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Commentary

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With the advent of the European Monetary Union (EMU), members will lose one policy tool (the exchange rate) for dealing with asymmetric shocks to their economies. Consequently, some other macroeconomic variable or market must become more flexible to eliminate excess demand or supply of output and employment. It is generally argued that labor markets must become more flexible in Europe to compensate for the loss of independent monetary policies as a stabilization tool.

It is generally believed that firing costs in Europe are much higher than in the United States, hence, to make labor markets more flexible, firing costs need to be lowered. Firing costs are affected by labor legislation, and therefore, politics enter the picture when discussing whether or not to lower firing costs. While lowering firing costs will benefit unemployed workers, firing costs generate rents for employed workers and it is unlikely that workers would give up those rents willingly. Therefore, to study the political viability of policies aimed at lowering firing costs, we need an economic model that reflects the benefits and costs of firing costs in a dynamic model of employment. This is the task undertaken by Gilles Saint-Paul in his paper.

Saint-Paul uses a pseudo-search/matching model with exogenous productivity growth to study how firing costs affect the length of job matches. A worker's productivity is constant during a match, although average productivity is rising in the economy. Upon being fired, a worker instantly acquires the average level of productivity in the economy.

Firing costs generate "rents" for workers that must be paid out of firm profits: After some critical date, firms subsidize workers whose wage exceeds their productivity, since this is cheaper than firing the workers and incurring the firing cost. Thus, not surprisingly, Saint-Paul finds that firing costs lengthen job matches and reduce the probability that the unemployed workers find jobs.

The firing cost has three key effects on workers' lifetime utility:

- It lengthens the period they collect the rent (improves utility).
- It lowers the average productivity, and thus, lifetime income (reduces utility).
- It worsens the probability of finding a job when unemployed (reduces utility).

Having ascertained the benefits and costs to workers from the existence of firing costs, Saint-Paul then asks, "Who would favor an increase in the magnitude of firing costs?"

He considers a majority-rule voting equilibrium to see how individual workers would vote between two possible firing cost policies to see if a majority of workers would support changing the firing cost from its current level. The author then examines who would prefer moving towards a higher firing cost from the low firing cost regime and vice versa. It is clear that unemployed workers always favor lowering firing costs, since this would shorten job matches and increase their probability of finding a job.

What about employed workers? They typically divide into three groups based on the relative age of their job. Because the rent is acquired towards the end of a match, the present discounted value of the rent in the future is of less value to workers in "young" matches. In general, the last two effects dominate for these workers so they oppose a policy that increases firing costs.

Workers in old matches are collecting the largest rent so they benefit the most from the first effect. Because they are near

the end of their current match, however, they worry the most about finding a job since they soon will be unemployed. This latter effect is dominant for them.

Since the workers in relatively young and relatively old matches support lowering firing costs, who is left to support the policy? Well, the only workers left are those in middle-age matches. The middle-age workers are the ones just entering the rent-collecting phase so reducing firing costs significantly reduces the rents they are about to collect. Furthermore, their match is still sufficiently young to make the future cost of lower job-finding probability of little importance. Consequently, this is the group that would actually support *increasing* firing costs.

Saint-Paul shows that if high firing costs are the status quo, most of the cases correspond to a majority of workers favoring a move to lower firing costs. On the other hand, if a low-firing cost economy is the status quo, then the outcome is not so clear. Under some parameterizations of the model, workers would be in favor of moving to a more rigid economy, while under other parameterizations they will be opposed to it. Finally, they may be divided over whether or not to move to a more rigid economy.

As a friend of mine is fond of saying, the value of discussing a paper is that you have to dig into the assumptions of the model and that is where all of the bodies are buried. Although all models have bodies buried in them, with Saint-Paul's paper I often felt I was on the trail of a serial killer. So where are the bodies buried in this model?

My first question is—What are "firms" in this model? Who owns them and does it matter? In perfect competition with no fixed costs or capital, the wage bill is equal to output, so workers extract the entire surplus from production. This is a common view of firms in all constant-returns-to-scale models of production—input payments exhaust the output. Hence, firms are merely a veil.

With firing costs, however, the firms receive some surplus early in the match and then subsidize workers later in the match. What do firms do with the surplus and how do they pay for the subsidy that occurs later in the match? If they save it to finance the subsidy later, then there should be an intertemporal financing constraint on the firms, much like a firm faces with pension fund obligations. An intertemporal financing condition is missing in the model. If firms save the surplus early in the match and use it to pay the rent to workers later in the match, then workers (in effect) are paying for the firing costs via smaller shares of the output earlier in the match—something Saint-Paul was trying to avoid.

If firms do not save their share of the surplus, what do they do with it? Do the owners of the firm consume it? Is it transferred to workers via lump-sum equiproportionate transfers? If matches were perfectly deterministic in length, then an intertemporal compensation scheme would require firms have zero surpluses on net. In this model, however, some matches end early for random reasons. These firms clearly end up with net surpluses from the match. What do they do with them? The model is completely silent on this entire issue. If firm owners receive some of the surplus from trade, then they too will have a stake, and presumably a vote, in any referendum on firing cost. But alas, in this model, only workers vote—owners of firms do not.

Why do workers prefer this type of compensation scheme to some other? The author assumes that financial markets are perfect. This implies that workers can borrow and lend to achieve their desired consumption path over time regardless of the timing of income receipts. In this case, workers simply want the *highest* lifetime present discounted value of income, which occurs in a perfectly competitive labor market. Thus, why would workers want to distort markets by voting for firing costs?

Another problem I have is with the voting analysis in the model. Since voting is over a single issue (firing costs), then the median voter model should work well. Simply determine the magnitude of the firing costs that maximizes the utility of

each worker by match age and take the median value of those maximums. The only remaining question is whether the median voter's preferred firing cost is zero.

Unfortunately, in this model, preferences over firing costs are not single-peaked. The reason for this is that a vote by the majority to lower firing costs would cause workers in old matches to be fired immediately. Being fired lowers utility due to job loss but also causes an immediate increase in productivity that raises the probability of finding a job and, therefore, increases lifetime utility. Hence, there is a certain age of a match in which these two forces offset each other and workers are indifferent to lowering firing costs and leaving them unchanged. Consequently, preferences over firing-cost policies are not single-peaked, which creates multiplicity of voting equilibria and possibly Condorcet voting cycles.[1] This greatly complicates the analysis of the voting equilibrium and requires numerical analysis to study the problem.

There is an easy way around this voting complexity—grandfathering. The source of the voting complexity arises from the threat that older workers will be fired if firing costs are lowered. To eliminate this, simply grandfather all current matches against the change in firing costs and only apply the lower firing costs to new matches. Grandfathering current voters from the undesirable consequences of changed policies is an age-old method of pushing through socially desirable policies. As an example, a university I was once associated with wanted to lower its faculty contributions to TIAA-CREF to reduce generous labor benefits. Not surprisingly, this proposal was a nonstarter with the faculty until the administration grandfathered the current faculty from the benefit cuts and imposed the cuts on new hires from a certain date onward. This policy was supported by the faculty and implemented. The moral of the story is that grandfathering dramatically alters people's voting behavior and can greatly simplify the voting outcome.

Another problem I have with the model is that firms supposedly have free entry and do not face search frictions in finding workers, whereas workers do face some search frictions in finding firms. So, I am puzzled why anyone is unemployed in equilibrium since you need both sides to face frictions. Unemployment implies workers can't find firms and vice versa. But if firms face no search frictions, then as soon as a match ends, a competitive firm should swoop in and instantly hire the worker. In fact, the current firm should simply rehire the worker instantly, since productivity increases occur instantly and costlessly upon separation.[2] If firms do face search frictions, then it would seem that the free-entry condition does not produce a zero-valued unmatched firm and the solutions to the model are thus incorrect.

In summary, I conclude that the author is working on an interesting and important labor problem, particularly as it applies to Europe. He also has adopted an interesting model for studying the issue and has obtained some interesting and plausible results for thinking about how voters will line up either in favor of or in opposition to changing labor laws. Unfortunately, for my tastes, there are some additional bodies buried in the model's intellectual basement that need to be exhumed before I believe the author has accurately captured the essence of the problem.

[1] Condorcet cycles arise when preferences over outcomes are intransitive, i.e., A is preferred to B, B is preferred to C, but C is preferred to A.

[2] A similar problem occurs in monetary search models with barter trade; pairs of traders who have a double-coincidence of wants meet and trade but then separate. It seems irrational to separate once traders pair up in successful matches but this is the typical assumption of money search models and, after reading this paper, apparently also is typical of labor search models.