

Equilibrium Unemployment as a Worker Discipline Device: Reply

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We agree with Clive Bull's comment on two points, but take slight issue with him on a third. We agree that our 1984 paper was very interesting. We also agree that if workers are risk averse and if quits could easily be differentiated from fires, then the firm would offer unemployment insurance for workers who quit. Bull's remarks about why such insurance is not offered in our model, and regarding the effect of such insurance on equilibrium, are not quite correct, however.

Because of space limitations, in our earlier paper we were unable to expand on why we assumed that firms could not distinguish quits from fires for the purposes of unemployment compensation. Neither did we fully describe the role that this assumption played in our analysis. In fact, the equilibrium would be very different if employers could distinguish between quits and fires. If such distinctions are possible, and if workers were risk neutral, employers would shift much of workers' compensation into severance pay for quitters, yet provide no more than the legal minimum of pay (\bar{w}) to fired shirkers. This shift would reduce the equilibrium unemployment rate, possibly to zero. If workers are risk averse, however, such compensation shifting would be limited, and equilibrium unemployment would persist. In either case, Bull's remark that employers' ability to distinguish quits from fires would have "no impact on the incentive to shirk" is incorrect. In the new equilibrium we would need to distinguish V_Q , the expected lifetime utility of unemployed workers who had quit their jobs, and V_F , expected utility for those who were fired.

In our earlier paper we made the assumption that employers would find it rather dif-

ficult to distinguish between quits and fires. In particular, it would appear difficult to prove that a worker shirked, rather than quit, especially if the differences in payments to workers in those two groups is large. The reason we did not permit such distinctions was that it seemed to us, in general, to be a reasonably easy matter for either side of the contract to convert a "fire" into a "quit" and vice versa.

Assume that a worker receives unemployment compensation if he quits, but not if he is fired (in contrast with our public unemployment compensation programs). Then a worker who has shirked and been caught at it has an incentive to run to his boss and announce that he has quit, before he receives a notice that he is being fired. In practice, firms frequently give workers who have misbehaved a "second chance"; but if the worker then could announce that he was quitting, any such second chance would prove costly to the firm. Similarly, the firm, upon hearing rumors that, for one reason or another, one of its employees was contemplating quitting, would immediately fire him, claiming that he was shirking.

The costs associated with monitoring whether a worker had or had not shirked seem large; and the costs imposed on the employer, were he required to document thoroughly every firing, seem sufficiently great as to make this an unattractive policy. The considerations that lie behind this discussion are clearly beyond the scope of the formal model we developed; and clearly there are circumstances in which it is possible to differentiate between quits and fires. Such a distinction relies upon an outside (third) party observing workers' effort levels, however. Our analysis applies to situations (that are common) in which employers find it hard to observe effort; third parties will in general find effort monitoring at least as costly. In practice, monitoring and "management" or

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"supervision" are joint products, and third-party monitoring is not observed. Any modeling requires simplification. In our judgment, the assumption that it was impossible to differentiate between quits and fires seemed better than the alternative polar assumption.

Bull's point about the importance of firms' abilities to distinguish quit and fires is legitimate. He seems, however, to have missed one of the two central messages of our paper. Whether or not one can or cannot distinguish between quits and fires, the equilibrium contract is likely not to be constrained Pareto efficient.

First, when there is full employment (as in most of the implicit contract literature), the incentive for providing unemployment insurance is that the firm can obtain workers at lower total expected (present discounted value of) costs. Here, the firm has no difficulty obtaining workers: there is a reserve army of the unemployed. Bull's remarks about the marginal rate of substitution (*MRS*) between wages, w , and unemployment compensation, w^u , reveal that he is missing this point: workers will trade off w and w^u (i.e., have a *negative MRS*), while firms find that a higher w^u requires a higher w ; firms have a *positive MRS*. It is the differing *signs* of these *MRS*s, not the magnitudes, that is the fundamental problem. No amount of risk aversion will change this sign pattern. It is for this reason that firms will provide no more than the legal minimum of unemployment compensation if they cannot distinguish quits and fires. In general, there is no reason to expect the equilibrium rate of unemployment insurance, so determined, to be socially optimal. The socially optimal rate of unemployment benefits balances the in-

surance aspects of such benefits against the added monitoring costs they necessitate. Firms, however, do not account for the insurance aspects of unemployment benefits since they have no trouble attracting unemployed workers (especially when such benefits are low!).

Second, in the case where quits can be distinguished from fires, the decision to provide unemployment insurance by one firm imposes an externality on other firms. This externality arises because unemployment insurance influences the quit rate, which in turn affects the turnover rate. Increasing the turnover rate reduces the expected duration in the unemployment pool, and hence necessitates an increase in monitoring expenses and/or wages on the part of other firms to avoid shirking. This suggests that the firm may provide too high an unemployment benefit.

The exact balancing of the considerations that go into determining the socially optimal level of unemployment compensation is a complicated matter, which would take us beyond the scope of this reply. It is clear, however, that whether firms can or cannot differentiate between quits and fires, the provision of unemployment insurance by employers will not be at a socially optimal level.

REFERENCES

- Bull, Clive, "Equilibrium Unemployment as a Worker Discipline Device: Comment," *American Economic Review*, September 1985, 75, 890-91.
- Shapiro, Carl and Stiglitz, Joseph E., "Equilibrium Unemployment as a Worker Discipline Device," *American Economic Review*, June 1984, 74, 433-44.

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