Job Security and Labor Market Adjustment in Developing Countries

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Abstract

This paper analyzes the effects and characteristics of job security regulations in developing countries. It reviews the literature on the consequences of job security for macroeconomic adjustment, labor costs, and firm-level adjustments. It also presents a model which shows that the detrimental effects of job security on employment and wages may be profound, but that firms can be expected to provide a sufficient amount of job security in the absence of mandatory regulations. In this model, the extent to which job security is binding is related to the existence of other labor market regulations and distortions and to the degree of uncertainty in the economy. For instance, higher minimum wage and rigid nominal wages ensure a constraining mandatory job security policy. On the other hand, increasing the efficiency and effectiveness of social programs financed through payroll taxes, such as retirement and unemployment insurance, will reduce the restrictiveness of mandatory job security. The paper also discusses some avenues for future research. Developing countries are typically characterized by a volatile macroeconomic environment and labor market segmentation and the costs of job security which are specific to these countries deserve applied research. The main policy implication of the analysis is that the adverse effects of job security can be minimized by providing flexible wages and establishing competitive labor markets.
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In most developing countries job security laws have been enacted to protect workers against the risk of unemployment and to ensure that firms continue to provide jobs even during periods of economic downturn. The legal obligation to pay large severance compensation - the primary means of promoting job security - discourages firms from resorting to layoffs and helps raise the welfare of workers who become unemployed. Developing countries have also passed dismissal laws that require lengthy and expensive procedures, often involving the Ministry of Labor and the courts of law, to discourage layoffs by driving up their costs to employers.

In general, job security regulations can have both positive and negative effects. On the positive side, when employment stability is guaranteed by job security measures, the morale and productivity of workers should improve, according to efficiency wage theory. This argument is made by unions and the International Labor Organization. Also on the positive side, job security regulations may help avoid unnecessarily high rates of labor turnover, which often result from unfair labor practices or from the unpredictability of the economic cycle. The negative effects seem much more persuasive, however, especially if job security regulations force some firms into bankruptcy, or contribute to deeper recessions and higher inflation.

Many economists consider job security regulations to be a major obstacle standing in the way of making efficient and successful economic adjustment. The primary reason for this belief is that job security measures will reduce labor mobility as the labor markets respond to shifts or a drop in aggregate demand. Moreover, since job security regulations are enforceable only in the formal wage sector of the economy, adjustment becomes more inefficient because sluggish labor mobility may hinder the ability of adjustment policies to change the relative prices and wages between the formal and informal sectors. Adjustment may also become more inequitable because only the formal sector labor is protected by job security measures, forcing the unprotected informal and the rural-subsistence sectors to bear the larger burden of adjustment. Because it is difficult to change job security laws in the short run, particularly during periods of structural adjustment, policy makers must find alternative policies to avoid the potentially negative effects of job security requirements.
the different role government and unions play in the labor markets of those countries. Job security is even an integral aspect of different economic systems: socialist economies have provided complete and universal job security, while capitalistic economies have adopted a "hire and fire" system or, as in the words of Fenn and Whelan (1984), an "employment at will" mode.

Firms are most likely to withdraw job security in the presence of unfavorable economic conditions, which is the time when workers need job security the most. Structural adjustment programs require that the industrial sector be competitive and respond effectively to changing market conditions. If workers can be easily laid off during adjustment, however, and provisions for unemployment benefits do not exist, the structural reforms may not take place at all, as recurrent strikes and riots occur. Many developing countries have faced this paradox.

How can effective job security measures be provided? There are three different options. First, firms may simply keep unneeded workers on the payroll during a downturn, even though this practice may reduce short-term profits. Firms will adopt this job security measure in the face of the larger longer-term costs of hiring and training a new workforce and in order to maintain good labor relations and productivity. Second, firms may offer flexible hours or flexible compensation to guarantee employment for their workforce without sacrificing short term profits. Third, if the firms can employ temporary workers or subcontractors readily, they may be able to offer job security to a core of most valued employees without losing labor cost flexibility.

All three measures have been an integral part of Japanese industrial relations (Abraham and Houseman, 1989). Labor "hoarding" — encompassing the first two measures — is common in European nations, particularly those with socialist economies. The third option, subcontracting, has been increasingly prominent in developing countries, where labor surpluses and the dual segments of the labor market ensure its viability.
theoretical tradeoff between hours and employment does not in fact exist, since hours are determined by worker preference and not by the production technology. These results are contradicted by Yamamoto, however, (1982) who, using Japanese data, showed that, all else being equal, a significantly negative relationship exists between employment and hours worked. Yamamoto's finding may not be representative because it covers a relatively short time span and thus precludes drawing long-term implications (Hamermesh, 1986). In another study using U.S. data, Crawford (1979), using Yamamoto's approach but also accounting for the differences between permanent and transitory income changes, also found a significant trade-off between employment and hours worked.

The second view looks at how the structure of labor costs affects the speed of employment adjustment and the productivity of labor. In this view job security is seen as a fixed cost. Unlike the first approach, this approach considers the effect of job security on employment as indirect, in that greater job security increases the current cost of labor. In a study on labor costs in West Germany, Hart and Kawasaki (1986) divided total non-wage labor costs into their fixed and variable components. In their model, hours worked, the employment level, and the capital stock are determined and affected simultaneously by both fixed and variable non-wage labor costs. The researchers found that a reduction in non-wage costs increased the ratio of employment to hours worked only slightly.

Research by Hamermesh (1986) also suggests that policies which increase the fixed cost of employment may reduce the employment to hours ratio only slightly. But the effect may be greater than estimated because the estimates may reflect the prevailing job security regulations, which would have induced firms to substitute capital for labor, in effect making employment level less responsive to prices. In fact, Hamermesh previously had found that in the United States the lags in the response of hours worked to prices were substantially greater than the lags in the response of hours worked to changes in exogenous variables (Hamermesh, 1986).

Another finding by Hamermesh is that even if no substitution existed between employment and hours, the total amount of worker-hours employed would decline substantially in response to increases in the fixed cost of labor. This finding is also supported by Chang (1983), for the U.S. auto
Abraham and Houseman’s study examined this potential problem and provided evidence that it did not affect their conclusions.

The effect of job security on the speed of employment adjustment is less controversial than its effect on the employment level. The demand for labor falls when job security regulations are implemented or when existing regulations are made more restrictive (Lucas and Fallon, 1991; Hamermesh, 1986). In Great Britain, Nickel (1982) found that dismissal laws significantly reduced hiring, possibly due to increasing the cost of labor. Making job security regulations stricter increased the cost of hiring due to the expectation of higher severance costs in the future and to the cost of the foregone output due to skill mismatches.

Job security has a different effect on employment when changes in demand are temporary than when they are permanent. Firms have developed several mechanisms to deal with cyclical or seasonal variations in demand. But permanent changes in demand raise the issue of whether more job security is preferable to more jobs. A corollary is that job security legislation is inequitable, because it does not protect workers in the informal sector, who may be in the majority in developing countries. One of the most striking differences between the formal sector of the economy and the informal sector is the effective coverage of regulations to protect employees. In studies of segmented labor markets, an increase in job security regulations leads to a shift of labor from formal to informal activities, causing total labor earnings to decline and the rate of “quasi-voluntary” unemployment to rise (Riveros and Paredes, 1990).

Job security also affects labor productivity. Employers are concerned with unit labor costs, a variable that is related directly to productivity. Job security may create productivity losses, first, by keeping employers from being able to dismiss labor when there is excess employment. Second, a loss in productivity would occur to the extent that firms are prevented from modernizing or closing older facilities because they lack the freedom to dismiss labor (Houseman, 1987). Third, job security may introduce complacency and encourage shirking, since the probability of being fired no longer exists. Fourth, on-the-job-evaluations are commonly applied in the normal process of selecting more productive
structural adjustment, however. Rather they should be amended to focus more on providing unemployment benefits, retraining, and placement services. To a large extent, the recent experience in transitional socialist economies shows that a social safety net carries significant financial burdens, which may weigh down adjustment programs by forcing unnecessarily high job security where it serves no productive purpose.

C. How Job Security Regulations Affect the Behavior of Firms

Job security can be considered as a form of non-wage compensation that firms pay to workers. Beyond causing labor immobility, job security regulations also increase a firm's labor costs. Because job security, like most other fringes, does not depend on hours worked, firms find it desirable to increase employment at the margin by increasing hours of existing employees rather than adding to the number of employees. Thus, job security has different effects on labor costs than it does on employment as a whole.

In order to separate these different effects, we consider labor here only as labor services, that is, the total services derived from the number of workers multiplied by their average hours of work. Under this assumption, consider the main effect of job security on labor costs to be associated with severance costs and with the "period of notice for dismissal." Because employment decisions cannot be reversed without cost, they must be evaluated in light of the expected demand. In this sense, the employment decision is like an investment decision for a firm, where it is desirable to hire a worker only when the net present value of the hiring decision is positive.\(^7\)

Because job security regulations can increase the cost of labor, they reduce employment in two general ways: (1) by directly increasing the cost of hiring workers, and (2) by increasing the adjustment costs. Economic analysis shows that both firms and workers are willing to generate positive job security. When the government sets the job security regulations above a certain level, however, labor costs will increase. The amount of the increase depends on how much workers value job security, and particularly whether substitution exists between job security and wages. In general, it is not true that,
reasons as sufficient justification for dismissals or, if they do, government agencies must authorize the
dismissals. For instance, Venezuela, Peru, Guatemala, Bolivia and Honduras accept only "severe faults" as reasons for firings. Argentina and Mexico accept "economic reasons," but a court must first approve them. In Mexico, if an economic reason is approved, the severance compensation increases.

Legal prohibitions can increase the cost of worker dismissal considerably.⁶ For an idea of these costs, consider mandatory compensation of one month per year worked, as an example. If the compensation applies "at any event," that is, when the worker is either fired or quits, labor has a cost of 8.3 percent (one-twelfth the annual wage) in addition to the wage costs every year. If the compensation applies only when the worker is fired, calculations of the additional cost of labor must take into account the probability of workers being fired.⁷ The complexity of the cost estimation may increase when other factors are introduced. For example, when an established firm imposes a limit on severance compensation, the average cost of job security will be smaller than the 8.3 percent and the probability of workers being fired, but it will be proportionally larger than that for new and riskier firms, because workers are more likely to lose their jobs.

Similarly, when severance payments are calculated on the basis of the last wage received by the worker, any increase in nominal wages above the nominal interest rate will generate an additional job security cost. This situation is common in developing countries, where capital markets are regulated. The Industrial and Agricultural Bank of Egypt, for example, faces an important increase in the cost of firing workers due to the increase in wages decreed by the government. The main effect of this rule is that, when firms increase wages, they must consider not only their effect on the wage bill, but also the additional burden of job security, which depends directly on the wage paid. The reaction of firms to this regulation is to limit wage increases, a situation that distorts the entire wage structure.

The effects of job security on the labor costs of the firm depend on wages, tax rates, the existence of other regulations (in particular those for working conditions and compensations), and the value that workers attach to job security. For workers who do not value job security, or when other enforcing regulations exist, job security will be a net employment cost. On the other hand, if workers
wages and job security will be quite small, and the firm’s contribution to job security will be perceived by workers as a simple tax. Moreover, the ability of the firm to substitute job security for wages and other labor costs depends on whether the law allows firms to reduce wages. The existence of a binding minimum wage reduces the ability of a firm to offer more job security and lower wages, even if workers themselves would prefer more job security in exchange for lower wages.

Many developing countries are characterized by binding minimum wages, at least in the formal sector, due primarily to two main factors: (1) given the relatively poor coverage of social assistance, governments rely on labor market policies to redistribute income, and (2) because the minimum wage level is seldom related to the idea of satisfying a minimum subsistence level, it is relatively unresponsive to economic conditions. Thus, only when workers are relatively indifferent to different combinations of wages and job security, if the minimum wage were not imposed, would a fixed job security regulation not have any effect on the economy.

Fixed Cost Effects

Besides the effect that job security has on costs, it also has an effect on the labor cost structure. A seminal paper by Oi (1962) suggests that increases in labor costs that are not directly related to hours of work would generate less responsive demand of labor to wages and output. When this rigidity is caused by regulation, it may imply a severe market distortion. In fact, job security transforms labor into a factor that cannot be changed conveniently in the short run, because even when a firm does not need a worker (for example, because product demand has declined), it will keep the worker due to the costs associated with firing. Moreover, job security requires that a firm which hires new labor make a "sunk investment." In Peru, Panama and Mexico, for example, where firms are not allowed to dismiss workers without a "justifiable cause," a firm that hires new labor must also consider the probability that the worker will no longer be necessary at some point. Thus, the firm must make provisions to induce the worker to leave "voluntarily" eventually.
D. Conclusions

This chapter has shown that decisions to provide job security have far-reaching effects. Moreover, the existence of other regulations, such as minimum wages, fringes, specific clauses and the industrial structure also strongly influence the effect of job security on the economy. When the economy is characterized by constraining regulations, such as minimum wages and fringe benefits, the effect of job security on a firm's wage bill and on employment levels will be much more important. The chapter also suggests that the efficiency of the safety net, particularly retirement and unemployment insurance programs, determines the effect of job security on employment. When these programs, which are financed through taxes on wages, become more "efficient" in the delivery of incomes protection, for example, workers will be more willing to substitute lower wages for this protection.

Governments frequently cannot avoid the pervasive effects of job security regulations. It may be difficult politically to amend job security legislation, while the existence of collective bargaining may make it impossible to change existing agreements. In those cases, policies to increase labor productivity and to moderate wage increases may be reasonable substitutes.

Since many developing countries are characterized by volatile economies that are subject to powerful external shocks, the presence of job security regulations is even more significant. It explains why firms have relatively capital-intensive production process, even in countries with abundant labor. The importance of job security in developing countries extends beyond its effects on the direct cost of employment, or on hours worked, but also to its effect on income distribution, because labor markets typically are divided into formal (covered) and informal (not covered) sectors.

Research on the economic effects of job security has been limited. Crucial issues remain to be explored, such as the tradeoff between employment and hours worked, which would be at the root of a firm's ability to react to job security regulations in the short run without depressing economic activity. Given the available data on this issue in developing countries, only aggregate analyses are possible. Aggregate analysis based on estimates of labor demand must account for the role of adjustment lags and for the direct effect of job security in generating higher labor costs or altering elasticities of demand for labor.
Appendix

Below is a formal economic model of the discussion on the cost of job security to the firm and the economy. Consider a representative worker whose utility function \( U \) has the usual convexity properties, with wage \( W \) and job security \( JS \) benefits as arguments. For simplicity, hours worked does not appear as an argument of the utility function as is usually the case. Hours are commonly considered in the firm's cost minimization decision, which is not considered here.

\[
U = U(W, JS) \quad U' > 0, U'' < 0
\]

Because workers have the choice of being employed by different firms or of remaining out of the labor force, a reservation utility level for each job exists \( U' \). A reservation utility is more appropriate than a reservation wage, since the former, as in the present case, considers different dimensions of the quality of a job.

In this model firms will be indifferent between combinations of \( W \) and \( JS \) that do not alter their total costs but still attract the same number of workers. Thus, firms that maximize profits, defined as total revenues minus total costs, will be willing to exchange wage and job security benefits at a given rate \( Z \) that depends on the rigidity of labor. In this case, labor is a completely variable input, and assuming there are no taxes, \( Z \) will be one. In general, then, firms will:

\[
\max \pi = R(L) - T(L, C(W, JS))
\]

where \( \pi \) denotes profits, \( R(.) \) is total revenue, \( L \) is labor services, \( C(.) \) is the cost of labor, and \( T(.) \) is total cost.

Firms must satisfy the constraint \( U(W, JS) \geq U' \), since, otherwise, workers will prefer another job or leave the labor force.

The first-order condition for this maximization problem is:

\[
(1) \quad R'_L(L) = T'_L.
\]
Endnotes


2. For a recent review of the literature, see Riveros and Burton (1991).

3. The necessity of modernizing during structural adjustment has exacerbated the problems of excess capacity and labor.


5. Lucas and Fallon have used annual time series data. They imply that any adjustment lag of less than twelve months would not be picked up by their analysis.

6. Different approaches to workforce reductions — for example, those in Europe and America — will have different effects on both the timing of the reductions and the composition of workers who become unemployed (Houseman, 1987).

7. See, for example, Nickel (1986) and Lucas (1988).

8. In Peru, for instance, firms must pay a significant amount to induce “voluntary quits” (Paredes, 1991).

9. This cost does not include the cost of post-contractual negotiations, to be analyzed next.

10. See Appendix for a brief discussion of a formal model of the impact of job security on the worker and firm behavior.

11. The idea that developing countries have relatively less binding regulation is due to the dichotomy between formal and informal sectors. Peru, for example, has some of the most restrictive job security regulations in the world. However, it also contains a huge informal sector, where such regulation do not apply at all.

12. The fact that the minimum wage in different Latin American countries in 1991 was US $100 despite their different income levels supports this idea.

13. More precisely, the fixed cost characteristic of job security that is closely related to OI's examples is shown by the minimum and maximum compensation that exists in most regulations.

14. For a treatment of this type of behavior, see Tirole (1986).

15. Strictly speaking, we should say “quasi-rent”. An ex-post bargaining solution that splits the quasi-rents evenly is called the Nash solution, however, we do not require any specific game to predict a “labor cost” increase for the firm.

16. Job security benefits are considered in monetary terms and weighted by the probability that the firm must pay them. That is, we assume that, given the number of hours worked, the costs for the firm do not change if job security by $X and wages are reduced by $X.


