

Employment Protection: Tough to Scrap or Tough to Get?

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Abstract

Differences in employment protection across countries appear to be quite persistent over time. One view of this persistence is that high employment protection creates a mass of workers in favor of maintaining high protection because deregulation would mean that they would lose their jobs. According to this view, employment protection is a policy that is difficult to deregulate. In this paper I will examine a different view of the aforementioned persistence, namely that employment protection is a policy which is difficult to *introduce*. If a country decides to adopt employment protection, it is reasonable to assume that firms have ample opportunity to adjust employment levels before protection actually comes into effect. In particular, firms would have an incentive to dismiss some workers today in order to avoid problems with high employment protection in the future. Anticipating this, workers whose situation is already precarious may not find it in their best interest to support the proposal in the first place. The main result of the paper is that delayed implementation may give rise to situations in which both low and high employment protection are stable political outcomes.

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Differences in employment protection across countries appear to be quite persistent over time. One view of this persistence is that high employment protection creates a mass of workers in favor of maintaining high protection because deregulation would mean that they would lose their jobs. This mechanism is referred to as the *constituency effect* by Saint-Paul (2000). According to this view, employment protection is a policy that is difficult to deregulate.

In this paper I will examine a different view of the aforementioned persistence, namely that employment protection is a policy which is difficult to *introduce*. Why may that be the case? Consider an economy that currently has no employment protection, with a proposal to introduce employment protection on the table. In case the proposal is adopted, it appears reasonable to assume that firms have ample opportunity to adjust employment levels before employment protection actually comes into effect. They would have an incentive to dismiss some workers today to avoid problems with high employment protection in the future. Anticipating this, workers whose situation is already precarious may not find it in their best interest to support the proposal in the first place.

Recent work on the political economy of employment protection by Saint-Paul (2000, 2002), Vindigni (2002) and Brügemann (2003) has examined the view that employment protection may exhibit a constituency effect, making it difficult to deregulate. While these papers employ dynamic models of job creation and destruction, political dynamics are very simplistic. A level of employment protection is inherited from the past. The economy has a once and for all opportunity to change the level of employment protection. This opportunity is not anticipated. In particular, firms think that the old level of employment protection will last forever and suddenly find themselves confronted with a different level of employment protection, without a chance to prepare for the change in regulation.

In this paper I maintain the somewhat unsatisfactory assumption of unanticipatedness, but I eliminate the common feature of previous work that firms have no chance to respond. Specifically, I assume that after the new level of employment protection is decided upon there is a short delay in implementation during which a firms have a last opportunity to make dismissal decisions subject to the old level of employment protection.

The main result is that delayed implementation can give rise to multiple stable political outcomes. In other words, a low level employment protection inherited from the past may be confirmed in the political decision, while some high level of employment protection would be confirmed as well.

The remainder of the paper is organized as follows. The model is described in section 1. In section 2 I solve for the economic equilibrium. Preferences for employment protection for both immediate and delayed implementation are described and compared in section 3. A numerical example in which delayed implementation gives rise to multiple stable political outcomes is presented in section 4. Section 5 concludes.

1 Model

At each point in time there is a continuum of workers of mass one. Workers leave the labor force at rate p and the mass of leaving workers is replaced by new entrants. There are many firms, and the production structure consists of many production units, each composed of one worker and one firm.

Preferences. All agents have linear utility with discount rate r : the utility of a consumption stream $C(t)$ is given by $\int_0^\infty e^{-rt}C(t)dt$.

Creation. A firm creating a new production unit must undertake a specific investment c . The model has “workers waiting at the gate”: there are no matching frictions, firms can hire workers instantaneously while workers have to wait. Unemployment arises due to the appropriation of specific quasi-rents by employed workers.

Production. The productivity of a new production unit is given by y_0 . It falls at rate g thereafter.

Destruction. Production units are destroyed exogenously if the worker leaves the labor force. In addition there is endogenous destruction. The worker is free to quit at any time.

The firm is bound by mandatory employment protection, which is modelled as wasteful firing cost F which the firm incurs when it dismisses the worker.

Wage Determination. At the time of creation the firm and the worker set a wage such that the surplus of the production unit is split with shares $(1 - \beta)$ and β , respectively. This wage is never renegotiated. This gives rise to privately inefficient separations. I assume that at the time of bargaining the firm can still walk away without having to pay the firing cost.¹ Privately inefficient separations are the reason why workers may like some degree of firing cost.

Politics. The economy inherits a level of firing cost F_0 from the past and at time $t = 0$ the economy is presumed to be in the steady state induced by this level of firing cost. At time $t = 0$ there is a once and for all opportunity to change the level of firing cost. The arrival of this opportunity is not anticipated. The new level of firing cost F is determined by majority voting among workers. After the vote but before the new level of firing cost takes effect, firms have a last opportunity to fire workers subject to the old level of firing cost F_0 .

2 Economic Equilibrium

In this section I will solve for the equilibrium path of the economy after time $t = 0$, that is given the new level of firing cost F . The equilibrium obtained will also be used to calculate the steady state associated with the initial level of firing cost F_0 .

2.1 Separation Decision

The utility of unemployed workers U will be constant along the equilibrium path. Thus consider a production unit with current productivity y and current wage w operating given a constant utility of the unemployed. Let $\underline{y}(y, w, F, U)$ be the productivity level at which

¹The model is very similar to Blanchard and Portugal (2001), which features both “workers waiting at the gate” and no wage renegotiation. However, they assume that bargaining takes place at the instant after the firm has hired the workers, so firing cost are already part of the outside option of the firm.

separation occurs. If $w \leq rU$ the worker quits. If $y \leq w - rF$ then flow profits fall short of opportunity costs and the firm fires the worker. Thus

$$\underline{y}(y, w, F, U) = \begin{cases} \max[w - (r + p)F, 0], & w > (r + p)U, \\ y, & w \leq (r + p)U. \end{cases}$$

The part of the value of the production unit received by the firm is given by

$$J(y, w, F, U) = \begin{cases} J(y, w, F), & w > (r + p)U, \\ 0, & w \leq (r + p)U. \end{cases}$$

where

$$\begin{aligned} & J(y, w, F) \\ &= \frac{y}{r + p + g} - \frac{w}{r + p} - \left[\frac{\max[w - (r + p)F, 0]}{r + p + g} - \frac{w}{r + p} + F \right] \left(\frac{y}{\max[w - (r + p)F, 0]} \right)^{-\frac{r+p}{g}} \end{aligned}$$

The utility of the worker is given by

$$W(y, w, F, U) = U + \max \left\{ \left[\frac{w}{r + p} - U \right] \left[1 - \left(\frac{y}{\max[w - (r + p)F, 0]} \right)^{-\frac{r+p}{g}} \right], 0 \right\}.$$

2.2 General Equilibrium

In equilibrium it must be the case that $w > (r + p)U$, so the equilibrium wage can be determined from the equation $J(y_0, w, F) = c$. I assume that $J(y_0, w, F) - c = \frac{y_0}{r+p+g} - c > 0$. Then the left hand side is positive for $w = 0$, decreasing in w and equals $-F$ for $w = y_0 + (r + p)F$. Thus there is a unique solution $w(F) \in (0, y_0 + (r + p)F)$. In particular, for $F \geq \bar{F} \equiv \frac{y_0}{r+p+g} - c$ the solution is given by $w(F) = (r+p) \left(\frac{y_0}{r+p+g} - c \right)$. Implicit differentiation yields

$$w'(F) = - \frac{\left(\frac{\max[w - (r+p)F, 0]}{y} \right)^{\frac{r+p}{g}}}{\frac{1}{r+p} \left[1 - \left(\frac{\max[w - (r+p)F, 0]}{y} \right)^{\frac{r+p}{g}} \right]} \leq 0$$

with strict inequality if $F < \frac{y_0}{r+p+g} - c$. With some abuse of notation, let $\underline{y}(F)$ be the equilibrium separation productivity, that is

$$\underline{y}(F) \equiv \max[w(F) - (r + p)F, 0].$$

It is decreasing in F for two reasons: higher firing cost directly delay separation and in equilibrium they reduce the wage which also acts to delay separation. It is strictly decreasing for $F < \bar{F}$ and equals zero for higher levels of firing cost.

The surplus of a new production unit is given by $c + W(y_0, w(F), F, U) - U$. A fraction $(1 - \beta)$ of this surplus goes to the firm and must thus be equal to c . This yields the condition

$$W(y_0, w(F), F, U) - U = \frac{\beta}{(1 - \beta)}c.$$

Solving for the utility of the unemployed yields

$$U(F) = \frac{w(F)}{r + p} - \left[1 - \left(\frac{y(F)}{y_0} \right)^{\frac{r+p}{g}} \right]^{-1} \frac{\beta}{1 - \beta}c.$$

The hiring rate is obtained from the equation

$$(r + p)U(F) = h \frac{\beta}{1 - \beta}c$$

and thus given by

$$h(F) = \frac{1 - \beta}{\beta} \frac{(r + p)U(F)}{c}.$$

2.3 Steady State induced by F_0

Production units are destroyed endogenously when reaching the separation productivity $\underline{y}(F_0)$ and exogenously at rate p due to workers leaving the labor force. The overall destruction rate is

$$d(F_0) = \frac{p}{1 - \left(\frac{\underline{y}(F_0)}{y_0} \right)^{\frac{p}{g}}}.$$

Steady state employment is

$$L(F_0) = \frac{h(F_0)}{h(F_0) + d(F_0)}.$$

In the next section I will examine the preferences over employment protection of workers at different percentiles in the productivity distribution, so it will be useful to compute what these percentiles are. Let $y_\pi(F_0)$ be the π th percentile of the productivity distribution if initial firing

cost are F_0 . Unemployed workers will be included in the productivity distribution by assigning them a productivity level $u < 0$. Thus $y_\pi(F_0) = u$ for $\pi \leq 1 - L(F_0)$. For $\pi > 1 - L(F_0)$

$$y_\pi(F_0) = \left[1 - \frac{1 - \pi}{L(F_0)} \left(1 - \left(\frac{y(F_0)}{y_0} \right)^{\frac{p}{g}} \right) \right]^{\frac{g}{p}} y_0.$$

3 Preferences over Employment Protection

In this section I will determine the preferences of workers over the new level of firing cost set by majority voting at time $t = 0$. As a benchmark I will discuss preferences over employment protection if the new level of firing cost takes effect immediately. This is done in subsection 3.1. Then in subsection 3.2 I examine how preferences change when there is a short delay in implementation allowing firms a last dismissal decision subject to the old level of firing cost.

3.1 Immediate Implementation

If the new level of firing cost is implemented without delay, an employed worker need not worry that he will be dismissed if there is a large hike in firing cost. The worker only needs to worry about becoming unemployed if firing cost are lowered to a level insufficient to deter the firm from firing him.

Consider an initial level of firing cost $F_0 \leq \bar{F}$. The employed worker's current wage is given by $w(F_0)$. Since the worker is employed the productivity of the production unit must satisfy $y \geq \underline{y}(F_0) = w(F_0) - (r + p)F_0$. The separation productivity for workers receiving the wage w_0 under the new level of firing cost is given by

$$\underline{y}(F, F_0) \equiv \max[w(F_0) - (r + p)F, 0]$$

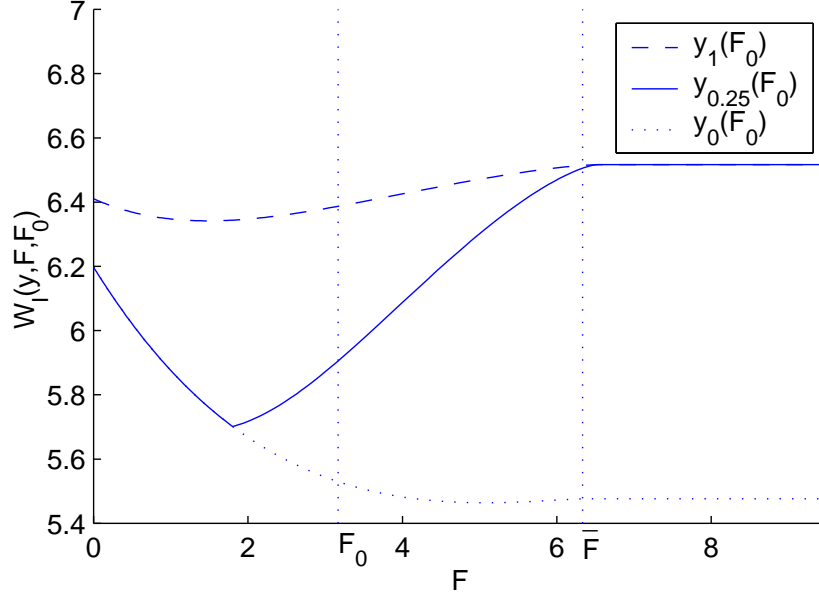
Thus a worker in a production unit with productivity $y \geq 0$ will be dismissed if and only if

$$y < \underline{F}(y, F_0)$$

where

$$\underline{F}(y, F_0) \equiv \frac{w(F_0) - y}{r + p} = F_0 - \frac{y - \underline{y}(F_0)}{r + p} \leq y.$$

Figure 1: Worker Utility, Immediate Implementation, $F_0 = \frac{1}{2}\bar{F}$



Clearly $\underline{F}(y, F_0) \leq F_0$ for $y \geq \underline{y}(F_0)$, that is currently employed workers only need to be worried about dismissal if firing cost are reduced. Having defined this threshold, the utility of an employed worker at time $t = 0$ can be written as

$$\begin{aligned}
 & W_I(y, F, F_0) \\
 & \equiv \begin{cases} U(F), & 0 \leq F < \underline{F}(y, F_0), \\ U(F) + \max \left\{ \left[\frac{w_0}{r+p} - U(F) \right] \left[1 - \left(\frac{y}{\underline{y}(F, F_0)} \right)^{-\frac{r+p}{g}} \right], 0 \right\}, & F \geq \underline{F}(y, F_0). \end{cases} \quad (1)
 \end{aligned}$$

For unemployed workers simply set $W_I(u, F, F_0) = U(F)$.

Figure 1 provides an illustration of the shape of preferences in this case for an intermediate level of initial firing cost $F_0 = \frac{1}{2}\bar{F}$.² The dashed line shows the utility of a worker in a production unit with maximal productivity y_0 . This worker need not fear dismissal even if firing cost are reduced to zero. The dotted line shows the utility of an unemployed worker. More interesting is the utility of a worker in a production unit with productivity at the 25th percentile, given by the solid line. If the new level of firing cost is sufficiently below F_0 , then

²The parameters are $r = 0.04$, $p = 0.03$, $g = 0.05$, $y_0 = 1$, $c = 2$ and $\beta = 0.3$ and will later be used to provide an example of multiple stationary equilibria.

this worker will be dismissed and his utility coincides with that of unemployed workers.

3.2 Implementation Delay

Now firms are given a last chance to dismiss subject to the old level of firing cost before the new level is implemented. As a consequence, employed workers not only need to worry about being dismissed when firing cost are reduced too much, in addition they must be concerned with becoming unemployed if there is a large hike in firing cost.

Consider an initial level of firing cost $F_0 \leq \bar{F}$ and a worker employed in a production unit with productivity y . The goal is to derive the threshold $\bar{F}(y, F_0)$ beyond which the firm will seize its last chance to dismiss at the old level of firing cost. The value obtained from not dismissing the worker is given by $J(y, w_0, F)$, thus dismissal is optimal if

$$J(y, w_0, F) < -F_0.$$

As the worker is employed, productivity y satisfies $y \geq \underline{y}(F_0)$ and

$$J(y, w_0, F_0) \geq -F_0,$$

i.e. the worker will not be dismissed at the old level of firing cost F_0 . Now consider $J(y, w_0, F)$ as the new level of firing cost F increases. The value of retaining the worker falls until firing cost reach $\bar{F}(F_0) = \frac{w(F_0)}{r}$, at which point firing cost are sufficiently large such that it is no longer optimal to dismiss a worker earning $w(F_0)$ even if productivity is zero. If Notice that since $\bar{F} = \frac{w(\bar{F})}{r+p}$ and $w(F)$ is decreasing it follows that $\bar{F}_0 \geq \bar{F} \geq F_0$. If

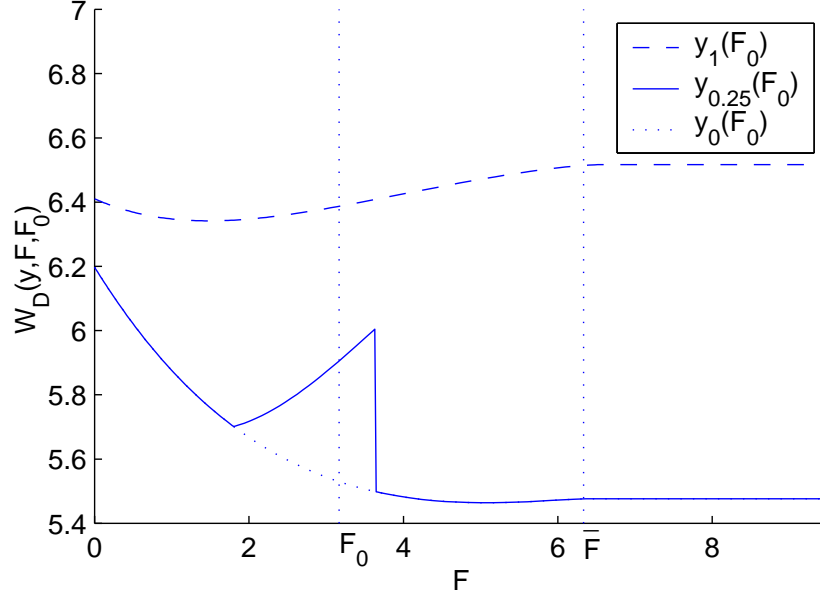
$$J(y, w_0, \bar{F}(F_0)) = \frac{y}{r+p+g} - \frac{w(F_0)}{r+p} < -F_0 \quad (2)$$

then there is a unique $\bar{F}(y, F_0) \in [F_0, \bar{F}(F_0)]$ such that

$$J(y, w_0, \bar{F}(y, F_0)) = -F_0.$$

If condition (2) set $\bar{F}(y, F_0) = +\infty$. For $F > \bar{F}(y, F_0)$ the firm will seize the opportunity and fire the worker before the new level of firing cost becomes effective.

Figure 2: Worker Utility, Implementation Delay, $F_0 = \frac{1}{2}\bar{F}$



Having constructed this additional threshold, the utility of an employed worker at time $t = 0$ can be written as

$$\begin{aligned}
 & W_D(y, F, F_0) \\
 &= \begin{cases} U(F), & F \leq \underline{F}(y, F_0), \\ U(F) + \max \left\{ \left[\frac{w_0}{r+p} - U(F) \right] \left[1 - \left(\frac{y}{\underline{y}(F, F_0)} \right)^{-\frac{r+p}{g}} \right], 0 \right\}, & \underline{F}(y, F_0) \leq F \leq \bar{F}(y, F_0), \\ U(F), & F > \bar{F}(y, F_0). \end{cases}
 \end{aligned} \tag{3}$$

where $\underline{y}(F, F_0) \equiv \max[w(F_0) - (r+p)F]$ is the separation productivity for a worker receiving a wage w_0 when the firing cost is F . For unemployed workers simply set $W_D(u, F, F_0) = U(F)$.

Figure 2 is the analog of Figure 1. A worker in a production unit with maximal productivity y_0 will retain his job no matter how large the hike in firing cost. This is not the case for a worker in a production unit at the 25th percentile. If the new level of firing cost is sufficiently large the firm will dismiss the worker and the worker's utility coincides with that of the unemployed. Notice that utility is continuous at the lower threshold $\underline{F}(y, F_0)$. Being slightly to the right of this threshold means remaining employed at the wage w_0 for a very short time,

which is not much better than being unemployed. On the other hand, utility is discontinuous at the upper threshold $\bar{F}(y, F_0)$. A worker slightly to the left of this threshold barely escapes dismissal at time $t = 0$, but taking this hurdle means benefiting from the new higher level of firing cost, which is much better than being unemployed.

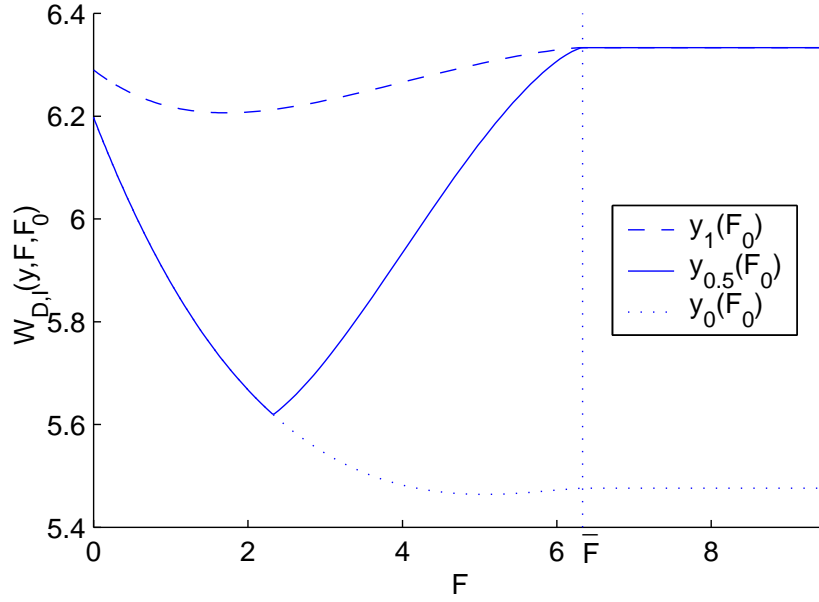
4 An Example of Multiple Stationary Equilibria

A level of firing cost F is a political equilibrium given initial firing cost F_0 if it is a Condorcet winner. Let $\mathcal{C}(F_0)$ be the set of Condorcet winners for initial firing cost F_0 . If two Condorcet winners give the same level of utility to all workers, only the lower one will be included in the set $\mathcal{C}(F_0)$, in order to eliminate meaningless multiplicity. A level of firing cost F_0 is a stationary political equilibrium if $F_0 \in \mathcal{C}(F_0)$. The set of Condorcet winners with immediate implementation is denoted as $\mathcal{C}_I(F_0)$ while the corresponding set with delayed implementation is denoted as $\mathcal{C}_D(F_0)$.

The purpose of this section is to present a numerical example in which $\mathcal{C}_I(F) = \mathcal{C}_I(\bar{F}) = \bar{F}$ for all $F \geq 0$ while $\mathcal{C}_D(0) = \{0\}$ and $\mathcal{C}_D(\bar{F}) = \{\bar{F}\}$. Under immediate implementation \bar{F} is the unique stationary equilibrium. Delayed implementation gives rise to multiplicity: \bar{F} is still a stationary equilibrium, but in addition zero firing cost turns out to be second stationary equilibrium. That is, \bar{F} is the unique stationary equilibrium under immediate implementation and delayed implementation gives rise to multiple stationary equilibrium: given zero initial firing cost, zero firing cost are the unique political equilibrium. The parameters used in the example are $r = 0.04$, $p = 0.03$, $g = 0.05$, $y_0 = 1$ (this is a normalization), $c = 2$ and $\beta = 0.3$.

In Figure 3 I consider the case of initial firing cost $F_0 = \bar{F}$. The wage of employed workers is $w(\bar{F}) = (r+p)\bar{F}$, so condition (2) is violated for all productivity levels $y \geq 0$. It follows that $\bar{F}(y, \bar{F}) = +\infty$ for all $y \geq 0$: increasing firing cost beyond \bar{F} cannot induce firms to dismiss workers. Thus the distinction between immediate and delayed implementation is immaterial here, that is $W_D(y, F, \bar{F}) = W_I(y, F, \bar{F})$ for all $y \geq 0$ and $F \geq 0$. The solid line in Figure 2 shows the utility of a worker with median productivity. For low levels of F the firm chooses to dismiss the worker after the reduction in firing cost has taken effect, so the worker receives the

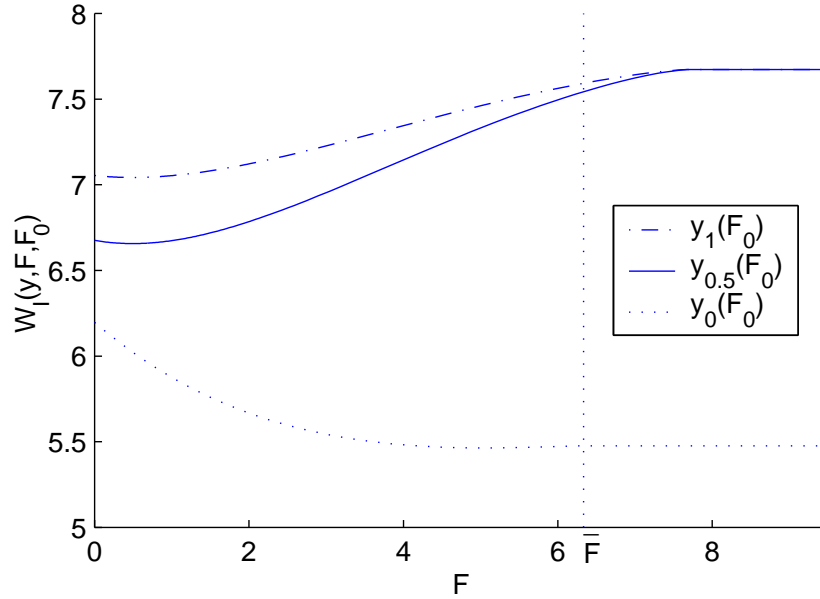
Figure 3: Worker Utility if $F_0 = \bar{F}$



utility of being unemployed. Once firing cost reach $\underline{F}(y, \bar{F})$, the worker retains his job. Utility is increasing in F . This reflects the trade-off between longer job duration and lower utility when becoming unemployed (actually close to \bar{F} the utility of the unemployed also becomes increasing in F). To the right of \bar{F} the worker is never dismissed and receives the wage $w(\bar{F})$ until leaving the labor force, so utility is $\frac{w(\bar{F})}{r+p} = \bar{F} = \frac{y_0}{r+p+g} - c$. The median worker's preferred level of firing cost is \bar{F} . The dashed line shows utility of a worker with productivity y_0 . This worker is not at risk of becoming unemployed if firing cost are very low. His preferred level of firing cost is also \bar{F} . It is then clear that \bar{F} is the maximizer for all employed workers. Since the median worker is employed, it follows that \bar{F} is the unique Condorcet winner. Notice that parameters are such that it is always better to be employed with full protection against dismissal than to be unemployed (no matter for what level of firing cost one is unemployed). It is easy to check that this condition is necessary and sufficient for \bar{F} to be a stationary equilibrium.³ In Figures 4 and 5 I consider the case of initial firing cost $F_0 = 0$. Since firing

³From (3) it is clear that utility is either $U(F)$ or a linear combination of $U(F)$ and $\frac{w_0}{r+\rho}$. If $\frac{w_0}{r+\rho} > \max_{F \in [0, \bar{F}]} U(F)$, then all employed workers prefer \bar{F} which guarantees utility $\frac{w_0}{r+\rho}$. Conversely, if $\frac{w_0}{r+\rho} \leq \max_{F \in [0, \bar{F}]} U(F)$, then all workers (including the unemployed) vote for the maximizer of $U(F)$.

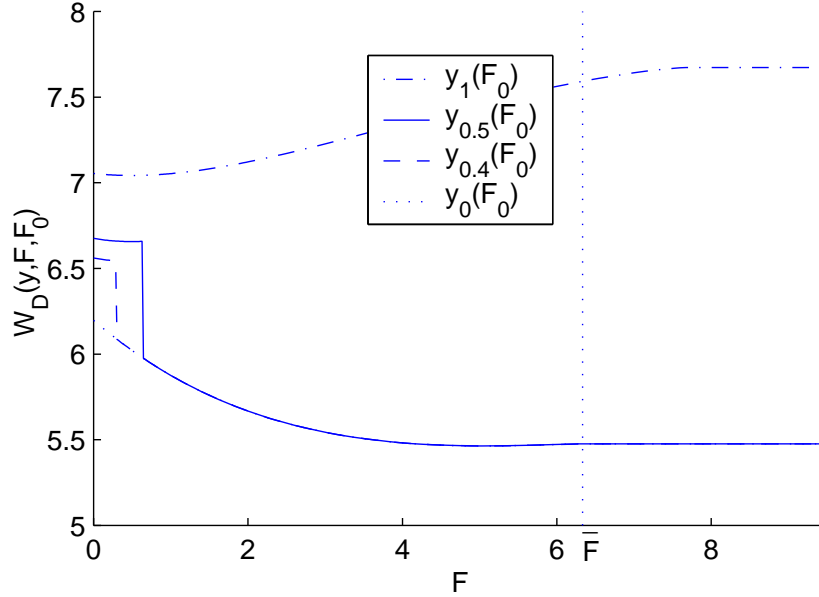
Figure 4: Worker Utility, Immediate Implementation, $F_0 = 0$



cost are already zero, it is not possible for a further reduction in firing cost to induce job loss, hence $\underline{F}(y, 0) = 0$ for all $y \geq \underline{y}(0)$. Figure 4 shows that under immediate implementation \bar{F} is still the unique Condorcet Winner.

However, if implementation is delayed, then an increase in firing cost may induce firms to seize their last opportunity to dismiss their workers without having to pay a firing cost. The solid line in Figure 4 plots the utility of a worker with median productivity $y_{0.5}(0)$ as a function of the new firing cost F . If the new level of firing cost is small this worker remains employed. Over this range an increase in firing cost extends prolongs the worker's current job but reduces the utility received by the worker upon being dismissed. The balance of these two effects turns out to be negative. As the new level of firing cost increases, it eventually reaches the threshold $\bar{F}(y_{0.5}(0), 0)$ at which it becomes optimal for the firm to dismiss the worker. Beyond this threshold the worker simply receives the utility of the unemployed. For this worker $F = 0$ is the preferred new level of firing cost. To indicate how preferences look for workers with productivity below the median, the dashed line shows utility for the worker with productivity $y_{0.4}(0)$. Since the production unit is less profitable, the threshold $\bar{F}(y_{0.4}(0), 0)$ at which the firm prefers to dismiss the worker is lower than the corresponding threshold for

Figure 5: Worker Utility, Implementation Delay, $F_0 = 0$



the median worker. Again $F = 0$ is the preferred level of new firing cost. The dotted line shows the utility of unemployed workers. For all workers with productivity below the median $F = 0$ is the unique global maximizer, which implies that it is the unique Condorcet winner. Finally, the dash-dotted line shows the utility of a worker in a production unit with maximal productivity. This unit is sufficiently profitable such that the firm wants to keep the worker no matter how high the new level of firing cost. Also, because separation is more remote, the tradeoff between job prolongation and lower utility upon dismissal is more favorable for this worker and quickly turns positive. The maximizer for this worker is $F = \bar{F}$.

5 Conclusion

The political dynamics employed in recent research on the political economy of employment protection is somewhat unsatisfactory. In particular, the opportunity to change the extent of employment protection arises unanticipatedly and firms suddenly find themselves confronted with a new level of regulation. It would be desirable to abandon the device of unanticipatedness. Models doing so will probably allow firms to prepare for changes in regulation in

some way or another. Moreover, it seems a priori plausible that firms have some ability to do so in practice. In this paper I took a preliminary step, maintaining unanticipatedness but giving firms a chance to make a last round of dismissal decisions before the new level of regulation is implemented. I demonstrated that delayed implementation may give rise to a situation in which both high and low employment protection are stable political outcomes. In the low protection equilibrium, employment protection is never introduced because workers are concerned that firms will respond with dismissal before protection actually takes effect. In this sense employment protection is a policy that is tough to introduce. It would be interesting to extend this analysis to see under what circumstances one would expect employment protection to be introduced (e.g. in good or bad times), and to see whether predictions from such an analysis are in line with the actual experience of countries introducing employment protection.

References

- Blanchard, Olivier, and Pedro Portugal. 2001. "What Hides Behind an Unemployment Rate: Comparing Portuguese and U S Labor Markets." *American Economic Review* 91 (1): 187–207.
- Brügemann, Björn. 2003. "Does Employment Protection Create Its Own Political Support? The Role of Wage Determination." Mimeo, MIT.
- Saint-Paul, Gilles. 2000. *The political economy of labour market institutions*. Oxford and New York: Oxford University Press 355.
- . 2002. "The Political Economy of Employment Protection." *Journal of Political Economy* 110 (3): 672–704.
- Vindigni, Andrea. 2002. "Uncertainty and the Politics of Employment Protection." Working paper 465, Princeton University Industrial Relations Section.