployment. According to article 1 of the law:

“The purposes of the Employment Insurance are to stabilize the livelihood of workers by granting necessary benefits to them when they are out of employment and to promote their employment in such ways as facilitating their job seeking activities and at the same time to prevent unemployment, improve the employment situation, increase employment opportunities, develop and improve workers’ capacities, and promote their welfare, with a view to contributing to the stabilization of employment of workers.”

In order to prevent unemployment, a system of employment adjustment subsidies was devised, providing assistance to employers in the case of temporary work-stoppage.² In order to receive the subsidy, a firm has to belong to a “designated industry” (*shiteki gyō-shu*). Designation is done by the Ministry of Labor, and in order to qualify for it the following conditions have to be met:

² Other types of assistance to employers are also provided by the Law. These include subsidies for re-employing old and disabled workers after the retirement age, preparing retiring workers for continuous employment after retirement and special projects for environmental improvement of the work-place. Here we are concerned only with the employment adjustment subsidy (*koyō chōsei joseikin*).

(a) Production and labor hours went down by 5% in the last three months, relative to the previous three months, or went down by 10% in the last month, relative to the previous month. Or (b) the same indicators went down by 10% in the last three months, relative to three months a year ago, or went down by 20% in the last month, relative to the same month in the previous year.

The designation period was 6 months, with possible extension of 3 months at a time. The subsidy amounted to 2/3 of the wage paid by the firm for small and medium size firms and to 1/2 of the wage for large firms. Payments were limited to 75 days.

At first this policy was aimed at short-term adjustment and was provided only for cases of temporary work-stoppage. However, as time passed, coverage was broadened to include measures related to long-term industrial structural changes, namely temporary transfers and retraining of workers. In October 1977 the designated period was extended to 3 years, when the reason for giving the subsidy was a change in the main business of the firm. In October 1978 the designated period for business fluctuations was extended to one year, and in 1981 there was an extension of the designated period for change of business to 5 years. In 1993 the amount paid was increase to 3/4 of wages for medium-small companies and 2/3 for large companies.

The subsidy is financed by employment insurance premiums in the following way: the total premium amounts to 1.45% of wages. Out of this sum 1.1%, paid equally by employers and employees, is used for unemployment benefits. The remaining 0.35% is used for payment of the employment adjustment subsidy and is paid by the employer.

Since this payment is similar to an employers' tax, the actual incidence depends on the elasticity of demand and supply for labor. However, the fact that the nominal payment

TABLE 4. DESIGNATED FIRMS AND EMPLOYMENT ADJUSTMENT SUBSIDY

	Designated industries (100) (1)	Workers (1000) (2)	Firms (%) (3)	Share of: Workers (%) (4)	Subsidy (million yen) (5)
1975	281	7,218	31.2	31.0	55,225
1976	71	1,618	7.2	7.0	5,433
1977	32	856	3.1	3.5	3,292
1978	218	3,422	20.4	14.6	6,797
1979	207	2,941	18.3	12.5	2,427
1980	38	508	3.1	3.1	2,747
1981	153	1,699	11.9	6.6	9,331
1982	326	3,664	24.3	14.5	9,886
1983	343	4,701	24.7	18.0	16,170
1984	241	3,185	17.1	12.0	6,337
1985	206	2,370	14.3	8.8	4,777
1986	90	1,661	6.3	6.8	19,832
1987	118	2,322	7.9	8.4	39,279
1988	76	1,479	5.0	5.3	26,565
1989	54	652	3.4	2.3	16,379
1990	62	634	3.8	2.1	4,982
1991	25	280	1.5	0.9	2,332
1992	0	0	0	0	3,283
1993	85	1,957	4.7	5.9	

Source: Ministry of Labor.

TABLE 5. RECEIVERS OF EMPLOYMENT ADJUSTMENT SUBSIDIES

	Work-stop		Training		Transfer	
	No. of compan.	No. of workers	No. of compan.	No. of workers	No. of compan.	No. of workers
	(1)	(2)	(3)	(4)	(5)	(6)
Total	2,177	106,823	373	20,742	42	308
Medium-small companies	2,019	67,045	228	6,009	12	47
Large companies	158	39,778	145	14,715	30	261

Medium-small companies are companies with capital of less than 100 million yen (10 million yen in retailing and services, 300 million yen in wholesaling) or with less than 300 regular workers (50 workers in retailing and services, 100 workers in wholesaling). Large companies are all other companies.

Source: Ministry of Labor.

is done by the employer serves to make the point that it is his responsibility to keep the worker on the job.

The number of designated industries, the number of workers they include and subsidy payments for the period 1975–1993 are presented in Table 4.

As can be seen, a massive use of the subsidy was made after the first oil shock, when more than 30 percent of firms and workers were included in designated industries. Starting in 1986, the percentage of both firms and workers went down below 10 percent, but subsidy payments reached a peak in 1987, at the time of the recession brought about by the yen's high value (*endaka*). The explanation for the low number of industries lies in the fact that at that time only a few large industries, notably iron and steel, were affected by the recession. The use of employment adjustment subsidies went down during the period of the bubble economy, and reached an all-time low of no designated industries in 1992, but with the post-bubble recession it went up again.

Data on the actual payment of the employment adjustment subsidy are given in Table 5 for the month of August 1993. Medium-small companies are the main receivers of the subsidy for temporary work-stop, while large companies obtain the bulk of the subsidy payments for training and temporary transfer of workers.

VII. *The Effect of Government Employment Policy*

To what extent is the government's employment adjustment policy actually effective in reducing unemployment in Japan? The answer to this question is not simple, but an attempt was made to give a quantitative assessment to this problem. This was done by dividing the total amount of government subsidy by the average annual wage, in order to estimate the number of full-time workers that can be supported by the subsidy. This calculation shows that in 1983 only about 60,000 workers could be employed with the aid of the employment adjustment subsidy, a fairly small number (Shinotsuka, 1989, p. 131).

However, it seems that this assessment, while attempting a quantitative measure, leaves out some of the most important elements of this policy. As was pointed out, the desire to keep the work-force and refrain from firing workers, is first and foremost the target of the company itself. The action of the government can be regarded as having a signalling effect: it signals that the government supports the company in its desire to keep the regular

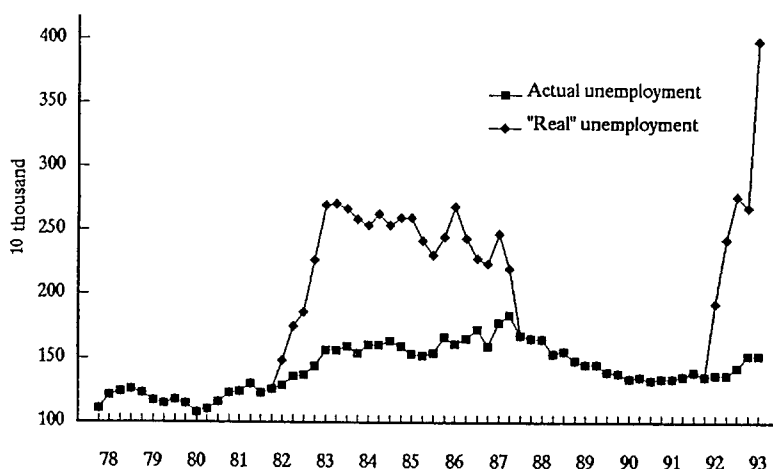
workers from being unemployed. This kind of signalling effect has been important in other areas within the Japanese economy in the relation between the government and the private sector. For example, the indicative role of economic planning by the EPA, particularly in the 1950's and 1960's.

Another way to measure the effect of the Employment Insurance Law on the labor market was carried out by Hashimoto (1993). He estimated the sensitivity of employment and hours of work to the business cycle before and after the implementation of the Law. His conclusion is that the effect of the law was to reduce employment sensitivity and to increase hours of work sensitivity. In other words, after 1975 adjustment to changes in business conditions was done by a limited adjustment of the number of workers and a larger change in the number of hours worked.

It should be emphasized that by encouraging companies to retain redundant workers, the government is not moving in a direction contrary to that of the private sector, but rather enhances what the companies would have done even without government support. We may conclude that the effect of the government's subsidy on unemployment is far greater than the quantitative measure given by the number of workers directly supported by it.

Since the target of employment policy is to keep the redundant worker in the company, the size of this redundancy, in the form of intra-firm unemployment (*kigyōnai shitsugyō*), may be taken as a measure of the success of this policy. At the same time, it can be regarded as a measure of the failure of macro-economic employment policy. Several research institutes in Japan give estimates of the amount of intra-firm redundant workers, using somewhat different methods of estimation, but with comparable results.³ Here we use the estimates of the Sumitomo Seimei Research Institute (1993), made on the assumption that the share of non-redundant workers is equal to the ratio of actual labor productivity to maximum labor productivity. These estimates are presented in Fig. 6.

FIG. 6. ACTUAL AND "REAL" UNEMPLOYMENT



³ For example, for the period July–September 1992, we have the following estimates of intra-firm unemployment: Nikkō Research Center—1.06 million, Asahi Seimei Research Institute—960,000, Fuji Sōgō Research Institute—1 million (August 1992) and Sumitomo Seimei Research Institute—903,000 (September 1992).

As can be seen, during the period from the 4th quarter of 1981 to 3rd quarter of 1987, and again since the 4th quarter of 1991, there existed intra-firm unemployment in Japan. For example, during the first quarter of 1993, there were 1.52 million unemployed workers, but another 2.46 million workers were estimated to be "unemployed" within their companies. Adding the redundant workers to the unemployed, the total number reaches 3.98 million, raising the actual unemployment rate of 2.3 percent to a "real" rate of 6.0 percent. If this is the case, employment adjustment policy must be judged to be very effective, having reduced the unemployment rate by more than 60 percent in this quarter.

In addition to the direct effect of employment adjustment policy on the level of unemployment, we must consider also other possible effects of employment adjustment policy. Like any policy, government action that is aimed at solving one problem may well have side effects, which cause or aggravate another problem. The same may be true about the employment adjustment subsidy.

a. The effect of employment adjustment subsidy on the amount of part-time labor.

It was suggested (Shinotsuka, 1989) that since one criterion for receiving the subsidy is a reduction in regular employment, companies may prefer to lay off regular workers and increase the number of part time jobs. However, it was claimed by the Ministry of Labor (as reported in Shinotsuka, 1989, ch. 6) that no such occurrence has been detected.

Moreover, there may be reasons to think that the system has a positive effect on the number of regular workers employed by the company. This is because of the element of risk-sharing involved: when the company is making a decision about the size of its regular work force, one consideration is, what will happened if it finds itself in a situation where there are redundant workers. The employment adjustment subsidy can be regarded as a partial insurance for such contingencies, since the burden of redundant workers does not fall on the company alone.

b. Employment adjustment policy and long-term structural change.

Unemployment can be regarded as a necessary step in the process of structural changes in the economy: declining industries are laying off workers, who find their way into growing industries, causing a change in the industrial structure. Keeping redundant workers in the companies can hinder this process, reducing the speed of desirable industrial changes.

While this argument may be true, it should be pointed out that in Japan a certain degree of structural change is taking place through internal changes within companies, who move from one production line to another. For example, Kyocera started its activities in the production of ceramics and moved to computer hardware. As has been shown, one aspect of employment adjustment policy is concerned with subsidies for re-training of workers, in order to perform new jobs within the same company. Further study is needed to reveal the interaction between employment adjustment policy and long-term industrial policy.

VIII. *The Limits of Employment Policy*

While employment policy can be effective in the reduction of unemployment and its destructive effects on social welfare, there is a limit to its scope. Evidently, when the firm ceases to exist as a result of bankruptcy, its workers have to find another job, and if unable to do so will be unemployed. However, even before the firm reaches this stage, i.e. when

it suffers losses for an extended period of time, it will start reducing its work-force by laying off workers. Koike (1983) argues that the belief that in Japan workers are not fired is unfounded, and shows that when a firm has consecutive losses for two periods it starts discharging workers. A similar conclusion is reached by Muramatsu (1988), namely that firms cannot avoid dismissing workers in severe recessions.

The period during which companies retain redundant workers can be extended with a massive support of the government in the form of employment subsidy, but cannot be prolonged indefinitely.

Until now the Japanese economy was able to function without massive unemployment. We have to wait and see whether this pattern will not be destroyed in the present recession.

IX. Conclusion

The objective of labor adjustment policy is to reduce unemployment by keeping redundant workers in the company. In periods of business fluctuations this has long-term advantages. It benefits the individual worker, who can keep his job and retain his identity as a member of the company. It benefits the company, who is able to keep workers with firm-specific training, and is advantageous for society as a whole, since it reduces social tensions and increases political stability. While the effect of the government employment adjustment policy, measured by the number of workers who can be directly employed by it, seems to be small, it must be seen in the broader context of a joint effort by private companies and the government to reduce unemployment. The government policy has a signalling effect, and can be regarded as a risk sharing-device, reinforcing the desire of private companies to maintain their labor force.

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