

Jobless growth: appropriability, factor substitution, and unemployment*

A comment

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Caballero and Hammour present a fresh view of Eurosclerosis, especially of chronic high unemployment. In the earlier standard view, chronic unemployment results from real wages that are fixed at levels that preclude full employment. In addition, generous unemployment compensation, unlimited in duration, is paid to keep the unemployed happy. Wage rigidity is central to the story—if employers could set wages freely, they could attract many of the unemployed by offering wages below the current artificially high level but above the level of the dole.

In Caballero and Hammour's new view, wages are not rigid. Quite the opposite—the wage bargain would not be honored even if both parties intended it to be in advance. Wages are adjusted, through a new bargain, each period. The outcome of the bargain is such that separations would be efficient under normal conditions. The resulting equilibrium would be the standard competitive equilibrium with complete wage flexibility if there were no other complicating factors such as job search. Caballero and Hammour—following the leads of Diamond (1982) and Mortensen (1982)—have banished arbitrary assumptions of wage rigidity in favor of a full economic analysis.

Another important body of thought—the efficiency wage model of Shapiro and Stiglitz (1984) and others—underlies the unemployment analysis in the paper, though the connection is not stressed by the authors. To point out the relation and explain some aspects of the paper that may escape the

*This research was supported by the National Science Foundation under grant SOC-9410039 and is part of the research program on Economic Fluctuations and Growth of the NEAR

nonspecialist, let me strip the model down to its essentials and point out its grounding in efficiency wages.

First, the Diamond-Mortensen family of labor-market models has a simple and compelling view of wage and employment determination. Each period, the worker and employer consider the joint value of the match, defined as the value they would achieve by continuing the match less the sum of the values they would achieve by terminating the match. If the joint value is positive, employment occurs. The worker earns his or her breakup value plus a fraction of the joint value, and the employer receives its breakup value plus the remainder of the joint value. If the joint value is negative, employment ends. Decisions to continue or end employment are privately efficient.

The literature in the Diamond-Mortensen tradition has stressed that investment in match capital is unlikely to be efficient, because each party receives only a share of the returns to any investment that party undertakes.

Now to the new ideas in the Caballero-Hammour paper. Labor uses its political power to impose a dissipated resource cost, x_f , on the employer in the event of a breakup. It is key that the cost is dissipative and not a transfer, as discussed in footnote 19 of their paper. Transfers have no effect on the substance of the employment relationship because they do not enter joint value. The dissipative cost increases joint value because it is incurred only upon breakup. It increases earnings by the worker's bargaining share. Profit falls correspondingly. The immediate result is not an equilibrium in the model, because firms no longer satisfy the zero-profit condition.

In order to restore the lost profit, workers' breakup values must fall. The higher the unemployment rate, the lower the breakup value, because higher unemployment means higher search costs to find the next job after termination. Here is the basic principle of the efficiency-wage model in action.

I have sketched the basic apparatus of the paper in linking labor's political intervention—the institution through government of dissipative costs such as notice periods and costly legal procedures—and the resulting higher unemployment. According to the authors, these costs—and presumably the consequent excess unemployment—are particularly high in France.

Now for some comments on this setup. First, the paper well illustrates the fault-line in current thought about the governance of the employment relationship (see Hall, 1995, for further discussion along this line). One line of thought, with roots in the mechanism-design literature, presumes that employers can commit to subsequent wage and employment policies. The employment bargain will be shaped in advance to maximize joint value, considering both the need to provide incentives for match-specific investments by both sides and the need to generate efficient separations. In the face of bilateral information restrictions, the optimal bargain will compromise in both areas—in particular, it will accept some inefficiency in separations

in order to induce more efficient investment in the match. For example, employers might commit not to cut wages under any conditions in order to induce workers to sink major match-specific costs, such as the costs of moving to a new city. Later, if the match should be saved by lowering wages, an inefficient separation will occur because of the fixed-wage employment bargain. See Hall and Lazear (1984) and Kahn and Huberman (1988) for models with this character.

The Diamond-Mortensen view—to which Caballero and Hammour are firmly wedded—has swept the field of employment theory. It dismisses the notion that the parties to the employment bargain would deliberately contract for inefficiency in separations in order to improve incentives for match-specific investment. The attack is fundamental. It is irrational to adhere later to the original wage bargain if an inefficient separation looms. Instead, the parties should make a new bargain that will avoid the separation and make both of them better off. Further, the parties should anticipate their later rational reaction to events that might cause an inefficient separation, and make investment decisions on the rational belief that the employment bargain will be altered through renegotiation. Hence, the claim that these contracts induce constrained-efficient investment in match-specific capital is false. To put it differently, these contracts fail the test of subgame perfection.

Caballero and Hammour use the term “appropriable” for the match-specific investments that cannot be protected by contracts because of the inability of the parties to stop themselves from renegotiating and splitting the value of the investments, no matter who made them in the first place.

Second, I would like to draw out a little more the relation between the unemployment theory in this paper and the efficiency-wage theory. In the standard efficiency-wage setup, the only match-specific capital is search capital—the joint value of the match arises solely because of the costs the worker would incur to find another job. There must be positive match capital in equilibrium to prevent the worker from shirking. Hence, there is positive unemployment in equilibrium.

In Caballero and Hammour’s model, shirking does not arise, but search capital must be positive in equilibrium in order to tilt the payoffs from the employment relationship in favor of the employer sufficiently to induce investments that the employer must make for employment to occur in the first place. More search capital is needed if another form of match capital, created by the dissipative termination cost, is added to the employment relationship. An interesting related analysis of efficiency wages with endogenous investment is in Ramey and Watson (1997).

Why does organized labor push so hard for measures that have essentially no net benefit for future employed workers and that raise unemployment so much? One reason may be opportunism by those employed at the time the

measure goes into effect. This cohort gains even though labor in general loses. A second reason is that influential parties in the political process—union leaders, bureaucrats, and politicians—benefit personally from the creation of rent-seeking opportunities. Many of the dissipative costs that drive the Caballero-Hammour model are received as earnings by those at the heart of the rent-seeking process.

Are there lessons for the United States in the Caballero-Hammour analysis of Eurosclerosis? With U.S. unemployment at a 25-year low as I write, we certainly have no adverse trend to explain, as there is in Europe. The United States adopted a plant-closing law about 10 years ago, which may impose dissipative costs of the type considered in the paper which appear to be important in Europe. But the U.S. law apparently has not overcome the favorable trend associated with the changing composition of the labor force toward educated workers looking for desk jobs. The growing part of the labor market in this country seems quite free of the influences described in the paper.

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