



“Summary of article by Robert Buchele and Jens Christiansen: Industrial Relations and Productivity Growth: A Comparative Perspective” in Frontier Issues in Economic Thought, Volume 4: The Changing Nature of Work. Island Press: Washington DC, 1998. pp. 32-35

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## **“Summary of article by Robert Buchele and Jens Christiansen: Industrial Relations and Productivity Growth: A Comparative Perspective”**

This paper presents a theoretical model of the relationship between industrial relations systems and productivity, and applies that model in an empirical investigation of productivity growth rates in the leading industrial countries. The model challenges the assumption, common in other recent theories, that productivity depends largely on the effort exerted by individual workers, and focuses instead on the social determinants of productivity. The empirical work explores the relationship between productivity growth, unemployment, the extent of cooperation in labor-management relations, and the strength of workers rights, in the "Group of Seven" nations.

### **THEORETICAL FRAMEWORK**

Labor productivity depends on both the efforts of the workforce and the effective organization of work. Management can elicit work effort either through coercion, in what can be called the "conflict model," or through inducement, in the "cooperative model."

Many recent theories of the labor process are based on the conflict model. In such theories, the threat of job loss secures the power of capital over labor. A worker's effort depends on the cost of job loss, which increases as unemployment rises; therefore increases in unemployment should raise labor productivity. The same effect would result from other factors that increase the cost of job loss, such as a reduction in the "social wage" (i.e., cutbacks in public-sector health and welfare benefits), or an increased differential between current earnings and the wages at other available jobs.

In the long run, productivity growth depends on technical change and innovation. The conflict model suggests that workers resist technical change whenever they can. An increase in unemployment undermines workers' ability to resist changes, and hence should be positively related to productivity gains in the long run.

### **CRITIQUE OF THE CONFLICT MODEL**

The conflict model is too narrow, both in its emphasis on the effort of individual workers, and in its exclusive focus on shop floor activity rather than the production process as a whole. The threat of dismissal is not a day-to-day concern for most primary sector workers, who are often protected by seniority rules or other due process procedures. Therefore, calculations based on the cost of individual job loss are inappropriate for this group. The fear of massive layoffs has

become important in recent years, but this concerns *collective* job loss due to larger economic forces, not individual job loss related to individual performance.

Furthermore, individual effort is not the decisive determinant of productivity in most modern production processes. In highly mechanized, integrated, or continuous flow processes, it is the effective interaction of many different people that leads to increases in the quantity and quality of output. Conversely, ineffective or uncoordinated interaction can waste labor hours and effort in any part of a large enterprise, not just among production workers.

Two stages can be distinguished in the transformation of labor hours into final output. The first is the transformation of hours into effort; this is the subject addressed in "efficiency wage" and "cost of job loss" models. The second, and perhaps more important, stage is the transformation of effort into final output. This involves the effective organization of work. Inefficiency in the first stage leads to waste of labor hours; inefficiency in the second stage leads to waste of labor effort.

## **THE COOPERATIVE MODEL**

In a cooperative system of industrial relations, increased worker participation can significantly raise the rate of productivity growth. With their unique experience and knowledge of the production process, workers can make important contributions to innovation. This allows gains in the effective organization of work, of a sort which is not readily available in the conflict model. But the cooperative model requires that workers have a stake in the long-run success of the enterprise that employs them; job security and profit-sharing measures are needed to motivate workers to innovate and improve the organization of production.

In such a context, the relationship of unemployment to productivity is quite different from that found in the conflict model. Long-term employment guarantees and other workers' rights on the job help create the basis for productivity-enhancing participation. High or fluctuating unemployment threatens the stability of employment, and thus tends to lower productivity growth in the cooperative model.

Productivity growth, in general, depends on the degree of cooperation achieved in labor-management relations. The effect of unemployment, or changes in workers' rights on the job, is ambiguous: if labor relations are antagonistic, unemployment (because it gives employers the upper hand) is good for productivity growth, and workers' rights are bad; if labor relations are cooperative, the reverse is true.

## **EMPIRICAL ANALYSIS**

The theoretical arguments developed here can be tested through international comparisons, using the wealth of data available for the seven largest industrial economies for the 1960s through the 1980s. An index of the cooperativeness of labor relations can be constructed, combining the prevalence of long-term employment, the ratio of supervisors to production workers (a lower ratio indicates greater cooperativeness), and the portion of total compensation paid as bonuses (because bonuses increase the workers' stake in the company's success). The ranking of the

countries, from least to most cooperative, is U.S., U.K., Canada, France, Germany, Italy, Japan.

Similarly, an index of workers' rights can be created, combining measures of the adequacy of unemployment insurance, legal restrictions on layoffs, the percent of health care expenditures funded by the government, public expenditures on labor market programs, level of unionization, and inter-industry wage dispersion (lower dispersion indicates greater workers' rights). In this case the ranking, from weakest to strongest rights, is U.S., Japan, Canada, Italy, France, U.K., Germany.

Both of these indices can be used in an analysis of international differences in productivity growth rates. There is a wide divergence among the seven countries in average annual growth rates of real GDP per hour of work, an aggregate measure of labor productivity. In each of the three periods examined here, 1960-73, 1973-79, and 1979-88, the U.S. had the slowest, and Canada the second-slowest, growth in productivity; the numbers, and the rankings of the other five countries, varied from one period to the next. (Japan's productivity growth was fastest in two of the three periods.)

The theory discussed above suggests several hypotheses: cooperation should have a positive effect on productivity; the interaction of average unemployment with cooperation should have a negative effect (since low unemployment and high cooperation, or vice versa, are good for productivity); and the interaction of workers' rights with cooperation should have a positive effect. All of these hypotheses are confirmed by regression analysis, a result which provides additional support for the theoretical model. Interpretation of the quantitative results is difficult because two of the key explanatory variables are arbitrarily scaled indices, not expressed in any natural units. Nonetheless, the qualitative results are entirely consistent with the theory, highlighting the role of cooperative systems of industrial relations in promoting productivity growth.