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Wage Distribution and Unemployment: The French Experience

By JEAN-PAUL FITOUSSI*

The increase in unemployment in Europe is often traced, at least partially, to the existence of some rigidities in the labor market. It is common wisdom that wage inflexibility and labor-market institutions increase the cost in terms of unemployment of adapting to shocks. In particular, minimum-wage legislation is seen to have an important responsibility in countries where it is binding. Such legislation may have at least two, non-mutually-exclusive, effects. It may prevent wage distribution from adjusting, counteracting an increase in wage inequality, and/or it may lead to mounting unemployment in the low-skill segment of the labor market.

In order to test these implications, I compare the evolution of wage distribution and unemployment structure in France, the United States, and the United Kingdom for the last 15–20 years.[1] These countries have been chosen as a representative sample of the considerable variation in the institutional structure of labor markets among the developed countries. In France, where the ratio of the minimum wage to the average wage has been consistently increased, contrary to the United States the wage distribution has remained fairly stable, over a period characterized by increasing income inequalities both in the United States and the United Kingdom. What then remains a puzzle is the fact that the unemployment structures of the three countries are roughly comparable: they all have experienced a marked increase in the rate of unemployment among unskilled workers, as in most countries of the OECD, however diverse are their institutional frameworks.

In the first section, I sketch some theoretical arguments which help explain the relationship between the earnings distribution and unemployment. In the following section I compare some facts regarding the evolution of the earnings distribution in the three countries considered. The third section is devoted to labor-market institutions. I focus on minimum-wage legislation in France, evaluating its specific effects by comparing the unemployment structure in France with that of the United States and the United Kingdom. In the fourth section, I conclude by considering the role that employment subsidies can play both in avoiding possible unemployment consequences of minimum wages and in alleviating poverty by raising the wage of the poorest workers.

I. From Wage Distribution to Unemployment

Why would unemployment be higher among the low-skilled workers? As Edmund S. Phelps (1972) pointed out, when low-skill jobs become less desirable, workers' propensity to quit increases. Furthermore, reservation wages for these employment opportunities may be relatively higher, reflecting workers' aversion to jobs that are perceived as demeaning in view of their low social status. Another point is that skilled workers can obtain low-skill work with some probability while waiting for an opening in their normal work.

Other reasons for unemployment can be found in some form of real wage inflexibility. In particular, minimum-wage legislation may cause workers whose marginal product is valued less than the minimum wage to be permanently unemployed. Under these circumstances a trade-off can arise between

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[1] For a detailed account of the results of this study, cf Fitoussi and Gylfi Zoëga (1993).

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wages and unemployment when the demand for unskilled workers falls.

This trade-off seems to be well grounded in general equilibrium theory. However, in such a framework, absent heroic assumptions on endowments, redistributive schemes may be necessary to obtain equilibrium wages above the subsistence level. Pierre Dehez and Fitoussi (1993) presents a general equilibrium model with several categories of labor, each characterized by an inelastic labor supply and a specific level of productivity; a minimum wage is also explicitly introduced. Two results of that model are relevant for the present discussion.

First, an increase in the minimum wage will always cause an increase in unemployment; it will lead to a decrease in the real wage of the more highly skilled labor categories when the types of labor are complements and to an increase when they are substitutes.[2]

Second, nothing guarantees the uniqueness of the solution in terms of unemployment and the real wage level, unless a very strong condition is imposed, namely, whenever there is unemployment in one category, even a high-skill one, the real wage in that category equals the minimum wage. Even if one accepts this stringent assumption, full employment can still be obtained through a wage-subsidy scheme if, and only if, the minimum net income received by a wage earner is strictly less than the weighted average of values of the marginal productivities. Such a solution may be spontaneously achieved if the wage structure is such that the degree of inequality in the wage distribution is smaller than the degree of inequality in values of the marginal productivities. Social norms may impose such an implicit system of subsidies. In effect, the set of relative wages is as much the result of social conventions as the result of spontaneous economic forces, as great economists like John Maynard Keynes and J. R. Hicks believed. A sense of fairness cannot be totally absent from the process of income distribution. Hence a move toward a greater degree of individualism, with each category trying to strictly maximize the quasi-rent from its human capital, can lead to an increase in unemployment in the low-skilled segment of the labor market. It could then well be that whether the minimum wage is binding or not depends also on social conventions. This implies that increased inequality and unemployment may go hand in hand, and that curing the second may require reducing wage inequality.

Hence, to reach full employment a wage-subsidy scheme may have to be imposed explicitly through taxation, and it will achieve its aim if the high-skilled workers do not reduce their labor supply by a critical amount (as assumed in that model) because of the increased taxation.

The latter result may explain why different patterns of wage distribution across countries are consistent with a similar evolution in the structure of unemployment. On the basis of the former result, one should expect, ceteris paribus, a smaller increase in inequality of wage distribution in countries characterized by a binding system of minimum wages.

II. Changes in the Earning Distribution in France, the United Kingdom, and the United States: Possible Causes

Contrary to the U.S. and the U.K. experiences, wage distribution inequality has increased only moderately in France. Overall earnings inequality fell slightly between 1984 and 1988 and has risen a little since then, with the increase occurring only at the top of the distribution (see Fitoussi and Zoëga, 1993).[3]

[2]Two types of labor are complements when the productivity of one category increases when the other category is used more intensively. They are substitutes if the converse is true.

[3]The results reported in Fitoussi and Zoéga (1993) for the more recent period in France are consistent with those of several other studies (see e.g., Steven J Davis, 1992; Peter Gottschalk, 1993; Paul Gregg and Stephen Machin, 1993).

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Two hypotheses for the different situation in France come to mind. First, France experienced demand and supply shifts that were different from those affecting the United States and the United Kingdom in the period considered. Second, as discussed above, government intervention in the labor market prevented the demand/supply shifts from affecting relative wages.

It is generally accepted that both supply and demand shifts are needed to explain the increased inequality of earnings in the United States. Data are consistent with a steadily increasing demand for skilled workers, and fluctuations in relative supply of workers with different skills and educational background. Factors such as immigration, public incentives to acquire training and education, demographic evolution, and increased participation of women in the labor force can affect the supply of labor. In the United States, the baby-boom generation and the increased college attendance during the Vietnam war may have played a substantial role. In France, immigration was important in the 1960's and early 1970's, but the overall changes in labor supply have not been qualitatively different from those in other Western countries.

On the demand side, some attention has been paid to the possible effects of international trade on goods produced by manufacturing industries employing a higher proportion of relatively unskilled workers. Increased international competition can reduce both the real average wage and the relative wages paid in those industries. This provides a possible explanation for wage stagnation in the United States after 1973 and in Europe after 1980. Furthermore, phenomena such as nonneutral technological progress at home and *outsourcing*, may have also contributed to the increase in the distribution inequality.

There is little doubt that these phenomena have played their part in France too and hence have contributed to the worsening of demand for unskilled workers. Thus, absent some strong evidence, the first hypothesis does not seem to hold. This leaves the second, namely, labor-market institutions, as the likely candidate to explain why wage distribution inequality has increased only moderately in France, relative to the United States and the United Kingdom.

III. Labor-Market Institutions and Their Possible Effect

The three countries have very different labor-market institutions. France and the United States have national minimum-wage legislation unlike the United Kingdom. The federal minimum wage in the United States was raised in 1981 and kept unchanged in nominal terms until spring 1990. As a result, the real minimum wage declined throughout this period. The opposite development has taken place in France. In the United Kingdom, 26 Wages Councils are supposed to provide protection for those not covered by collective agreements, but their action is limited in enforceability and coverage.

National minimum-wage legislation can compress the lower half of the wage distribution by raising the lowest wages and possibly creating unemployment in the process. In addition, it can prevent changes in the structure of labor demand from affecting the wages of the lowest-paid workers, again possibly affecting the structure of unemployment.

The ratio of the 90–50 to the 50–10 log wage differential is a measure of the skewness of the earnings distribution. This ratio, calculated by Davis (1993) for the year 1986, is much higher in France (1.67) than in either the United States (0.72) or the United Kingdom (1.12). That the wage compression at the lower end of the earnings distribution in France has taken place simultaneously with the large increase in wage dispersion in the other two countries suggests an important role for minimum wages.

During 1981–1984, the ratio of the minimum wage to the average real wage increased drastically in France. The economic consequences of minimum-wage legislation, such as a rising number of workers receiving the minimum wage and constant or rising real wages at the bottom of the earnings distribution, should thus be particularly evident in those years. It is also reasonable to expect stable or rising labor-participation

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rates among young low-skilled workers in view of the higher real wages, and this has effectively been the case, contrary to the experience of the United States and United Kingdom, where the participation rate has fallen. The first implication is easy to verify. The biggest increases in the minimum wage occurred in 1974 and in 1981–1982: in both cases the proportion of workers receiving the minimum wage doubled. The changes in the minimum wages are also reflected in the data on the wages received by the lowest-skilled workers. The correlation coefficient for changes in the minimum wage and real hourly wages is 0.96 for the lowest-skilled workers, declines over the six labor categories, and is 0.80 for the highest-skilled workers.

I have also performed some Granger causality tests[4] to verify whether current changes in the real value of the minimum wage carry information about future changes in the real average hourly wage of all workers. The results support the hypothesis of a causal link going from the real minimum wage to the real average wage, but not vice versa. The argument according to which inflation will reestablish the former wage distribution, however, does not hold whenever the minimum wage is fixed in real terms as is the case in France.

In order to test explicitly the impact of minimum wages on unemployment I estimated the elasticity of the rate of unemployment of each skill group with respect to the overall male unemployment rate for the period 1971–1988. It is then possible to check whether the regression residuals correspond to changes in the ratio of the minimum wage to the average wage. Alternatively, the sample can be split into two subperiods, the first for the estimation of the elasticity, and the second for out-of-sample predictions on the basis of total unemployment. A look at the residuals suggests that the first group, the less-skilled category with all male workers included, may have been affected by the minimum wage: the residuals are rising after 1981. Furthermore, splitting the sample and forecasting for 1982–1988 yields underestimates for those years and this group. The same can be said of the first three groups of young workers.

[4] I used 192 monthly observations on the 1977–1992 interval. Tests were performed employing 3, 6, 12, 24, and 30 lags of the independent variable. Significance levels were set at 5 percent.

TABLE 1—UNEMPLOYMENT AMONG MALE WORKERS ACCORDING TO LEVEL OF EDUCATION, FRANCE

Years of education	Percentage			
	1982	1985	1988	1991
0–8	6.5	10.2	9.1	10.5
9–10	6.1	6.9	5.8	5.7
11	4.4	7.6	6.5	5.7
12	3.4	5.0	3.9	4.9
13–15	2.2	3.2	3.2	2.9
16+	2.9	2.9	2.7	2.3

TABLE 2—UNEMPLOYMENT AMONG MALE WORKERS ACCORDING TO LEVEL OF EDUCATION, UNITED STATES

Years of education	Percentage		
	1977–1979	1980–1982	1980–1985
8–11	7.11	7.64	10.27
12	4.67	5.40	7.45
13–15	3.75	3.66	4.84
16	1.96	1.69	2.18

Source: Kevin M. Murphy and Robert H. Topel (1987).

There is thus some evidence that high minimum wages have caused greater unemployment among young unskilled workers. However, young workers belonging to the three lowest skill groups account only for about 1 percent of the approximately 7-percent rate of unemployment among French male workers in 1991. Thus, despite the impact of minimum wages on the rate of unemployment among these groups, overall unemployment may not be much affected.

Tables 1–3 give information on the unemployment structure in France, the United States, and the United Kingdom, respectively.

The divisions according to education level for the United States, United Kingdom, and

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TABLE 3—UNEMPLOYMENT AMONG MALE WORKERS ACCORDING TO LEVEL OF EDUCATION, UNITED KINGDOM

	Percentage		
Education levels	1974–1980	1981–1985	1986–1988
No qualification	6.46	17.65	16.40
Intermediate	3.35	8.74	7.72
University degree or equivalent	1.93	4.24	3.56

Source. Gregg and Machin (1993), who used figures from the General Household Survey 1974–1988.

France do not exactly correspond, but the pattern is the same: the relative share of the least skilled, with high-school education or less, has increased and those more educated have not experienced a significant rise in unemployment.

The main difference between the United States and the United Kingdom, on the one hand, and France, on the other, appears in changes in real wages and labor-force participation. However, the structure of unemployment is similar in all three countries, which suggests that the rate of unemployment is high among those earning the lowest wages even in the absence of strict minimum-wage legislation.

IV. Implications for Policy and Conclusions

The only adverse impact of a strict minimum-wage legislation suggested by the data is that of higher rates of unemployment among young unskilled workers. It is natural to ask whether some mechanism can be devised to improve the terms of the tradeoff between equality of wages and youth employment.

If a change in the relative supplies of skilled and unskilled workers causes a *transitory* increase in the rate of return to human capital, a medium-term solution may be achieved by subsidies for education and training of young workers. This would shorten the transition to equilibrium and may be used to affect the long-run equilibrium. These measures, however, do not help in the short run, and the most obvious solution in this horizon consists of wage subsidies to firms employing young unskilled workers. Wage subsidies are also the long-term response to changes in wage norms. In that case, the medium-run responses discussed above would be inappropriate since wages do not accurately reflect the relative productivity of workers. If the demand for skills has increased *permanently*, wage subsidies may slow the transition to the new equilibrium, but they may still be preferable to welfare payments that create incentives for nonemployment.

There seem to be at least three ways to implement the idea of wage subsidies: first, by giving tax credits to the workers themselves to supplement their wage receipts; second, by giving firms a tax credit based on wage payments to low-skilled workers; and third, by paying to firms some fixed amount for each employee, independently of the wage paid.

The first option might have a negative effect on the workers' morale by making evident their low earned income. The second one may give firms the incentive to label workers as low-skilled in order to qualify for the tax credit. Some firms may even only engage in the activity of hiring workers and collecting tax credits. The third possibility seems the most appropriate. First, it could be implemented fairly easily by exempting employers from disbursing social-security contributions on an amount equivalent to the minimum wage for each worker employed, even when the workers' total wage is higher than this minimum. Second, it does not seem to suffer from the drawbacks affecting the other two mechanisms.

Minimum-wage laws can achieve a reduction of income inequality by compressing the wage distribution and can make the lowest-paid workers better off in both absolute and relative terms, despite a low and falling demand for unskilled workers. No significant evidence has been found to support the correlation between minimum wages and overall unemployment. Hence, the social cost appears to be moderate. Furthermore, a suitable system of subsidies, like the one described above, may counterbalance the negative impact on youth unem-

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ployment in the case of strict minimum-wage legislation, as in France, and may give firms an incentive to increase the wage paid to less-skilled workers in those countries where minimum wage laws are absent or not binding. The situation of the working poor would then be positively affected.

REFERENCES

Davis, Steven J. "Cross-Country Patterns of Change in Relative Wages." *National Bureau of Economic Research* (Cambridge, MA) *Working Paper* No. 4085, 1992.

Dehez, Pierre and Fitoussi, Jean-Paul. "Revenu Minimum, Allocations-Chômage et Subventions à l'Emploi: Un Modèle Macroéconomique Simple." Observatoire Français des Conjonctures Economiques (Paris) Document de Travail, November 1993.

Fitoussi, Jean-Paul and Zoëga, Gylfi. "Minimum Wage and Unemployment: The Case for Wage Subsidies." Mimeo, Observatoire Français des Conjonctures Economiques (Paris), September 1993.

Gottschalk, Peter. "Changes in Equality of Family Income in Seven Industrialized Countries." *American Economic Review,* May 1993 (*Papers and Proceedings*), *83*(2), pp. 136–42.

Gregg, Paul and Machin, Stephen. "Is the U.K. Rise in Inequality Different?" Mimeo, London School of Economics, 1993.

Murphy, Kevin M. and Topel, Robert H. "The Evolution of Unemployment in the United States: 1968–1985," in Stanley Fischer, ed., *NBER macroeconomics annual*. Cambridge, MA: MIT Press, 1987, pp. 11–58.

Phelps, Edmund S. *Inflation policy and unemployment theory: The cost benefit approach to monetary planning*. New York: Norton, 1972.

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