

Designing Labor Market Institutions

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March 28, 2004

There is fairly wide agreement among economists on what constitutes optimal—or, at least, good—product market and financial market institutions. There is much less agreement on what constitutes optimal—or, at least, good—labor market institutions.

As a result, the public debate is too often dominated by clichés and slogans; “Get rid of labor market rigidities” is one of the most frequent ones. And the focus of policy makers is on politically feasible, incremental reforms, with little sense of the ultimate goal.

I believe economists could play a more useful role here. This is why Jean Tirole and I have decided to explore the optimal design of labor market institutions. This lecture is a progress report.¹ It gives a sense of the general architecture we see coming out of our analysis. As will be clear however, much remains to be done. It is probably best to start with three warnings:

Our research has focused so far on unemployment insurance and employment pro-

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1. An earlier report, with the same title as this lecture, was given in Blanchard [2003]; Blanchard and Tirole [2004] develop the theory behind the informal arguments presented below; Blanchard and Tirole [2003] apply the framework to the issue of the reform of employment protection in France.

tection. We see these as the two pillars of the architecture of labor market institutions. There are however many other relevant dimensions, from the respective roles of minimum wages and negative income taxes, to the respective roles of labor laws and collective bargaining, and so on. We have not analysed them, and therefore I shall not talk about those other dimensions today.

One size does not fit all. The economic principles we derive are quite general. But the specifics are likely to differ across countries, according to the level of income and the institutional development of the country. What may be optimal for Sweden may not be optimal for Chile for example. I shall touch on this issue later in the lecture, but this largely remains to be explored.

Having a sense of the ultimate goal is only half of what is needed. The other is how to go from here to there, how to go from existing institutions to better ones. As governments have learned, labor market reforms face many political constraints. These constraints are very relevant, but I shall ignore them here. Characterizing the goal comes first, and it is the focus of this lecture.

1 A benchmark

It will help to start with a stark, simplistic, benchmark.

Think of an economy where workers are risk averse and firms are risk neutral. Firms hire workers and put them into jobs. All jobs look the same ex-ante, i.e. have the same probability distribution. Ex-post, productivity differs across jobs. If the productivity of a job is sufficiently low, the firm lays the worker off, and the worker becomes unemployed.

What will happen in this economy? The answer is straightforward:

Firms, which are risk neutral, will insure workers, who are risk averse. They will pay workers a constant wage, independent of their realized productivity. And if

they decide to lay some workers off, they will pay them unemployment benefits so as to fully insure them against unemployment.

The payment of unemployment benefits to the workers will make firms fully internalize the cost of unemployment for the workers they lay off. Thus, the decision as to whether or not to layoff a worker will be socially efficient.

Now think of a different way of achieving the same outcome.

Suppose that, instead of making payments directly to the workers they lay off, firms make these payments to an unemployment agency. Call these payments unemployment contributions, or layoff taxes; the terminology does not matter. And let the unemployment agency pay unemployment benefits to the laid-off workers.

This clearly leads to the same outcome as before. By construction, payments from firms to the agency are equal to the payments from the agency to the unemployed. Firms face the same costs as before, and so make the same decisions; workers receive the same payments, and so get the same utility.

Given this equivalence, why introduce such an agency? Why not let firms handle the payments themselves? There is, in fact, a good reason. We assumed implicitly above that firms could fully insure workers by paying unemployment benefits directly. In reality, individual firms cannot easily provide unemployment insurance to laid-off workers:

A one-time payment at the time of the layoff provides very poor insurance against unemployment. The reason is that the main source of uncertainty when becoming unemployed is how long one will remain unemployed. A one-time payment offers no insurance against uncertain duration.

Good unemployment insurance therefore requires payments of unemployment benefits over time, conditional on whether the worker is still unemployed and searching for another job. Individual firms are not equipped to do this. Whether a laid-off worker is still unemployed or has found another job is already difficult enough

for one firm to verify. Monitoring the unemployed worker's search effort goes far beyond what a firm can do.

Hence there is the need for an unemployment agency, to check on employment status, to monitor search activity, and to deliver the benefits to the unemployed. The agency need not be a state agency. The state however probably has to be involved, given that it already has much of the infrastructure needed to check, monitor, and distribute benefits.

If the agency pays unemployment benefits to the unemployed over time, how do we ensure that firms still make contributions to the agency equal to what is paid by the agency to the workers they have laid off? This can be achieved in one of two ways. It can be done *ex-ante*: At the time the layoff takes place, firms can pay the expected value of unemployment benefits that the agency will pay to the worker who is laid off. This expected value is likely to depend on the age, the skills, and the geographic location of the worker, and may be difficult to assess. This suggests doing it instead *ex-post*, while the worker is unemployed: Whenever the unemployment agency sends a benefit check to an unemployed worker, these benefits are charged to the firm that laid that worker off.

Taking stock

The purpose of this section was to convey a basic message. The architecture of labor market institutions must be built on two pillars, *unemployment insurance* and *employment protection*—in the form of layoff taxes: To the extent that workers receive unemployment benefits, it is essential, for efficiency purposes, that firms take this cost into account when deciding whether or not to layoff workers. This requires the use of layoff taxes, of employment protection.

This argument is, I hope, straightforward. But note how much at odds it is with the often heard position that the less employment protection the better. Absent layoff taxes, in our benchmark, firms would layoff more workers than is socially

efficient, in effect free-riding on the unemployment benefits paid by the unemployment agency.

This basic message is, I believe, general and important. The benchmark is too simple however, ruling out a number of relevant imperfections in the labor market. It is time to consider a number of these imperfections, and see how the basic message must be refined and modified.

2 Four complications

The benchmark made—at least—four implicit assumptions. The first was that the unemployed could be fully insured. The second was that firms could pay the layoff taxes. The third was that, because workers were risk averse, they were willing to accept lower wages in exchange for insurance, leading, in turn, firms to offer this insurance, either directly (through direct payments) or indirectly (through the unemployment agency). The fourth was that all firms and all workers were *ex-ante* the same. All four assumptions are too strong. Let me take each one in turn.

Limits to insurance

Even if it were feasible to fully insure the unemployed, it would not be desirable to do so. The reason is well understood: If unemployment implied no loss of utility, there would be no incentives for the unemployed to search for jobs.

The question is how such limits to insurance affect our earlier conclusions. A formal analysis yields the following conclusions:

First, laid off workers should receive the highest feasible level of unemployment insurance consistent with search incentives. (This sounds obvious, but it has practical implications for the design of unemployment insurance to which I shall return below.)

Second, layoff taxes paid by firms should now exceed the unemployment benefits paid to laid-off workers. In other words, employment protection should be higher than in the benchmark. Why? Given the utility loss in becoming unemployed, it is now optimal to distort the layoff decision of firms so as to decrease layoffs and so decrease the incidence of unemployment.

In short, if there are limits on unemployment insurance, it is then optimal to have higher employment protection. Let me make two remarks here.

This inverse relation between unemployment insurance and employment protection fits the facts surprisingly well. As Boeri et al [2003] have documented, there is a clear negative relation between the generosity of unemployment insurance and the strictness of employment protection across European countries. A likely explanation is a political economy story which parallels the optimality argument above: The less generous the unemployment insurance (for whatever reason), the stronger the political pressure to put in place restrictions on layoffs, the stronger the degree of employment protection.

High employment protection is a partial substitute for unemployment insurance. It is a very poor substitute however. It comes with strong distortions, and a potentially large efficiency loss. It impedes reallocation, decreasing output, perhaps even affecting growth. This has an important practical implication: Any reform of the unemployment insurance system that delivers better insurance while maintaining search incentives is not only useful on its own but also useful indirectly: It allows to decrease layoff taxes, and so to reduce distortions.

In this light, a number of recent reforms of unemployment insurance systems, which offer increased benefits in exchange for stronger penalties for unemployed workers who either do not search or do not accept job offers, are promising. They relax the limits on insurance, and offer the hope of being able to reduce employment protection to a more efficient level.

Limits to layoff taxes

The benchmark assumed that firms were risk neutral and able to pay the layoff taxes. This assumption is also too strong. Many small firms have a single owner, who is likely to be risk averse and unable to diversify his firm's risk. Even larger firms may be facing financial constraints. Layoffs, by their very nature, tend to take place when firms are not doing well. In these circumstances, the firm may be unable to pay the layoff taxes. And, even if the firm can pay, this may come at a high cost, forcing, for example, the firm to close other operations or preventing investment crucial to its future.

This has a number of implications.

Instead of forcing firms to pay layoff taxes at the time layoffs take place, the state can shift payments to times when the firm is in better financial shape. This is the principle behind the system in place in the U.S. While the details vary from state to state, the principle is the following: The unemployment agency keeps a running balance for each firm, with the benefits paid by the agency to workers laid-off by the firm on the debit side, and payments by the firm to the agency on the credit side. At regular intervals, the firm pays a proportion of the remaining balance. The lower this proportion, the longer the implied average time between the payments of benefits to the workers and the payment of contributions by the firm.

This may alleviate the problem, but is unlikely to eliminate it: Some firms may not be in a much better financial position when the tax comes due. It may therefore be optimal for the state to impose lower layoff taxes than in the benchmark, thus decreasing the burden on firms in difficulty. If financial constraints vary systematically across types of firms, then rather than decreasing the layoff tax rate for all firms, it is better to tailor the tax rate for different types of firms. If, for example, new and young firms are more financially constrained, it may be optimal to make them subject to a lower layoff tax rate, while leaving the rate higher for other firms.

In short, the presence of financial constraints may require a decrease in layoff taxes relative to the benchmark. Let me again end with two remarks.

First, the unemployment agency must still be financed. If layoff taxes are lower, this implies that the rest of the funds must be raised through higher payroll taxes. The overall architecture now has unemployment insurance on one side, layoff and payroll taxes on the other.

Second, the decrease in layoff taxes implies that firms will lay off too many workers relative to the benchmark. Given the presence of financial constraints, this is, however, the best that can be done.

Ex-post wage bargaining

The benchmark assumed that, because workers were risk averse, the provision of insurance by firms (directly, or indirectly, through the unemployment agency) would allow the firms to decrease wages and decrease expected labor costs. Indeed, in our benchmark, the state did not have to force firms to join the unemployment insurance and layoff-tax system. They would have done so voluntarily.

One may well question this assumption. This takes us to an old issue in labor economics: How wages are set. Ex-ante (before being hired) risk averse workers will be willing to accept lower wages in exchange for the provision of unemployment insurance. Ex-post (after being hired), they may want to renegotiate wages, and, by then, bargaining conditions are very different. If bargaining fails and the worker is laid off, he is now entitled to unemployment benefits. If bargaining fails, and the firm lays off the worker, the firm has to pay a layoff tax. Both factors clearly strengthen the hands of workers in bargaining, and so the wage may well go up, not down. (This effect is well captured by the assumption of Nash bargaining in modern flow-bargaining models, as presented for example in Pissarides [2000], but is clearly more general than this particular class of models.)

Hence, if wages are at least partly determined ex-post, the provision of unemployment insurance is likely to lead to higher, not lower, wages. And the same applies

to layoff taxes: The higher the layoff taxes, the more expensive for the firm to layoff, the weaker the firm is in bargaining, and the higher the wage.

What happens to the optimal architecture in this case? The precise characterization depends on the details of bargaining and the characterization of the rest of the economy, and Jean and I have so far only worked out simple cases. The following conclusions appear to hold quite generally:

The larger the relative importance of ex-post relative to ex-ante wage setting, and the stronger the bargaining power of workers, the larger the adverse effect of providing insurance on wages and in turn on labor costs. Thus, the lower is the optimal level of unemployment benefits.

The larger the relative importance of ex-post relative to ex-ante wage setting, and the stronger the bargaining power of workers, the lower the layoff taxes for a given level of unemployment benefits. The reason is again that higher layoff taxes weaken the hand of firms in bargaining, further increasing wages and expected labor costs. It is therefore better in this case to finance unemployment benefits only partly through layoff taxes, and to rely on payroll taxes for the rest.

Heterogeneity

The benchmark ignored ex-ante heterogeneity of firms and of workers. All jobs and all workers looked ex-ante the same. This is obviously not the case. For example, some firms operate in more volatile markets than others, and so are likely to have a higher layoff rate. Some workers, because of their characteristics, are more uncertain than others, and are more likely to be laid off. This again has implications for the design of tax rates.

Let me just focus on worker heterogeneity here (parallel arguments apply in the case of firm heterogeneity.) The higher the layoff taxes firms have to pay, the more reluctant they will be to hire workers who have a higher probability of having to be laid off than others. Depending on how wages are set, these high risk workers

may either have to accept lower wages in order to be hired, or may simply not be hired at all.

This again suggests decreasing layoff taxes below unemployment benefits, so as not to penalize as much these high risk workers. Again, to the extent that specific groups of workers present greater risk than others, it is better to treat them differently. For example, new entrants—workers without an employment history—may be subject to lower layoff taxes. More explicitly, firms that lay off new entrants may be subject to lower layoff taxes, giving them smaller incentives to discriminate against new entrants when hiring in the first place. Using the same logic, contracts may include a trial period during which either workers or firms can separate at no cost, allowing them to get a better assessment of the quality of the match before layoff taxes become applicable.

Taking stock

The benchmark suggested a simple architecture: Full unemployment insurance on one side, and employment protection on the other side, with layoff taxes equal to unemployment benefits.

Looking more closely suggests a number of amendments. Limits to insurance suggest increasing layoff taxes relative to the benchmark. Financial constraints suggest, instead, decreasing layoff taxes relative to the benchmark. Ex-post bargaining suggests decreasing both unemployment benefits and layoff taxes. Heterogeneity suggests treating different types of firms or different groups of workers differently, for example by applying lower layoff taxes to young firms, or to new entrants, or by introducing a trial period when neither unemployment benefits nor layoff taxes yet apply.

Note that all these amendments take the form of changes in the level of unemployment benefits, in the level and the composition of taxes. One issue I have not discussed is the role of judges in the process. This is however an important issue, as,

in most countries, employment protection has an important judicial component. Let me say a few words on how one might think about it:

While I have focused on layoffs, not all separations are layoffs; many are quits, triggered not by a change in the productivity of the job, but by the offer of another job to the worker, or by increased worker dissatisfaction with the current job.

To the extent that firms only pay layoff taxes in case of layoff, and workers only receive unemployment benefits in case of layoff, this opens the scope for games between firms and workers. Firms which want to layoff a worker may want to harass the worker into quitting, saving on the layoff tax. Workers who want to quit may misbehave so as to be laid off, thus getting unemployment benefits.

If layoff taxes are less than unemployment benefits, this opens the possibility of another set of games, this time between workers and firms on one side, and the state on the other. Workers and firms may collude and declare quits to be layoffs, getting a net subsidy from the state.

In all these cases, the incentives to misbehave depend on the generosity of benefits and the level of layoff taxes. It is clear that, in cases of disagreement between firms and workers, judges have to be involved. If however, a firm is willing to declare a separation a layoff and pay the layoff tax, there is no obvious reason for judges to be involved and either potentially overturn the decision of the firm or require additional payments. I insist on this last point because, in many countries, judges can and do second guess decisions of the firms to layoff, introducing substantial uncertainty and arbitrariness in the process; layoff taxes are a much better instrument to force firms to face the implications of their layoff decisions.

All these complications may lead some to reject the whole architecture, to give up on state-provided insurance, and thus not to have to confront the issues of financing. I shall return to the issue of self-insurance below, but I am quite sure this conclusion would be wrong. Optimal tax/insurance systems are, by their nature, complicated. This is no reason to reject them in totality, just as the complexity of

the tax system does not justify eliminating government spending. The goal must be to provide insurance at the smallest cost in terms of efficiency. The message from this and the previous section is that the basic architecture needed to do so is simple, combining unemployment insurance and employment protection. The details are complex and must be worked out carefully, but this should not obscure the basic architecture.

3 Two issues of relevance to Latin America

Let me take up two issues which appear particularly relevant in the context of labor market reforms in Latin America. The first is the role of severance payments. The second is the role of self-insurance by workers, and of mandatory unemployment accounts.

Severance payments

So far, I have described a system based on unemployment benefits combined with layoff (and possibly payroll) taxes. I have not mentioned severance payments—direct payments from firms to workers at the time of separation. This raises two questions. Can severance payments be an alternative to the system I have described? Can they play a role in addition to the system I have described?

Let me start by answering the first question: Severance payments are a very poor alternative to the system I have described.

I already gave the basic reason in the discussion of the benchmark. Severance payments provide very poor insurance against the main source of uncertainty associated with unemployment, i.e. uncertain unemployment duration. Some economists have argued that lump-sum payments such as severance payments provide strong incentives for the unemployed to search for an other job. Indeed they do, but this

comes at the cost of very poor insurance. Any need to provide search incentives is better accomplished by relying on a benefit schedule where unemployment benefits decrease with the duration of unemployment.

The analysis presented above provides other arguments against severance payments as unemployment insurance. As we have seen, financial market imperfections may make it optimal to have lower layoff taxes, while providing unemployment insurance to the workers. This is easily done in a system in which unemployment insurance is financed partially by layoff taxes, and partially by payroll taxes. This is impossible under severance payments, where, by construction, payments by firms are equal to the benefits paid by workers. Also, some firms may simply go bankrupt. Under severance payments, workers bear the bankruptcy risk, and may therefore get nothing. In the presence of unemployment insurance, the risk is taken on by the unemployment agency, and workers can still receive unemployment benefits.

Are there conditions under which severance payments should still be considered as an alternative to unemployment insurance plus layoff taxes? My tentative answer is yes, when a country is at an early stage of institutional development. Running an unemployment agency, from keeping track of the employment status of workers to monitoring search activity and distributing benefits, is a complex operation. In countries with limited institutional capacity, severance payments may be the best that can be done, despite the shortcomings.

It is clear however, that as a country develops, it should move from a system based on severance payments to a system based on unemployment benefits and layoff taxes. One of the political challenges in such a transition is likely to be how to decrease severance payments while introducing unemployment insurance—an issue relevant for Chile. If unemployment insurance is introduced and severance payments are not reduced roughly in proportion, the outcome may prove very inefficient.

This takes me to the second question. Is there any role for severance payments *in addition* to the system of unemployment insurance and layoff taxes? The answer

is probably yes.

One can think of two different costs involved in losing a job. The first is the cost of *being unemployed* for some time. This is the cost I have focused on up to now. This cost depends on how long one is unemployed. The second is the cost of *becoming unemployed*, the cost of losing the job even if another one was found right away. It is a psychic cost. Especially for workers with high seniority, this second cost appears to be sometimes substantial, involving the loss of a network of workplace friends, the loss of self-esteem, and so on.

Two characteristics of this psychic cost are relevant here. The first is that it can be assessed at the time of separation. This implies that, in contrast to the first cost, it can be largely compensated by a one-time payment, i.e. by severance payments at the time the layoff takes place. The second is that it is likely to be a function of seniority. The longer the worker has been working in the firm, the higher the psychic cost of losing a job. This suggests that the payment should be increasing, perhaps even convex, in seniority.

To summarize, severance payments are an inferior way of delivering unemployment insurance. But they may be justified as partial compensation for the loss associated with losing a long held job. This suggests a role for limited severance payments, increasing in seniority, in addition to unemployment insurance.

The role and the scope for self-insurance

Given the distortions associated with any realistic system of state provided unemployment benefits, one may ask whether it would not be better simply to rely on self-insurance by workers, and avoid all these problems. By “self-insurance,” I mean the accumulation of sufficient precautionary saving by workers so as to be able to draw from these funds if and when unemployed. Jean and I have just started working on this set of issues, and what follows is even more speculative than what came before. Let me nevertheless venture a number of remarks:

Self-insurance clearly alleviates some of the problems we have discussed so far. Think of an economy in which some insurance comes from self-insurance by workers, and some insurance is provided by the state. The larger the reliance on self-insurance, the smaller some of the moral hazard problems we discussed earlier: The more workers self insure, the stronger the incentives of unemployed workers to search for jobs. The larger the reliance on self-insurance, the smaller the difference between ex-ante and ex-post bargaining, and thus the smaller the increase in expected costs for firms.

Can self-insurance be sufficient on its own? Can it be a full substitute for state provided insurance? I believe the answer is clearly no. Compare saving for retirement and saving for unemployment. The time of retirement is roughly known in advance; it is a long way away when one starts his or her working life, and thus easy to plan for. In contrast, unemployment is uncertain; it often comes early in working life (indeed often at the very start), when workers have not accumulated substantial funds. In short, while one may well want to rely on individual retirement saving, the arguments do not carry over to individual unemployment saving. Without state-provided insurance, some of the unemployed are likely to have insufficient funds to maintain an adequate level of consumption.

This is why, in practice, existing individual unemployment account systems always include some additional state-provided insurance, allowing, for example, unemployed workers to borrow up to some ceiling either directly from the state or from financial institutions through a state guarantee. However, these additional provisions raise many of the same issues as those we discussed earlier. How much should the state provide or guarantee, and in what form? How do we make sure that firms internalize the cost of these guarantees to the state, and so take efficient layoff decisions?

I do not know the answer to these questions at this point (I hope I shall know more in the not too distant future.) Let me just state my guesses at this stage. The optimal architecture probably includes some self-insurance by workers. Self-insurance is surely not enough however. The basic architecture must still be organized around

state-provided unemployment insurance and layoff taxes.

4 Some conclusions

Let me end by stating a number of broader conclusions, probably with more conviction than is warranted.

Social protection and efficiency

I believe countries can provide high social protection to workers, without large sacrifices in efficiency. The main tools must be:

- The provision of unemployment insurance through an unemployment agency. Benefits can be generous, but must be conditional on active search and job-taking. (The idea of requiring the unemployed to take “acceptable jobs” or lose benefits is an appealing one, and one that underlies reforms in many European countries. In principle, its appeal is that it provides insurance contingent on the state of the labor market. If there are truly no jobs, the unemployed continue to receive benefits, as they should. If there are jobs and the unemployed do not take them, they lose benefits, as they should. In practice however, what constitutes an “acceptable job” has turned out to be difficult to define and to enforce.)
- Employment protection, in the form of layoff taxes rather than judicial intervention.
- The reliance on a negative income tax rather than on a minimum wage to insure that even low productivity workers have an adequate level of income. There still may be a role for the minimum wage to avoid the worst cases of exploitation by firms. But this should be a true minimum, rather than a “living wage”. If the productivity of the lowest productivity workers is less than is needed for them to survive, the difference must be made up by the state, not through the imposition of a minimum wage.

The sins of Europe

Relative to the characterization of good labor market institutions I have just given, many European countries committed three sins:

- Open-ended unemployment benefits or assistance, and, for some categories of workers, very high replacement rates (defined as ratios of after-tax benefits to after-tax wages), giving few incentives for some of the unemployed to look for work.
- Heavy judicial and administrative employment protection. In nearly all countries, unemployment benefits have been financed through payroll rather than layoff taxes. This, by itself, leads, as we have seen, to too many layoffs. Perhaps in reaction, judicial and administrative employment protection is often very high. In many countries, judges can for example second-guess and overturn the decision of a firm to layoff workers. This should not be the case.
- Too much reliance on the minimum wage rather than a negative income tax.

In most of these countries, reforms are taking place at all three margins. The highest replacement rates have been reduced. New labor contracts, subject to simpler and more limited employment protection, have been introduced (The existence of two types of contracts, some with limited protection, some with full protection, raises other issues, but this is a topic for another time. See for example Blanchard and Landier [2002]). Many countries have introduced some form of a negative income tax. But, there is some way to go.

Lessons from the unemployment miracles

Examining those countries where unemployment has either remained low (for example, Sweden, except for a sharp cyclical upturn in the early 1990s), or has dramatically declined after increasing in the 1970s and 1980s (for example, the Netherlands), I draw two main conclusions:

- These countries have achieved low unemployment without dramatic labor market reforms. They have eliminated excesses, but continue to offer high levels of social protection, even relative to the European average.
- Institutional reforms have probably played some role in the decrease in unemployment. A major factor however has been wage moderation, and this is not easily explained by changes in institutions. It seems mostly to reflect the attitudes of unions in collective bargaining. (I draw here, with apologies for yet another self reference, on Blanchard and Phillipon [2003]) In countries where collective bargaining is important, good labor relations, trust between unions and firms, and some form of wage coordination seem essential to maintaining low unemployment in the face of major adverse shocks.

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