Optimal Firing Costs and Labor Market Equilibrium

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Abstract

We provide a theoretical microfoundation of the inverse relationship between firing costs and labor market tightness, evaluating its effects on labor market performance in a matching model *à la* (Mortensen and Pissarides 1994). Results are clear cut and generalizes our previous work. First, a downward sloping firing costs function arises when the elasticity of the separation rate with respect to firing costs is equal to one, that is when the two opposite effects of layoffs costs on the bargaining wage perfectly compensate. Second, different configurations of the labor market structure deriving from the optimal behavior of the economic agents give rise to multiple equilibria: high average duration of unemployment will produce a labor market with low flows and wage and high strictness of employment protection. Vice versa, short duration in the unemployment status will produce high flows and wage and low level of firing costs.

JEL classifications: J41, J63, J64
Keywords: Firing Costs, Multiple Equilibria, Efficiency

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"However we account for the judicial process, the institutional framework is being continuously and incrementally modified by the purposive activities of organizations bringing cases before the court"
(D.C. North, *Institutions, Institutional Change and Economic Performance*, 1990)

The strictness of employment protection legislation (EPL) has been blamed for the disappointing labor market performance in Europe. Strict EPL makes the labor market "sclerotic", reducing job turnover and increasing unemployment spell. According to Nickell (1997), this is the received wisdom. The causality nexus is from EPL to labor market performance. In this paper we explore an alternative framework that supports a reverse causality nexus: poor labor market performance stands liable for the high level of EPL.

It is well known that EPL has two main components: severance payments, a transfer the worker receives at the end of the job relationship, and firing costs, a deadweight loss associated with job destruction. As for the former, Lazear (1990) has shown that, if market are complete and competitive, the effects on overall unemployment are neutral, since the severance payment is neutralized by the bargaining between workers and firms. As a consequence of this neutrality result, most of the literature has focused on the analysis of the effects of firing costs.

The interactions between shocks and institutions and the role of firing costs in the debate on the so-called Euroslerosis has been investigated, among others, by Bentolila and Bertola (1990), Blanchard (2000), Blanchard and Portugal (2001) and Ljungqvist (2002). In a matching framework, Mortensen and Pissarides (1999) point out the ambiguous effects of layoff costs on equilibrium unemployment by the reduction of the inflows into unemployment (caused by the longer duration of a filled job) and the increase of the average duration of unemployment (because of the negative effects on the propensity to hire).

More recently, economic literature has begun to investigate the evolution of institutions and the complexity of the employment protection systems.

Blanchard and Tirole (2004) show that firing costs are the natural counterpart to the state provision of unemployment benefits. The second requires the first, so that they are the basic components of the optimal set of labor market institutions. The authors assess this principle in a basic framework where workers are risk adverse and adjust it to take into account the imperfections of the labor market, such as limits on insurance, difficulties for firms to pay layoff taxes, ex-post wage bargaining and heterogeneity of workers and/or firms. Furthermore, they argue that an issue still to be explored is the role of judges who, in many European countries, often have to play the role to decide whether layoffs are justified or not. Since the implications of imperfections require to adapt the layoff taxes to particular situations, they state that this could be done, among others, by leaving some discretion to judges.[1]

Donohue and Siegelman (1995), Berger (1997) and Ichino, Polo, and Rettore (2002) investigate the role of courts in affecting the strictness of employment protection legislation. In a very heterogeneous countries like West Germany, Italy and U.S., these authors show that the amount of legal provisions increases when the economy is in downturn, because tribunals tend to interpret the law in a way favorable to workers when it is difficult to find job opportunities.

According to these contributions, Bertola, Boeri, and Cazes (1999) propose to revisit the criteria of the EPL index formulated by OECD (1995, 1999), in order to take into account the growing complexity of the employment protection system of each country. They emphasize how the strictness of EPL could be affected by the interpretation activity of judges, showing that the higher is the percentage of sentences favorable to workers, the higher is the number of cases taken to court.[2]

In this paper we provide a microfoundation of the endogeneity of firing costs and evaluate its effects on labor market performance in a matching model *à la* Mortensen and Pissarides (1994).

The results here obtained are an important generalization of our previous work (Saltari and Tilli (2004)) for two main reasons. First, in the present paper we use a matching model with endogenous job destruction (whereas in our previous paper we hypothesized exogenous job destruction), so that we are able to analyze the effects of endogenous firing costs not only on the job creation decisions but also on the job destruction side. This extension allow us to study the interactions between endogenous firing costs and the labor market structure in terms of market tightness and worker and job flows.

The paper is organized as follows. Section 1 describes the labor market while section 2 provides a microfoundation of the firing costs function. Section 3 completes the model on the demand side. Section 4 discusses equilibrium. Finally, section 5 concludes.

1 The Labor Market

We now describe very briefly the main characteristics of the labor market. The economy is made up of a continuum of risk-neutral workers and firms, which consume all of their income and discount future at a constant rate r. Every worker may be employed or unemployed. When employed, a worker receives a wage w; when unemployed, she enjoys leisure b. Every firm in the market has a job that may be either filled or vacant. If it is filled the economic activity yields a product y: hence, the profit obtained by the

[1] See also Blanchard and Tirole (2003) which focus the considerations in the main text on the French employment protection system.

[2] See also Boeri, Garibaldi, Macis, and Maggioni (2002).

firm is $y - w$. If instead the job is vacant, the firm incurs a cost c for its maintenance.

Unemployed workers and vacancies randomly match according to a Poisson process. If the unemployed workers are the only job seekers and they search with fixed intensity of one unit each, and firms also search with fixed intensity of one unit for each job vacancy, the matching function gives: $h = h(u, v)$ where h denotes the flow of new matches, u is the unemployment rate and v is the vacancy rate.

The matching function is assumed (on the ground of empirical plausibility, see Petrongolo and Pissarides (2001) for a survey) to be increasing in each argument and to have constant return to scale overall. Furthermore, it is assumed to be continuous and differentiable, with positive first partial derivatives and negative second derivatives.

By the homogeneity property of the matching function, we can define the average rate at which vacancies meet potential partners by the following "intensive" representation: $m(\theta) = \frac{h(u,v)}{v}$ with $m'(\theta) < 0$ and elasticity $-\eta(\theta) \in (-1, 0)$. θ is the ratio between vacancies and unemployed workers and can be interpreted as a convenient measure of the labour market tightness.

Similarly, $\frac{h(u,v)}{u}$ is the probability for an unemployed worker to find a job. Simple algebra shows that: $\frac{h(u,v)}{u} = \theta m(\theta)$. The linear homogeneity of the matching function implies that $\theta m(\theta)$ is increasing with θ. The average durations of unemployment and vacancies are respectively $\frac{1}{\theta m(\theta)}$ and $\frac{1}{m(\theta)}$. This implies that the duration of unemployment decreases with the labour market tightness while the duration of a vacant job increases with θ. The dependence of the two transition probabilities on the relative number of traders implies the existence of a trading externality (Diamond (1982)). During a small interval of time there is a positive probability that a vacant job will not be filled as well as another positive probability that an unemployed worker will not find a job. This probability cannot be brought to zero by any price adjustment. Increasing vacancies causes a congestion on other firms as increasing unemployed job searchers causes a congestion on other workers.

We characterize the EPL as a cost F on job destruction which affects the flows in and out of unemployment. Note that we do not consider the existence of severance payments and their role of insurance against risk. An idiosyncratic shock hit the single firm at rate s. In order to capture the effects of firing costs on hiring and layoffs, we assume that the exit rate from unemployment $\theta m(\theta)$ is affected in a multiplicative way by a function $\phi(F)$, which is decreasing and linear in F. At the same time, since firing costs also affect layoffs, we assume that the separation rate is a decreasing function of F, $s(F)$, with positive second derivative.[3]

[3]The assumption on the second derivative of $\phi(F)$ and $s(F)$ are consistent with the

The measure of workers who enter unemployment is $s(F)(1-u)$, while the measure of workers who leave unemployment is $\theta m(\theta) u$. The dynamics of unemployment is given by the difference between inflows and outflows: $\dot{u} = s(F)(1-u) - \theta m(\theta) u$. This differential equation defines dynamics converging to the unique steady state $u = \frac{s(F)}{s(F)+\theta m(\theta)}$ showing that determines uniquely the unemployment rate for a given value of F and θ.

Consider the "value" V_E of being an employed worker. This is defined by the following equation (since attention is restricted to steady state equilibria, time subscripts have been dropped):

$$rV_E = w - s(F)(V_E - V_U) \tag{1}$$

An employed worker earns a wage w, but looses her job with the flow probability $s(F)$. In the latter case, her utility jumps down to that of an unemployed worker. In turn, the value V_U of being an unemployed worker is given by:

$$rV_U = b + \phi(F)\,\theta m(\theta)(V_E - V_U) \tag{2}$$

The unemployed worker earns a flow utility b, representing the value of leisure plus unemployment benefits, if any; further, with probability $\theta m(\theta)$, she finds employment and changes her status.

As for the firm, when it posts a new vacancy, the following Bellman equation must be satisfied:

$$rV_V = -c + \phi(F)\, m(\theta)(V_F - V_V) \tag{3}$$

where V_V is the value of a vacant job. The firm incurs in a flow search cost equal to c and has a positive probability $m(\theta)$ to fill the job and jumps to the productive state V_F.

In turn, this value solves:

$$rV_F = y - w - s(F)(V_F + F - V_V) \tag{4}$$

Equation (4) states that employing a worker yields a flow profit equal to $y - w$ net of the change in state which occurs with flow probability $s(F)$.

In equilibrium, there no unexploited profit opportunities, so that the free entry condition holds $V_V = 0$. Using this, equation (3) can be rewritten as $V_F = \frac{c}{m(\theta)}$, which states that the value of a filled job must be equal to its expected maintenance cost for the period it remains vacant.

As usual, we assume that the surplus produced by workers and firms is shared by Nash bargaining. The maximization of a geometric average of the surplus weighed with the relative bargaining powers determines the following sharing rule:

empirical evidence. See Boeri, Ruiz, and Galasso (2003).

$$V_E - V_U = \frac{\beta}{1-\beta}\left(V_F + F - V_V\right) \tag{5}$$

where β represents the bargaining power of the worker.

Replacing equations (1), (2), (4) and (3) into equation (5), we get the following wage equation:

$$w\left(\theta, F\right) = \left(1-\beta\right)b + \beta\left[y + c\theta - s\left(F\right)F\right] \tag{6}$$

Equation (6) states that the bargaining wage is an increasing function of the labor market tightness, since, when it increases, there are more opportunities for worker to find a new job. With regard to , The effect of the firing costs on wage is instead ambiguous: on one hand, the firm takes into account that it has to pay the firing cost when separation occurs. On the other hand, firing costs reduce the probability to be fired, giving the worker a higher bargaining power.

2 The Firing Costs Function

Our focus is on the political support of employment protection. Since there is only one type of worker, aggregation is trivial: assuming that the number of employed workers is higher than unemployed ones, the level of employment protection implemented by the political system is the level of firing costs chosen by the employed worker.

The objective of the employed worker is to maximize the profile of her intertemporal consumption with respect to F, that is to maximize V_E.

Subtracting equation (2) from equation (1) in order to obtain $V_E - V_U$ and substituting into equations (1), we get:

$$V_E = \frac{1}{r}\left[\left(1-\alpha\left(\theta,F\right)\right)w\left(\theta,F\right) + \alpha\left(\theta,F\right)b\right] \tag{7}$$

where $\alpha\left(\theta,F\right) = \frac{s(F)}{r+\phi(F)\theta m(\theta)+s(F)}$ is the proportion of time that a worker will spend unemployed during their lifetime when is currently employed.

Maximizing the expression (7) with respect to F, we get the following first order conditions (for a given value of θ):

$$\left[1-\alpha\left(\theta,F\right)\right]w_F\left(\theta,F\right) = \alpha_F\left(\theta,F\right)\left[w\left(\theta,F\right) - b\right] \tag{8}$$

where $w_F\left(\theta,F\right)$ and $\alpha_F\left(\theta,F\right)$ denotes the derivative with respect to F of the wage equation and of the unemployment spell, respectively. Condition (8) expresses the equality between the marginal variation of the wage times the duration of the employment status during the lifetime and the marginal variation of the unemployment duration times the gain obtained in terms of wage. Looking at Condition (8), since $\left[1-\alpha\left(\theta,F\right)\right] > 0$ and $\left[w\left(\theta,F\right) - b\right] >$

0, $w_F(\theta,F)$ and $\alpha_F(\theta,F)$ must have the same sign. If $w_F(\theta,F) > 0$ (< 0) and $\alpha_F(\theta,F) > 0$ (< 0), the employed worker compares the marginal gain (loss) deriving from a higher (lower) wage with the marginal loss (gain) deriving from a higher (lower) duration of unemployment. If $w_F(\theta,F) > \alpha_F(\theta,F)$, the marginal gain increases proportionally more (less) than the marginal loss, hence the worker will chooses a higher (lower) level of firing costs.

Making use of the expression of the first derivative of $\alpha(\theta,F)$ with respect to F, we can rewrite (8) in the following manner:

$$\frac{\phi'(F)\gamma(\theta)s(F) - s'(F)\left[r+\phi(F)\gamma(\theta)\right]}{r+\phi(F)\gamma(\theta)+s(F)}\left[w(\theta,F)-b\right] + \left[r+\phi(F)\gamma(\theta)\right]w_F(\theta,F) = 0 \tag{9}$$

Equation (9) implicitly determines the optimal value of the firing costs F^* chosen by the employed worker for any given value of the labor market tightness θ.

Considering that $w_F(\theta,F) = -\left[s'(F)F + s(F)\right]$ and defining the elasticity of $s(F)$ with respect to F as $\epsilon(F) = -\frac{s'(F)F}{s(F)}$, we can rewrite the first order condition in this useful manner:

$$\frac{\phi'(F)\gamma(\theta) - \frac{\epsilon(F)}{F}\left[r+\phi(F)\gamma(\theta)\right]}{r+\phi(F)\gamma(\theta)+s(F)}\left[w(\theta,F)-b\right] + \left[r+\phi(F)\gamma(\theta)\right]\left[\epsilon(F)-1\right] = 0 \tag{10}$$

In order to evaluate the effects of labor market tightness on the optimal value of F, we totally differentiate equations (9) with respect to F and θ. Mathematical paraphernalia are quite complex, so it could be better to consider separately the two derivatives. With regard to F, we get:

$$\frac{dF}{d\theta} = -\frac{\partial V_E^2/\partial F\partial\theta}{\partial V_E^2/\partial F^2} = \tag{11}$$

$$= -\frac{-\alpha_\theta(\theta,F)w_F(\theta,F) - \alpha_F(\theta,F)w_\theta(\theta,F) - \alpha_{F\theta}\left[w(\theta,F)-b\right]}{w_{FF}(\theta,F)\left[1-\alpha(\theta,F)\right] - \alpha_{FF}(\theta,F)\left[w(\theta,F)-b\right] - 2\alpha_F(\theta,F)w_F(\theta,F)} \tag{12}$$

where $\alpha_i(\theta,F)$ and $w_i(\theta,F)$ are the first derivative with respect to i of the unemployment duration and the wage equation respectively. Analogously, $\alpha_{ij}(\theta,F)$ and $w_{ij}(\theta,F)$ are the second derivative of duration and wage with respect to the variables i and j. The denominator fo equation (11) represents the second derivative of V_E with respect to F, that is $\frac{\partial V_E^2}{\partial^2 F}$. It is negative since the worker is maximizing her lifetime utility, which implies that V_E must be concave in F. Hence, the sign of $\frac{dF}{d\theta}$ depends on the sign of the numerator of equation (11), that is on the derivative of the first order condition (9) with respect to θ. Given the expression for $\alpha_i(\theta, F)$, $w_i(\theta, F)$, $\alpha_{ij}(\theta, F)$ and $w_{ij}(\theta, F)$ (formally derived in the Appendix), we get:

$$\begin{aligned}\frac{\partial V_E^2}{\partial F \partial \theta} = & \frac{s(F)\gamma'(\theta)\{\phi'(F)[r+s(F)] - s'(F)\phi(F)\}}{[r+\phi(F)\gamma(\theta)+s(F)]^2}[w(\theta,F)-b] \\ & + \frac{\phi'(F)\gamma(\theta)s(F) - s'(F)[r+\phi(F)\gamma(\theta)]}{r+\phi(F)\gamma(\theta)+s(F)} w_\theta(\theta,F) \\ & + \phi(F)\gamma'(\theta) w_F(\theta,F)\end{aligned} \tag{13}$$

Studying the sign of expression (13) is quite complex. In fact, the sign of the first term is ambiguous, since $\phi'(F)$ and $s'(F)$ are both negative. As for the second term, the first order condition (9) allows to verify that it is negative. The last term is positive, under the assumption that $w_F(\theta, F) > 0$. Hence, at a first look, the sign of condition (13) seems to be ambiguous.

Which is the source of this ambiguity? To see this, remembering that from the first order condition $w_F(\theta, F) = -\frac{\phi'(F)\gamma(\theta)s(F) - s'(F)[r+\phi(F)\gamma(\theta)]}{[r+\phi(F)\gamma(\theta)][r+\phi(F)\gamma(\theta)+s(F)]}[w(\theta, F) - b]$, we can rewrite expression (13) as follows:

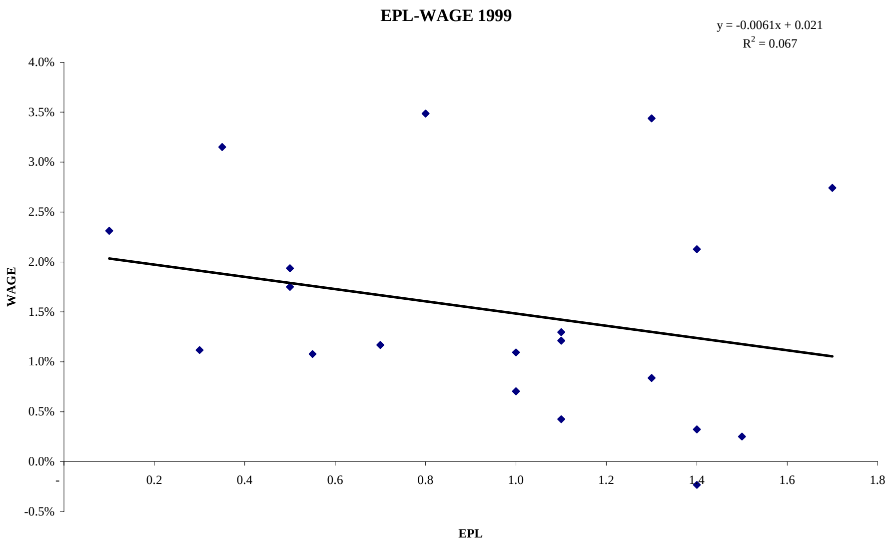
$$\begin{aligned}\frac{\partial V_E^2}{\partial F \partial \theta} = & \frac{\phi'(F)\gamma(\theta)s(F) - s'(F)[r+\phi(F)\gamma(\theta)]}{r+\phi(F)\gamma(\theta)+s(F)} w_\theta(\theta,F) \\ & + \frac{\phi'(F)s(F)\gamma'(\theta)[r-\phi(F)\gamma(\theta)]}{[r+\phi(F)\gamma(\theta)+s(F)]^2}[w(\theta,F)-b] \\ & + \frac{[r+\phi(F)\gamma(\theta)]\phi(F)\gamma'(\theta)s'(F)}{[r+\phi(F)\gamma(\theta)+s(F)]^2}[w(\theta,F)-b] \\ & + \frac{rs(F)^2\phi'(F)\gamma'(\theta)}{[r+\phi(F)\gamma(\theta)][r+\phi(F)\gamma(\theta)+s(F)]^2}[w(\theta,F)-b]\end{aligned} \tag{14}$$

which is unambiguously negative if $r \geq \phi(F)\gamma(\theta)$, that is if the discount rate is higher than the exit rate of unemployment.

Looking at the first order condition (10), when the elasticity of the separation rate with respect to F is equal to one, the two opposite effects of layoff costs on the bargaining wage perfectly compensate. Therefore, the employed worker takes into account only the unemployment duration during the lifetime, disregarding the potential gains or losses in term of wage.

In this case, it is easy to show that the relationship between firing costs and the labor market tightness is unambiguously negative. In fact, when $\epsilon(F) = 1$, we have only the first term in expression (13), which is negative. Assuming the simplest functional forms $\theta m(\theta) = \theta^\gamma$ (deriving from a CRS Cobb-Douglas matching function), $\phi(F) = a - dF$ and $s(F) = \frac{\lambda}{F}$ for the exit rate, the hiring rate and the separation rate, respectively, and substituting

FIGURE 1
Correlation between EPL and the percentage variation of Compensation per Employee (OECD souce)



them into the first order condition, the level of firing cost chosen by the worker is given by:

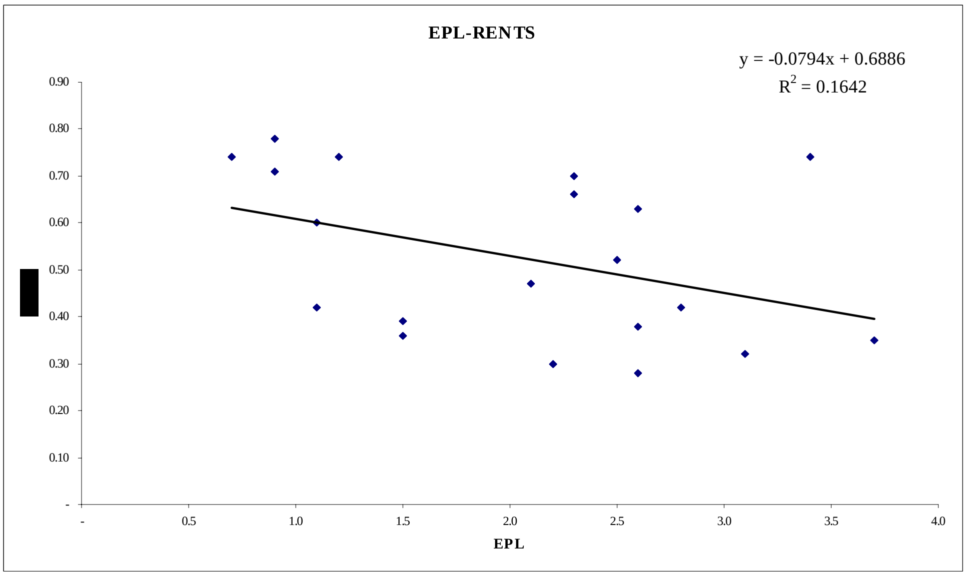
$$F = \frac{a}{2d} + \frac{r}{2d\theta^{\gamma}}$$

which provides a decreasing relationship between firing costs and the labor market tightness.

In what follows, we focus on the solution of the model with unit elasticity of $s(F)$ for two reasons. First, there is a large empirical evidence, cited in the Introduction, that suggest a decreasing relationship between firing costs and labor market conditions. Moreover, we are able to provide a first evidence regarding the correlation between the EPL index formulated by OECD and two measures that summarize the workers' bargaining power: compensation per employee and a measure of the rent in the supply side given by the difference between the wage and the alternative income.

As shown in figure (1) and (2), the relationship between EPL and the percentage variation of compensation per employee do not reveal any significant correlation, while with regard to the relationship between EPL and rents, the correlation is significant but with a very low coefficient.

FIGURE 2
Correlation between EPL and Workers' Rents in the Supply Side (OECD source)



3 Job Creation

Remembering the free entry and making use of equation (4), it is easy to derive the job creation condition:

$$w(\theta, F) = y - \frac{[r + s(F)]\, c}{\phi(F)\, m(\theta)} - s(F)\, F \tag{15}$$

which represents a pseudo-labor demand, where the wage that the firm is willing to pay is equal to productivity net of the actualized value of search costs and the firing cost times the probability that separation occurs. Looking at the effects of θ and F on the demand wage, it is easy to verify that:

$$\frac{\partial w}{\partial \theta} = -\frac{[r + s(F)]\, c\phi(F)\, m'(\theta)}{[\phi(F)\, m(\theta)]^2} < 0$$

and:

$$\frac{\partial w}{\partial F} = -\frac{s'(F)\, c\phi(F)\, m(\theta) - [r + s(F)]\, c\phi'(F)\, m(\theta)}{[\phi(F)\, m(\theta)]^2} - \left[s(F) + s'(F)\, F\right]$$

The effect of θ is standard: higher tightness reduces the probability for firms to fill a vacancy, so it will be willing to pay a higher wage. With regard of F, the effect is ambiguous, because, on one hand, the firm takes into account the firing cost in the profit maximization, while, on the other hand, higher firing costs reduce job destruction.

4 Equilibrium

Equilibrium is described by the wage equation, the job creation condition, the firing cost function and the Beveridge curve, that we report below for convenience:

$$w(\theta, F) = (1-\beta)\, b + \beta\, [y + c\theta - s(F)\, F] \tag{16}$$

$$w(\theta, F) = y - \frac{[r + s(F)]\, c}{\phi(F)\, m(\theta)} - s(F)\, F \tag{17}$$

$$\frac{\phi'(F)\, \gamma(\theta)\, s(F) - s'(F)\, [r + \phi(F)\, \gamma(\theta)]}{r + \phi(F)\, \gamma(\theta) + s(F)}\, [w(\theta, F) - b] = 0 \tag{18}$$

$$u = \frac{s(F)}{s(F) + \theta m(\theta)} \tag{19}$$

They jointly determined the equilibrium value of w, θ, F and u.

In order to make clear the characteristics of the equilibrium, it is helpful to equating equation (17) and (16), in order to obtain the following equilibrium condition:

$$(1-\beta)(y-b) - \beta c\theta - \left[\frac{\beta\phi(F)\, m(\theta) + [r + s(F)]}{\phi(F)\, m(\theta)}\right] c\theta - (1-\beta)\, s(F)\, F = 0 \tag{20}$$

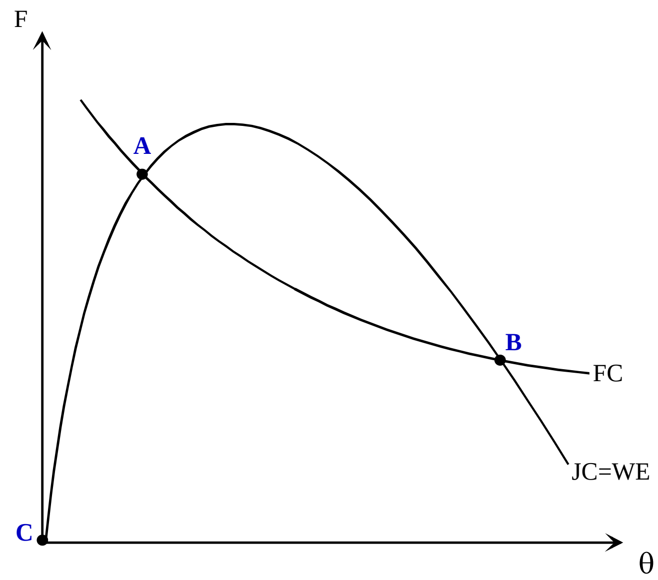
Totally differentiating equation (20) yields:

$$\frac{dF}{d\theta} = \frac{\phi(F)\, \{\beta\phi(F)\, m(\theta) + [r + s(F)]\, [1 + \eta(\theta)]\}}{\left\{[r + s(F)]\, \phi'(F) - s'(F)\, \phi(F)\right\} \theta} \tag{21}$$

Looking at condition (21), it is easy to note that the relationship between F and θ depends on the interactions between the effect on hiring (captured by $\phi'(F)$) and the effect on separation (captured by $s'(F)$). By the assumption we made on $\phi(F)$ and $s(F)$ it is possible to state that for low level of F the marginal effect on hiring dominates the one on firing. As F keeps increase the effect on layoffs becomes relevant and it more than counterbalances the one on hirings. This means that the relationship between F and θ will be first increasing and than decreasing, which implies the possibility of multiple equilibria, as shown in figure 3.

Looking at figure 3, equilibrium A is characterized by a high level of firing costs and low market tightness, while equilibrium B features low level of firing costs and high tightness. We can interpret the two equilibria as

FIGURE 3
The Possibility of Multiple Equilibria



reflecting two different characteristics of the labor market. The endogeneity of firing costs implies that when labor market is thin (the labor market tightness is low), the average duration of a filled job $\frac{1}{s(F)}$ is high (because firing costs are high), but is also high the average duration of unemployment $\frac{1}{\theta m(\theta)}$. When instead labor market is thick (the labor market tightness is high), the worker has low duration of a filled job (because firing costs are low) but also a high probability to find a new job when unemployed.

Given the two equilibrium values of F and θ, we can derive the equilibrium wage from (16) and the equilibrium unemployment from (19). It is important to note that since firing costs affects the unemployment rate in opposite directions, the two equilibria could produce similar unemployment rate in the model.

5 Concluding Remarks

Institutions change and evolve over time and space. In this paper, we account for this evolution providing a theoretical microfoundation of the decreasing relationship between EPL and the tightness of the labor market. This result allows us to study the macroeconomic implications on equilibrium unemployment.

Endogenous firing costs are able to characterized different structure of the labor market, that are not comparable by the Pareto criteria. A labor market with low flows and large duration of unemployment can be, *a priori*, as efficient as a labor market exhibiting high flow and short duration.

There are two main issues for which our analysis is useful and can be extended. The first involves the role of the institutional actors that determine the evolution of institutions. If the job is done by the judges, we should investigate if their behavior can drive towards higher or lower level of efficiency. We think this is essentially an empirical question. The second issue concerns the implications of the reverse causality nexus between EPL and labor market conditions. If the latter affects the former, what determines labor market conditions? We think the answer should be found in the analysis of the interactions between the labor market and the other markets, mainly the goods market. Perhaps, the low level of growth and aggregate demand can help to square the circle.

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