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# **Industrial Structures, Employment Trends and the Economic Crisis: The Case of France and Japan in the crisis of 1970s**

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The first attempt at a comparison of the ways in which the labour markets are organized in France and Japan is based for the most part on two comparable enquiries into wage and employment structures carried out in 1972 and 1978 in these two countries. We have also collected some direct information on the mobility of wage-earners in industry, such as can be acquired from surveys like the INSEE employment survey carried out annually in France since 1968, and a similar one carried out in Japan every three years.

This kind of comparative research implies an ability to carry out successfully three widely differing types of analysis. The first is based on empirical observation and the construction of those indicators best able to reveal - on the basis of the phenomenon that they describe - the diversity of practices between two countries in several basic areas of wages and employment policy. The second uses these contrasting practices to infer the most significant differences at a more general level in the nature of the "spaces" in which these practices function. It is only at this second level that the diversity of practices can be seen to be something other than a consequence of the actors' opportunist strategies or of the history of their struggles with each other. The third form of analysis must enable certain phenomena to be more fully described than hitherto. Only through such a description can the general importance of certain particular practices and the consequences of any change that they might undergo in the future be fully brought out. This last point is particularly important in the present period of structural tensions on productivity, employment, qualifications and the rules that govern their interdependence.

The results presented in this article favour the empirical approach and the contrasting of partial indicators. The more comprehensive and general kinds of comparative analysis will only be mentioned - by way of provisional hypotheses - when the various statistical data that we have collected are examined.

The results will be presented in two stages. In the first, an attempt will be made to give an idea of the major contrasting characteristics of the two labour markets at the beginning of the 1970s as revealed in the data used. The most recent available results show that these contrasts are still apparent and thus form a good analytical basis for comparing the two industrial labour markets at the end of the long period of industrial growth that followed the Second World War. However, more detailed observation reveals that the two systems for organizing industrial wage-earners did not undergo the same changes during the first years of the economic crisis. On the one hand, these differences reveal characteristics specific to the two systems that are accentuated by the crisis. But they also enable changes in the structuring of the industrial wage-earning class in both countries to be pinpointed, and trends to be identified, which, if analyzed in detail, would be of particular significance for the future of both France and Japan.

## ***I. INDUSTRIAL STRUCTURES AND THE INTEGRATION OF THE LABOUR FORCE IN FRANCE AND JAPAN AT THE BEGINNING OF THE 1960s***

The relationships between labour market and industrial structures will firstly be discussed by contrasting production units of different size. For the purposes of simplification, greater weight will be given to contrasting very small and very large firms (less than 50 or 100 employees and more than 1,000), and we shall be particularly concerned with the specific characteristics of the behaviour of large firms. This paper takes no account of sector and all the results presented refer to the whole of industry regardless of sector. It will, of course, be necessary to verify, in the course of this study, to what extent the results that seem to us the most interesting stand up when the sectoral dimension is taken into account. It should finally be made clear that our particular concern is with manual workers. We shall refer to non-manual workers only using the simplest indicators.

Firms grouped by employment size and the distribution between manual and non-manual work have been further desegregated by the workers' sex and age. Our final data source is a breakdown of wage-earners into seniority grades. For each intersection thus defined, the average monthly wage [5] and the total number of wage-earners are known. The data used in the first section refer to 1972. The developments outlined in the second section compare 1972 and 1978 in both countries.

### ***A. Industrial Structures and Workforce Categories***

There are two fundamental differences between the two countries in the distribution of the workforce among large and small firms:

- i) The breakdown of the manual and non-manual workforce among firms of different size and their composition by sex.
- ii) The interest shown by large and small firms in experienced and inexperienced workers.

The first point can be illustrated by Table I: "L" (large) indicates firms with more than

1,000 employees and "S" (small) here indicates firms with less than 100 employees in Japan and 10 to 50 in France.

Table I - Comparative weight of non-manual workers and women according to the size of firm

|       | Structure of work force according to size of firm |       |           |         |                  |       | Distribution of the male workforce |       |                |       |
|-------|---|-------|-----------|---------|------------------|-------|------------------------------------|-------|----------------|-------|
|       | Non-manual (1)                                    |       | Women (2) |         | Non-manual males |       | Manual                             |       | Non-manual (3) |       |
|       | France  | Japan | France    | Japan   | France           | Japan | France                             | Japan | France         | Japan |
| L     | 34,5  | 40    | 17 (15)   | 24 (25) | 33               | 41    | 31                                 | 38    | 35             | 50    |
| S     | 28,5  | 23,5  | 35 (30)   | 38 (39) | 26               | 25,1  | 25                                 | 32    | 17             | 18    |
| Total | 31%   | 33%   | 30%       | 32%     | 30%              | 35%   | 100%                               | 100%  | 100%           | 100%  |

- (1) In large Japanese firms, for example, 40% of the employees are non-manual workers.
- (2) For example, 17% of the employees in large French firms are women. (We have indicated in brackets the % of women among the manual workers)
- (3) 50% of non-manual workers in Japanese industry are in large firms.

This table gives rise to two observations. There is a clearer distinction between different sized Japanese firms than between their French counterparts in numbers of non-manual employees, and more particularly in numbers of male non-manual employees. Thus, in Japan, those workers generally considered to have the best technical or organizational abilities are concentrated in large production units. This tendency also exists in France, but is less marked.

On the other hand, large French firms have *relatively* more male workers than large Japanese firms, particularly manual workers.

Table II - Relative wage cost of labour and employment share of labour by category (large firms)

|                 | Wage relative to the average industrial wage for the category |         |           | Ratio of employment share in France to that in Japan (1) |
|-----------------|---|---------|-----------|--|
|                 | France 1  | Japan 2 | Ratio 1/2 |  |
| Women           | 0.75  | 0.52    | 1.44      | 0.71   |
| Male manual     | 0.6   | 0.93    | 0.92      | 1.24   |
| Male non-manual | 1.43  | 1.16    | 1.23      | 0.87   |

- (1) For example  $1.24 = \frac{\% \text{ of male manual workers in the wage earning population in France}}{\% \text{ of male manual workers in the wage earning population in Japan}}$ .

These differences in the relative employment levels for different categories of worker can be compared with differences in the relative wages of these categories.

Relative to their French counterparts, large Japanese firms employ more men and women in non-manual jobs, which enables them to take advantage of the lower wages of these categories of workers in the Japanese labour market. Similarly, the tendency of large French firms to employ relatively greater numbers of male manual workers is not inconsistent with the relative costs of this type of labour in the two industrial labour markets (Table II).

Such a directly economic “explication” is certainly not the only one possible, and it has in any case to be relocated within a series of determining factors of which the economic “explanation” is only one. We shall see later that the female workforce in large Japanese firms (particularly the manual workforce) is subject to a particular type of institutional control that may explain both its lower wage and its greater employment, at least in a period of growing employment. As far as the high proportion of male supervisory and training personnel is concerned, this can be seen as indicative of the greater role played by large firms in Japan in the systematic organization of subcontracting, which encourages a tendency to concentrate production tasks in small units and co-ordination and management tasks in large units.

Thus, relative to France, the manual workforce in large Japanese firms is predominantly female and in a minority compared with the large numbers of supervisory staff in the middle and upper categories. It is also significantly younger. Here, there is a considerable difference between the two countries, as can be seen from Table III.

Table III - Percentage of manual workers under 30 years of age

|                                   | France |       |       | Japan |       |       |
|-----------------------------------|--------|-------|-------|-------|-------|-------|
|                                   | Large  | Small | Total | Large | Small | Total |
| % of Manual workers aged under 30 | 36 %   | 42%   | 41%   | 55%   | 31%   | 44%   |
| % of Women among manual workers   | 15%    | 30%   |       | 25%   | 39%   |       |

The relative position of large and small units is totally reversed here. In large Japanese firms, the manual work is done for the most part by a young workforce, whereas in their French counterpart the manual workers are mostly workers already past the age of 30. There is not a very clear distinction in France between large and small firms, although the latter do tend to make more frequent use of young manual workers. On the other hand, there is a very clear distinction in Japan, where almost 70% of the production in small firms is carried out by workers well into the second half of their working lives (and who are even - as we shall see later - more likely to be over 50 years of age).

This situation can be seen to correspond to systematic differences in hiring policies, by comparing the distribution by age of workers recruited in the year preceding the surveys that we have used [6]. In Japan, 67% of the workers recruited by large firms were under 20 years of age. This proportion was only 15% in small units, where 56% of those recruited were over 30 [7]. There is no very significant difference in France, where the percentage of very young workers recruited is fairly similar at around 32%. The most that can be said is that large firms tend to favour recruitment of workers between 20 and 30, whereas small firms tend to recruit workers over 30.

Seniority is usually advanced as the main factor in the structuring of the Japanese labour market and of firms' manpower policies, particularly those of the larger firms, which have an

active role only in the recruitment of inexperienced workers. But the evidence suggests that a worker's age may be just as important, or even more important than seniority. This characteristic does not appear to be a fundamental one in the case of France, where the distribution of workers recruited according to the stage of their working life seems to be more random, with the possibility of competition in recruitment - particularly of the larger firms - among all categories of the labour force. However, this does not mean that the Japanese labour market is more clearly divided into large firms, constituting perfect internal markets, and small firms, whereas the French labour market is more open and more favourable to opportunities for mobility with a wider area. The basic difference seems to us to lie rather in the processes according to which workers become mobile. An explanation of this basic point implies consideration of the way in which mobility or immobility of workers in firms depends on the different stages of a working life, i.e. on the relationships between the age and seniority of workers.

### ***B. Stabilization and Destabilization of the Workforce and Labour Mobility in the Two Countries***

We shall bring into play here an indicator which gives a rough but sufficiently significant measure of the extent to which firms take responsibility for the career of each employee [8]. If they took complete responsibility (the perfect image of lifetime employment for all), the probability for an employee of a given age of having maximum seniority, taking account of the time at which he began his working life, would be one (for example, all workers aged 30 would have between ten and twelve years seniority). The available statistics do not allow a precise measure of the relationship between age and seniority. At best, indicators can be constructed for the proportion of workers in each age group with a certain level of seniority.

Rough Indicators of integration:

|  |   |
|--|---|
| Manual workers aged less than 20       | : % of workers more than 2 years seniority  |
| Manual workers aged between 20 and 30: | % of workers more than 6 years seniority    |
| Manual workers aged between 30 and 50: | % of workers more than 10 years seniority   |
| Manual workers aged between 50 and 60: | % of workers more than 20 years seniority   |
| Manual workers aged over 60            | : % of workers more than 20 years seniority |

Examination of these indicators may focus on two points:

- i) The difference between their observed value and unity [9].
- ii) The homogeneity between these indicators (which indicates a tendency for seniority to progress with age), or the disparities which may result from a history during which the workforce is less mobile for some periods and more mobile in others.

If these indicators are applied to female manual workers, several significant results are obtained.

Table IV. Rate of integration of female manual workers (1972)

| Age groups | France<br>1 | Japan<br>2 | Ratio 1/2 |
|------------|-------------|------------|-----------|
| Under 20   | 16%         | 24%        | 0.67      |
| 20-30      | 27%         | 36%        | 0.75      |
| 30-50      | 27%         | 16%        | 1.69      |
| 50-60      | 21.3%       | 5.9%       | 3.61      |
| Over 60    | 27.2%       | 7.9%       | 3.44      |

The differences observed between the two countries are wide enough to be of significance despite the approximate nature of the indicators used. Firstly, there are differences for women under 30, who seem more frequently able in Japan to have a stable career. This should not be seen simply as differences in the behaviour patterns of young women in the two countries, since it can be observed, by refining the data in Table III, that there is a direct link between this "propensity to stability" and the fact that 77% of female workers in large firms are young women (as against only 47% in France) [10]. This institutional stability linked to a specific characteristic of the employment and recruitment policies of large Japanese firms seems to have a limit, since the trend is suddenly reversed from the age of 30 onwards, leaving only a very small proportion of women at the end of their working lives who have benefited from total institutional stabilization [11]. We shall see later that this greater mobility undoubtedly corresponds often to a break in working life, with those women who do return going back for the most part to small production units, in which almost 75% of the female manual workforce is over 30 [12].

There is a much clearer trend towards integration for female workers in France, even if the proportion integrated over long periods in particular firms remains relatively low. The proportion of women who have less than two years seniority is 59% for those aged under 30 but has fallen to 27% for those aged over 30. In France, therefore, young women seem to make relatively better progress from the precariousness of seeking employment in the labour market to a position of relative integration, at least for those who do not interrupt their working life. In Japan, such "strategic" progress on the part of the individual does not seem to be of much significance, since both the early stabilization of young women and their predictable mobility seem to be highly institutional and collective in nature.

This contrast, put forward here as a hypothesis, between more strategic and individual mobility in France and more collectivized and institutionalized movements in the Japanese workforce, is also found to be true, although it takes rather different forms, for male manual workers. This is shown by the results presented in Table V.

Table V - Rate of integration of male manual workers (1972)

| Age groups | France<br>1 | Japan<br>2 | Ratio 1/2 |
|------------|-------------|------------|-----------|
| Under      | 12%         | 16%        | 0.75      |
| 20-30      | 24%         | 45%        | 0.53      |
| 30-50      | 49%         | 50%        | 0.98      |
| 50-60      | 37%         | 31%        | 1.19      |
| Over 60    | 37%         | 12%        | 3.08      |

Two trends emerge from Table V. Firstly, there is a considerable disparity, more marked than for female workers, between the rates of integration for workers aged between 20 and 30 in the two countries. In Japan, the first part of working life seems characterized by the acceptance of responsibility for workers by firms, whereas in France there is a strong tendency towards external mobility. This was no doubt encouraged - as will be seen when the situation six years later is examined - by the continuous growth in industrial employment at the end of the 1960s and the beginning of the 1970s. This greater propensity towards external mobility in France can be confirmed by the widely differing numbers of recently recruited workers (less than two years seniority) in this phase of their working life: 48% in France compared with only 32% in Japan.

It should be noted in passing that there is an inversion of the relationships between men and women in both countries, which no doubt indicates - over and above quantitative disparities - differences of a more qualitative nature. The higher rate of integration for men in Japan is more indicative of their more established position in the process by which firms take responsibility both socially and professionally for their workforce and around which the labour market in that country is organized. In France, on the other hand, the position of individuals in the social and professional hierarchy goes through a more complex process of integration, precariousness and strategies for obtaining employment that arise out of actions of both firms and employees. It might be concluded that male manual workers in this context are on average more mobile, more encouraged to be so by the competition among firms, and thus less well integrated at this stage of their career. There is thus a real disparity between men and women in both labour markets. However, it is formed by very different processes and in very different social and institutional frameworks [13].

Indicators similar to those in Table V and calculated according to size of firm show that the difference in the rate of integration between the two countries is even more marked for small firms than for large ones. There is a very low level of stabilization for young workers in small French firms. This difference can be explained by characteristics already mentioned above. In particular, it has been stressed that large Japanese firms favour the recruitment of young, inexperienced workers, which leaves little room for manual workers over 20 or 25 to move from small firms to large ones. Large firms are much less "closed" in France, where young men between 20 and 30 seem to account for most of their recruiting [14]. It cannot be confirmed whether this recruiting is among workers moving from small firms to large ones, where the



opportunities for long-term integration and promotion are higher. Thus there is a contrast between two types of mobilization and selection. In France, the first third of the working life is characterized by external mobility, part of which at least is "strategic" in nature and creates competition for access to the best jobs. In Japan, there is a marked trend towards integration resulting from earlier selection processes and takes place at school leaving age. Thus this trend is partly active (the stabilization offered by the system of lifetime employment - the Nenko system - in large firms and partly passive, for those who remain in small firms, since access to the most structured and attractive internal markets is closed to them by the method of very early selection characteristic of these markets.

In the 20-50 age group, there is at least an arithmetic convergence in the two systems of integration and, contrary to what is true in the case of women, it is only above the age of 50 that there is an inversion of the relationships between the two countries. The number of male manual workers over 50 who are well integrated into their firms (having more than 20 years seniority) is 37% in France and is no more than 28% in Japan. Although the system of lifetime employment seems, a priori, to be adhered to in large Japanese firms, where 63% of workers over 50 have more than 20 years seniority compared with only 55% in France, those benefiting from the system are fewer in number; 15% of workers in large French firms are over 50, compared with only 7% in Japan. The corollary of the system of stabilization in large Japanese firms is a process of selection, on the basis of which an external market develops for older workers that is significantly brisker than in France: thus, 55% of workers over 50 have less than ten years seniority in Japanese industry compared with only 35% in France. Once again, we must stress the inadequacy of a statistical approach that does not reveal the social and occupational mechanisms that divide older externalized workers in Japan from others, and that in France maintains in employment workers whose qualifications may be characterized by a high degree of obsolescence.

These differences, which relate to both men and women, enable a contrast to be made - even if the indicators used are imperfect and indirect - between two systems of mobility and stability arising out of very different individual and collective mechanisms in the two countries. In Japan, a system of stabilization has been developed that applies to young workers who have already been differentiated from each other at the time of entry into the labour market. The duration of this period of stabilization depends to a large extent on external categorizations established and controlled by the firms [15]. Collective forms of mobility of a quasi-institutional nature have also been developed, in which the organization of the various stages of working life of very different categories of workers plays a role that may turn out to be more important than the division of jobs within the industrial structure or the aggregation of individual strategies. In France, a labour market has grown up in which competition for access to jobs is more open, or at least less bound by rules governing its operation. Individual strategies of mobility or stability, within the employment systems, are thus linked in a more balanced way with the policies or practices that may contribute towards their institutionalization [16].

Do the qualitative differences that have apparently been revealed in the organization of labour flows go hand in hand with the quantitative differences in the intensity of these same flows, and if so, in what direction do these differences make themselves felt? Comparison of the direct data available, based on the French employment survey and its Japanese counterpart, reveals a greater intensity of inter-firm flows in France than in Japan [17].

The annual rate of inter-firm flows within the same industry is twice as high in France as in Japan (5.7% of industrial jobs are affected by such mobility in France, compared with only 2.5% in Japan) [18]. This disparity is comparable for men and women, although it is a little higher for men, who show the greatest difference between the two countries in the rate of inter-firm flows from which the industry "benefits". These results are not incompatible with our previous conclusions to the extent that it has been observed that the mobility in Japan seems to be concentrated within minority categories B in industry (middle-aged women and male workers at the end of their careers), while the other categories are better integrated than in France in a system of stabilization which, although less strong in small production units, is not restricted to large firm. The use of surveys that give a direct measure of mobility also enables this result to be qualified by taking account of two other basic differences between the industrial labour markets in the two countries [19]. The first of these is that the small numbers of workers changing firm in mid-career in Japan means that previously unemployed workers play a significantly larger part in industrial recruitment (job take-ups). Their share in the recruitment of new workers from one year to the next is 55% in Japan, compared with only 40% in France. A large part of this difference is due to the relatively greater numbers of women returning to work in Japan [20]. It would be necessary to clarify the mechanism responsible for the probable link between this flexibility caused by exit and re-entry of women into the industrial labour market and the existence of two female labour markets - one for women under 30, the other for women over 30 - to which attention has already been drawn above.

The relatively greater weight of entries into employment in the adjustments that take place in the external market in Japanese industry does not invalidate the main conclusion that can be drawn from a comparison of mobility rates in the two industrial systems: there are many more external flows to firms in French than in Japanese industry [21]. This difference [22] might lead to "mechanical" explanations related to the uneven levels of instability in the productive system (appearance and disappearance of firms; inequalities in the growth rate between sectors) that cannot be checked, at least for the moment. It might also lead to an examination of data relating to the different ways in which the flexibility of firms' internal workforce is organized in the two countries. This latter explanation is undoubtedly a fundamental one since, according to the indicators we have been able to gather together, labour flows between factories belonging to the same company are much higher in Japanese than in French industry, being of the order of 7% of the male industrial workforce in Japan, compared with only 2% in France. This internal flexibility within firms is not restricted, as has been shown in more specific analyses carried out by Japanese researchers, to movements between factories, but relates also to movements between departments or jobs [23]. Thus from one point of view, this flexibility would appear to offset a low level of external mobility or to be, more precisely, another way of controlling the integration of the workforce. Moreover, this goes hand in hand with significant differences between the two countries in the methods of determining rewards. This will be the final point in this part of the paper.

### ***C. Two Contrasting Types of Internalization of the Manual Workforce***

The main difference in this respect between the two countries that is immediately obvious relates to the extent to which seniority is rewarded, particularly in large firms.

Table VI. Restrictive wages of workers and non-manual staff

Average wage of very experienced workers as a % of the wage of male non-manual workers very experienced manual

|        |       |
|--------|-------|
| France | Japan |
| 0.63   | 1.08  |

Wage of newly recruited manual workers as a % of the wage of male non-manual workers

|        |       |
|--------|-------|
| France | Japan |
| 0.51   | 0.54  |

Wage of very experienced manual workers as a % of the wage of female non-manual workers

|        |       |
|--------|-------|
| France | Japan |
| 1.07   | 2.19  |

Non-manual wages as a % of the manual wages

|            |            |
|------------|------------|
| France     | Japan      |
| 1.58       | 1.25       |
| (1.65) (a) | (1.26) (a) |

(a) The figures in brackets are for male workers.

It is true in both countries that the average manual wage increases with seniority, and it is possible to construct a simple indicator of the rate of increase by relating the average wage of workers with more than 20 years seniority to that of newly recruited workers. The ratio is 2.00 in large Japanese firms compared with only 1.25 in their French counterparts. It is also true that the percentage of very senior workers (more than 20 years seniority) is a little higher in France (23% compared with 14% in Japan), in view of the selectivity that has already been stressed among older workers in large Japanese firms [24]. There are nevertheless two systems for rewarding experience. Moreover, this unequal rewarding of experience has a decisive influence on the very different relationships in the two countries between manual and non-manual wages [25]. For example, the following situation exists in large firms.

The situation is very similar in the case of newly recruited male manual workers, whose wage represents approximately half that of non-manual workers [26]. The situation is very different for experienced workers whose wage is higher than that of non-manual workers in Japan, whereas in France experienced manual workers receive only two-thirds of the wage of non-manual workers. Two indicators have been added: one of these (line 4) reveals a difference in the wage hierarchy (manual and non-manual) that is comparable to the difference between France and Germany [27]; the other (line 3) stresses the importance of the reward attached to holding a non-manual job, which puts all salaried employees in large firms in French industry at a level of remuneration comparable to that of the most experienced manual workers in the same firms.

Not enough is known of the relationships between mobility, qualification and reward for

it to be easy to put forward "explanations" for these differences in the evaluation of manual workers' qualifications. However, on the basis of other studies already mentioned, it can be said that one factor common to both Japan and Germany - although there are considerable differences - is the existence of very efficient systems for constructing and legitimizing a versatile qualification for industrial workers. In Germany, qualifications are gained within a system of occupational training, which means that there is a high degree of disassociation between the system of mobility and workers' qualification and the systems of technical division of labour [28]. It should be noted that this system of qualification for manual workers has the double characteristic of being based on the firm "apprenticeship", while being independent of the categories of employment systems (jobs, productive functions, economic sectors, etc.). Industrial workers in Germany, the men at least thus possess a form of intrinsic qualification that is both professional and social, and of which the collective and the individual, the specific and general components are closely interwoven.

In the case of Japan, the professional diploma system is of negligible importance, and a manual worker acquires a qualification that is independent of the employment system by systematic use of the mobility between categories of tasks. The acquisition of the versatility that defines the industrial worker's qualification both professionally and socially is based on this mobility. The mechanism is thus very different from the re-training of skilled workers in Germany. This versatility goes hand in hand with the relatively high position of industrial workers, at least on the scale of professional capabilities and the economic reward for these skills. This would appear to be further example of the apparent paradox of the coexistence of two characteristics already discovered in the case of Germany:

- i) The qualification of an industrial worker appears to be relatively general and autonomous in comparison with the specific nature of the actual job held or with their divergence within the system of the division of labour.
- ii) There is a close link between acquisition of this qualification and, on the one hand, the firm, seen as a place for the collective organization of individual apprenticeships and, on the other, the actual carrying out of tasks, used specifically to further the development of general capabilities.

In both cases, rigid rules for recognition of qualifications (experienced workers or those holding a diploma) coexist with organizational flexibility that is apparently used within the area defined by these rules and with strictest regard for their legitimacy [29]. This rigidity seems to go beyond the internal rules of the working class. It indicates the fairly strict limits that develop between manual and non-manual workers in industry and between employees in industry and other employees in these countries.

One difference between the two countries that must be pointed out is the nature of the more general framework within which these systems of reward are located. In the case of Japan, the acquisition of a qualification through work experience is not distinct from the use of age as the criterion around which a hierarchy, the principles of which go beyond the social relationships within the productive sphere, is organized and finds its legitimacy. Age may seem, even though the differences in the role that it plays for each sex [30], to be the expression of a form of recognition of needs - both economic and non-economic - as they are reflected in the relationships of the family structure to society [31]. In the case of Germany, the system of occupational training in its widest definition is the more general framework for the link between

the relationship within the productive system and society as a whole.

The French system for acquiring and recognizing manual workers' qualifications seems to be characterized by a more complex interaction between the job held, and, more generally, the position within the system of tasks, seniority and occupational or general training. The hypothesis that we favour in our attempts to analyze the industrial labour market in France is that there is a correspondence between the complexity of the terms in this process or the more strategic nature of the conditions under which worker mobility occurs (within firms and from firm to firm) and the more specific nature of the various forms of qualification to which the industrial manual worker may have access [32]. This hypothesis can then be extended by assuming that the more strategic, and thus conflicting, nature of the "rules" governing access to jobs and the recognition of qualifications - and thus the wages linked to them - goes hand in hand with a lower degree of organizational flexibility that is reflected in the rigidity of hierarchical practices, in the difficulty of finding widely accepted forms of versatility and in the bitterness of conflicts about internal or external "redeployment" of the workforce at a time of crisis.

This stress on the more strategic and more complex nature of the rules in France does not imply any deliberate simplification of the behaviour patterns of the actors in Germany and Japan. We know that such a contrast is unacceptable. Nevertheless, we do feel that such complex interactions between specific actors contribute to the formulation of the rules in France, whereas in Germany and Japan they form part of more collective and wider social regulations (the occupational diploma system and the Nenko system).

Finally, it should be noted that one important result of the main criteria around which the hierarchy, qualifications and social relationships are organized in Germany and Japan is to make a clearer distinction than in France between the male and female labour markets. This is very obvious for manual workers, for whom the wage relationships of men to women are 1.96 in Japan, 1.55 in Germany and 1.32 in France, and is still true, though less marked for all industrial employees, for whom the relationships are respectively 2.03, 1.55 and 1.45.

These brief remarks of a more qualitative nature do not claim to be a summary, much less an integration of the results of the comparative analysis put forward in the first part of the paper. They merely indicate the general direction that might be taken by a more systematic or even more theoretical exploitation of comparative analyses and of the often considerable differences that they reveal between the ways in which industrial labour markets function.

## ***II. INDUSTRIAL EMPLOYMENT TRENDS IN TIMES OF CRISIS: A COMPARISON OF SOME RECENT TRENDS IN JAPAN AND FRANCE 1972-78***

### ***A. Substitution between Labour Categories and Employment Policies in Times of Crisis***

The first thing to note is the unevenness of the fall in industrial employment in the two countries. As measured in the two surveys used, industrial employment fell over six years by 8%

in Japan and by only 4% in France. However, it must be stressed that the main significance of these surveys is that they compare employment structures, according to various criteria, and in that respect, the developments observed indicate a similarity in the indicators measured in the two countries.

The fall in employment in France is accompanied by a greater relative loss of manual jobs, particularly of those held by men, greater resistance by the female workforce and a sharp increase in non-manual jobs held by men. The dominant characteristic of the evolution of the industrial labour force in Japan is that the fall in employment is more highly concentrated among the female workforce (-12% in all categories compared with -4% in France). In addition, the employment of male manual workers has held up relatively well, and there has been a slower growth in the numbers of male non-manual workers. These differences between the two countries seem to be greater in large firms. For example, the fall in the number of female manual workers amounts to 50% of total manual employment lost in large Japanese firms, compared with only 6% in France. Moreover, the percentage of non-manual workers in the total labour force has increased almost twice as fast in French firms (+15%) as in large Japanese firms (+8%). This difference is of the order of three to one - +15% compared with +5% - if the total increase over six years in the share of female-manual workers of all industrial employees is taken into account [34].

If this analysis is extended by a more detailed structural examination - by age or seniority - of manual workers (particularly in large firms), quite different trends are revealed, both in a comparison of the countries with each other and in the structural evolution of the manual and non-manual population in each country taken separately. In the case of Japan, the relative resistance of manual employment, particularly among men, went hand in hand with a marked trend towards an older workforce, due for the most part to the fact that those in employment remained in their jobs and that new recruiting came to an abrupt fall due to economic crisis of France and Japan in 1970s [35].

In large firms, the percentage of workers under 30 decreased in six years from 49% to 37% of the total labour force. There was an even more spectacular fall in the number of male workers with less than two years seniority, which fell from 23% of the total in 1972 to 6.5% in 1978. The ageing of the labour force is not linked to a change in policy on the structure of recruitment, since the great majority of workers recruited continue to be under 20 (65% in 1978 compared with 60% in 1972). However, certain indices reveal an increased trend for large firms to select their workforce by raising the general level of training of the young people recruited for manual jobs.

The main factor preventing the fall in the employment of manual workers from being too rapid must therefore be the fact that the system for stabilizing the existing labour force was maintained and even strengthened during the early years of the economic crisis. Thus the share of workers with more than ten years seniority increased from 40% to 56% in large Japanese firms in just a few years. These trends are in sharp contrast with what happened in their French counterparts, at least during the period of our study. The trend in France was for the labour force to become younger (the share of workers under 30 increased by 2%, whereas it fell by 11% in Japan) and for the fall in recruitment to be much less rapid than in Japan (23% of the labour force in large firms in both countries had less than two years seniority in 1972, whereas in 1978

the equivalent figure was 15% in France and 6.5% in Japan [36]. This continuing high level of recruitment seems to go hand in hand with a trend -new to large French firms - towards a lowering of the age of men recruited for manual jobs. Thirty eight per cent of workers recruited in 1978 were under 20, compared with 30% in 1972, and the proportion of recruitments over the age of 30 was becoming insignificant.

The relative vulnerability of manual jobs in large French firms in the crisis thus seems to be associated with a questioning of the value of the system of stabilization, particularly for workers already benefitting from a high level of integration within the system of internal qualification - in-house training - at the beginning of the 1970s. In contrast to Japan, where the percentage of workers with more than 10 years seniority increased in six years by 15%, the proportion of these workers fell by 1% in France (47% compared with 48%) during the same period. The fall in manual employment thus appears to go hand in hand with a trend towards a renewal of its structure. The question then arises of the role played by the level of training (general or vocational), in the criteria governing this (assumed) policy of renewal and of the importance attached to the possibility of changing not the "quality" of the workforce, but the form of the contracts - in the widest sense of the word - that define its link with the firm. From this point of view, the first reaction to the crisis observed in France between 1976 and 1980 (institutional forms of precariousness, productive decentralization, individualization of wage negotiations) is only one stage in a process of greater change in organization, in the nature of social relationships and in the demographic balance within the industrial workforce.

This difference in stabilization policies becomes even more complex, and gives rise to more conjecture, if we compare what happened to male manual and non-manual workers in large production units in the two countries. In Japan, the number of highly integrated manual workers (with more than ten years seniority) increased in absolute terms by 15% between 1972 and 1978, whereas the same figure for non-manual workers increased by only 3%; in France, the corresponding figures are -9% and -16%. The contrasting trends in the structure of qualifications, to which attention has already been drawn [37], obviously correspond to decisions based on the general principles guiding the short-term and subsequent structural reaction of internal markets to the crisis. It would be of interest to seek a better understanding of the "arithmetic", the demographic and sociological processes (particularly as reflected in the number of promotions from manual to non-manual jobs [38], as revealed by the selective use of collective dismissals or organized departures" in France and the nature of the consensus that was established on the basis of the high degree of stabilization of the manual work force in large Japanese firms.

Of particular importance is the extent to which the trend towards renewal of the labour force in France is one of the strategies used by firms to counteract the organizational rigidities that could only be associated -all things being equal - with a sharp increase in the average seniority of workers [39]. Conversely, the strengthening of the *Nenko* system in Japan would only have been made possible by the existence prior to the crisis of practices on which there was a high degree of consensus or that were already well integrated into the concepts underlying the qualifications of industrial workers, i.e. internal flexibility in the widest sense of the word; movement between jobs, workshops, functions, factories, types of production, etc. This does not of course exclude the hypothesis that this stabilization was an important concession by the employers, made as part of more wide-ranging decisions, the purposes of which was to reduce other constraints (real wages, for example, or at least the average wage cost).

The figures obtained for the female labour force (manual workers in particular) will not be examined in detail here. It should, however, be pointed out that the trends towards an ageing workforce and stabilization were observed in all areas, most particularly in large Japanese firms. These trends are fairly consistent with the relative rigidity of female manual employment in France which seems to correspond to extensive use by women of the opportunities offered to them - when this is the case - for keeping the job they had before the crisis. These trends pose several problems if an attempt is made to understand how massive numbers of women left work in Japan, unless it is assumed that a net reduction in recruitment (although less marked than for male workers) has more immediate consequences for a population whose average seniority within the firm is reduced by the practices of "institutionalized mobility" already described in the first part of this paper.

### ***B. The Probability Of Integration and a Reduction in the Number of Jobs***

The general trend is towards an increase in the rates of integration for industrial wage earners in employment [40]. Table VII shows the trends for the six year period in both countries.

The most significant differences are for men. Japan is characterized by similar increases for all groups, which could be seen as an index of the healthy state of the *Nenko* system [41], particularly for populations who traditionally benefit from it (manual workers over 50 years old). On the other hand, there is a fairly clear difference in France between the "rigidification of employment" for manual workers at the beginning of their working life (20-30 years old) and the erosion of the relative trend towards integration at the beginning of the period for older workers, particularly for those over 50. There is undeniably an element of convergence, statistically at least, between the two systems of integration and mobility. This statistical convergence is accompanied by divergence of the form of social relationships (the concept of qualification; the principles that govern worker mobility; the main issues around which employer-employee relationships are structured) associated with these two systems. Analyses of a more qualitative nature would be necessary in order to take account of the conditions and consequences of this trend: the apparent rigidification of the mobility - previously described as "strategic" - of workers aged between 20 and 30 in France.

In the case of France, these figures raise an important question about the mobility of young workers. It is well known that recent developments in the education system have emphasized the difference between young people with fairly high levels of vocational training and others who fail miserably at school. The question is what category is affected by the trend towards rigidification of the labour market for young people under 30 and what are the consequences for the more dynamic firms who traditionally recruited the most active and best qualified workers.

The differences are less marked for female manual workers, for whom there is a contrast in both countries between greater vulnerability for older workers and increased integration for the other categories. However, it should be pointed out that the disparity in the evolution of the rates of integration is very favourable to French female workers between 20 and 30, which is consistent with our observations for male workers in this age group.



Table VII. Index of the rate of integration in 1978 (base 100 in 1972) (a)

| Age Group | Male manual |       | Female manual |       |
|-----------|-------------|-------|---------------|-------|
|           | France      | Japan | France        | Japan |
| 20-30     | 1.54        | 1.29  | 1.50          | 1.25  |
| 30-50     | 1.08        | 1.18  | 1.36          | 1.32  |
| Over 50   | 0.83        | 1.23  | 0.90          | 0.90  |

(a) For example, the indicator 1.54 represents the following ratio: % of male manual workers from 20-30 with more than six years seniority in France in 1978: % of male manual workers from 20-30 with more than six years seniority in France in 1972. The indicators in lines 2 and 3 are constructed on the same principle, with the respective limits being ten and twenty years seniority. Indicator 1.5 represents the following workers between 20 and 30, which is consistent with our observations for male workers in this age group.

The direct data available on changes of firm or annual job take-ups in industry are still too aggregated (covering the total number of industrial workers) for these observations to be confirmed or elaborated. The trend in both countries is towards fewer changes of firm and job take-ups. The rate of mobility between industrial jobs fell by about 35% in both countries, with a slightly more pronounced decline for men in Japan (-40% compared with -30% in France). However, it must be borne in mind that the period over which this took place is six years for France (1972-78), whereas the data available for Japan covers only three years (1974-77). It must therefore be assumed that Japanese industry has in fact adapted to a greater reduction in external mobility, particularly among men, than in French industry [42]. On the other hand, we should consider whether the changes in France in the organization of mobility have not been more profound, at least at the beginning of the 1980s, because of the transition from predominantly strategic mobility to essentially institutionalized or enforced mobility [43] arising out of the mechanisms already described and commented on in other studies: "interim" contracts; fixed term contracts; collective dismissals.

### ***C. The Relationships between Wages and Seniority and the Relative Rewarding of Qualifications***

Only male manual workers will be considered here. The trend is towards stabilization of the indicators in Japan and towards an increase in France. There is still a considerable gap between the two countries, since in large firms the ratio went from 2.00 to 1.97 in Japan and from 1.25 to 1.35 in France.

There are three additional remarks to be made about these trends. First, it seems that the reduction in the pay of workers of long standing in France was less (at least for those who managed to keep their job!); their relative wage -in comparison with the average pay of male non-manual workers - rose from 0.63 to 0.68, whereas there was a fall in Japan (1.04 compared with 1.08). The difference between manual and non-manual workers is thus decreasing in France, although in large firms the average pay of a recently recruited non-manual worker is still

10% higher than that of a manual worker with 20 years' experience. However, this difference was previously 20%, and in large Japanese firms was -45%, the difference in favour of the manual workers for the whole period.

The second significant trend is less striking, but might profitably be studied in greater detail at the level of the firm. It was observed in both countries that the already significant influence of seniority was maintained or increased, and that this was associated with a slight trend towards a fall in relative earnings during the first years in a firm. The percentage difference between the average wage of workers with between four and six years seniority and that of recently recruited workers fell from 14% to 12% in France and from 25% to 20% in Japan while the differential between new recruits and workers with over 20 years' service increased in France (from 25% to 35%) and decreased in Japan from 100% to 97%. These contradictory results need to be examined in more detail in order to determine whether there is really a move towards new conditions for rewarding seniority for workers recruited and stabilized since the beginning of the economic crisis. The change might indicate that new forms of assessing workers' qualifications are gradually being introduced, with more importance attached to diplomas, particularly in France.

Our final observation is that in Japan the resistance of the relationship between seniority and wages seems to be supported by the strengthening of the relationship that we consider to be more fundamental in Japan: the rewarding of age. The gap between the average wages of workers aged between 20 and 30 and those of workers aged between 50 and 60 is growing significantly in large firms and even more so in small firms, where the influence of seniority is traditionally much less marked. The same trend exists in France, but it is much less pronounced in absolute terms and, in particular, in relation to our observations for seniority.

### *Notes*

1. This is only the most fleeting reference to the methodological and, in the last instance, theoretical decisions that have been the basis of the international comparisons carried out at LEST in recent years. For more detailed discussion, see the following works: Maurice et al., 1979; Nohara, 1981; Nohara, 1983; Nohara 1988; Eyraud, 1981; Maurice et al., 1982.
2. The period for which we have attempted to pinpoint these trends is the same as that separating the two surveys of the employment and wages structure available in France: the end of 1972 to the end of 1978.
3. For both countries, we have data available for firms of more than 1,000 employees. Data on small firms directly available for Japan refer to firms with ten to 100 employees and for France to firms with 10 to 50 employees. To obtain comparable estimates, French data have been adjusted using data on the next available size group (50 to 200 employees). In making these adjustments, we have checked the homogeneity of the behaviour of firms of between 50 and 200 employees against those with less than 50. It should be added that that in certain cases all industrial populations are being compared irrespective of size.
4. Excluding in both cases the building and public works sector.
5. The Japanese wages referred to take no account of the not insignificant share (25%) of

- bonuses. Nevertheless, we have checked that their introduction does not alter the structural relationships put forward in this art article.
6. A comparison was made of the structure by age (under 20; 20-30; over 30) of workers with less than one year' year's seniority. It is obvious that this indicator is not a direct measure of the recruitment structure in the year preceding the enquiry. We do have direct data from another source on the recruitment structure for Japan (cf. Nohara, op. cit.) which agree completely with the results that will be presented later, based on measurement in terms of stocks and not in terms of flow. In France, the use of recent data on labour flows ought to produce results close to those of a direct survey. In general, we are well aware of the fact that use of data on the supply of labour - particularly expressed in terms of age and: seniority - is very unsatisfactory as a way of describing the actual movement of workers. This was, however, what we shall do several times in this article, while accepting the criticisms that might be made.
  7. It is possible to speak of a systematic policy on the part of large firms active in the youth labour market, in which they operate a rigorous selection poli.cy. On the other hand, the behaviour of small firms is determined more by the constraints imposed by their poor competitiveness, in the same labour market, in which the relationship between the supply of jobs and the available workforce is very favourable to young workers, particularly in a period of expansion.
  8. This notion of responsibility is not necessarily linked just to the behaviour patterns of firms and their ability to "organize" the labour market. It is a *de facto* responsibility, which must be analyzed on the basis of the relationships established (which may later become constraints for firms) between their patterns of behaviour (both individual and collective) and those (again both individual and collective) Of the employees
  9. This reference to unity is perhaps not absolutely rigorous for the first two classes. It is certainly 50 for the final three.
  10. The same data presented differently reveal that 42% of young female workers in Japanese industry are in large firms, compared with only 13% in France.
  11. It would obviously be important to trace more closely this exodus from large firms by Japanese women between 25 and 35 years of age. However, we have no further details at present.
  12. Thus 46% of female workers over 30 are in small firms.
  13. The inversion of the relationship between the rates of integration for the sexes in France for age groups over 30 confirms our interpretation of the mechanisms that form the differences between the two sexes.
  14. Forty five per cent of recruitment in France compared to only 20% in Japan.
  15. In the results presented here, the essential difference is that between men and women or between workers distinguished according to age. It could no doubt be shown that the quality of secondary education or access to or exclusion from higher education plays a very important role.
  16. This does not mean that this strategic mobility does not occur within a system of rules to which both firms and employees adhere. The Parodi categories, the basic institution of the French system of classification, form the framework for such an institutionalization of the movements of workers and assessment of their abilities.
  17. The relative mobility of industrial jobs has been broken down into three constituent parts: A) the number of workers having changed firms in the period from one survey to the next, while remaining in the same industry; B) the number of workers recruited for an

- industrial job from a non-industrial job; C) the number of workers unemployed in the previous year holding an industrial job in the year of the survey. The sum of A+B+C represents the total number of industrial wage earners in the survey with less than one year seniority. This will be designated the number of job take-ups in the period under consideration. A or A+B are indicators of the mobility from one job to another which ends up in the industrial sector. Comparison between the two countries are made up using these mobility flows as a proportion of the industrial workforce.
18. The periods in question are from 1971-72 in France and from 1973-74 in Japan. These different periods of time make it even more essential to take into account only particularity marked disparities between the two countries.
  19. A third difference must be mentioned, although without any comment. The relative mobility flows between employees and the self-employed (which are included in the statistics used) seem to be higher in France. It is unlikely that this difference would call into question the identification made implicitly here between the disparities in the mobility rates for the working population as a whole and the disparities relating to employees alone.
  20. This phenomenon seems to be widespread throughout the labour market, as is suggested by comparison of the participation rates for women in the two countries in 1972: 15-25 years - Japan 51%, France 44%; 25-35 years, Japan 43%, France 55%; over 40 Japan 47%, France 41%. Participation rates for the 35-40 age group are roughly the same in both countries.
  21. The annual level of ail "new job take-ups" for workers already in employment - whether in industry or not - or who were unemployed in the previous year, represented, in the first half of the 1960s, 18% of total industrial employment in France, compared with 10% in Japan.
  22. Data is available on changes of firm relating to longer periods and thus less subject to the influence of the economic situation. In France, between 1965 and 1970, 27.7% of men in employment at both dates had changed firms at least once; in Japan, in the ten years from 1960 to 1970, the comparable figure is 31.5%. This is only slightly higher, although the period in question is twice as long. The differences are also very revealing if the rates of change of firms are broken down by age group. The relative rates (base 100 for the 20-30 age group) are as follows: 20-50 - France 53, Japan 64; over 50 - France 32, Japan 62. These figures confirm - in an area wider than just industry - that there is a trend towards greater relative mobility for young workers in France and older workers in Japan.<sup>23</sup> On this point see the thesis by Nohara already cited, particularly Ch. 4. These studies clearly highlight the end in large firms to "organize" the abolition of the restrictions on the movements of workers represented in France by trades, functions, jobs or even workplaces.
  24. This refers only to male manual workers.
  25. Already implicit in Table II.
  26. All categories added together, including management.
  27. Cf. the comparative studies in France and Germany already mentioned, which reveal a ratio of the order of 1.28 for male industrial employees and 1.30 for ail industrial employees. The two industrial countries with which the French situation is being compared thus turned out to be fairly similar from the point of view of the disparity between the wages of manual and non-manual workers in industry.
  28. The qualification system for manual workers is thus organized around a diploma acquired

- at the end of an apprenticeship. In this case, the influence of seniority is practically neutralized.
29. This respect is both a precondition for and a reflection of the apparently greater co-operation in these two countries between employers and employees in the case of conflicts over jobs or qualifications and between supervisory staff and those employed in execution tasks.
  30. If the relationship between pay and age for ail industrial employees (ail qualifications mixed together) are compared, a hierarchy of countries for men emerges: +100% in Japan; +67% in France; +34% in Germany (for those under 21 to those over 50). For women this influence is virtually nil in Japan and 22% for Germany and 33% for France.
  31. A reference of this type can obviously not be disassociated from the characteristics of the Japanese system of social security and the acceptance - or non-acceptance - by the state of the cost of dependents, including the cost of education of children.
  32. It might be possible to assume that there is a link between the differences in acquisition of industrial qualifications in the broadest sense and the differences in the institutionalization of the relationships between employers and employees, particularly where wages are concerned. In Japan, this procedure is relatively "concentrated" on the Spring negotiations (Shunto), but much more diffuse in France.
  33. The fact that it is impossible for the moment to take into account the years 1978-81 may have a considerable influence on the results obtained. It would be necessary to check in any follow-up to this article to what extent these years show a continuation of the trends that we are going to describe, or new developments, the nature and scope of which would then have to be examined.
  34. In neither of the two countries does there seem to be a trend towards a relative reduction in the categories of the labour force (according to the distinction already used - male manual workers; male non-manual workers; women) in which relative costs are highest.
  35. The data used take into account temporary workers with more than one month's seniority. It cannot thus be assumed *a priori* that this cessation of recruitment concerns only full-time workers. Moreover, it does not seem that the rate of part-time workers has increased significantly during the years under consideration. Data on changes within industry is not yet available, but for all non-agricultural employees this rate decreased from 599% to 5% between 1972 and 1978 for men, and increased from 17% to 20% for women. It should be added, by way of a point of reference, that in 1977 this rate in industry was 3.2% for men and 1498% for women (ail qualifications together). All these rates include temporary workers and day laborers and relate to ail firms, including those with less than ten employees, where large numbers of part-time female workers are concentrated.
  36. Data available for France of labour turnover show that it has remained at a high level since 1976 (of the order of 12% in industrial firms with more than 200 employees (Source: Ministry of Labour), with recruitment rates of the order of 11%); in Japan, where figures are available for longer periods, the rate of recruitment seems to have been 7.5% on average for the period 1971-74, and 2.5% for 1976-78. However, it must be made clear that these figures are for the recruitment of full-time male workers in firms with more than 1,000 employees (this figure is not available for France).
  37. In France, there was more substitution of non-manual workers for manual workers, particularly in large firms.
  38. It would appear, for example, that the crisis, at least not in its early years has not significantly changed manual-non-manual mobility flows (technicians, foremen). (Cf.

- Pohl and Soleilhavoup, 1981).
39. This strategy is linked with the procedures already described in other research on fragmentation of companies' creation of subsidiaries, etc., the use of sub-contracting and various new forms of contract. Cf. in particular Germe and Michon, 1979-80.
  40. It is obvious that the situation could be reversed, at least in France, if industrial wage earners seeking work were taken into account, which from one point of view would not be unreasonable.
  41. Both as we have seen in large firms, and in the area of mobility that they form with smaller firms.
  42. This difference in trend was significantly reduced by the increase in Japan in the weight of new recruits in industrial job take-ups, which was greater even before the crisis.
  43. These mechanisms already existed in Japan before the crisis and have not become more widespread since.

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