

Insiders versus Outsiders

Assar Lindbeck and Dennis J. Snower

The insider-outsider theory examines the behavior of economic agents in markets where some participants have more privileged positions than others. Incumbent workers in the labor market, the “insiders,” often enjoy more favorable employment opportunities than the “outsiders.” The reason for this disparity is that firms incur labor turnover costs when they replace insiders by outsiders. In practice, the distinction between insiders and outsiders is a matter of degree.

The most obvious labor turnover costs are the costs of hiring, firing and providing firm-specific training, but further costs can arise from the attempts of insiders to resist competition with outsiders by refusing to cooperate with or harassing outsiders who try to underbid the wages of incumbent workers. Since these costs are borne, at least in part, by the employers, they give the insiders market power. The insiders use this power to push their wages above the market-clearing level, but firms do not try to replace them with outsiders since it would be costly to do so. The insider-outsider theory then proceeds to examine the implications of this behavior for employment and unemployment (Lindbeck and Snower, 1984, 1986).

Insider-outsider theory was originally constructed as a microeconomic foun-

■ *Assar Lindbeck is Professor of International Economics, Institute for International Economic Studies, University of Stockholm, and Fellow at the Research Institute of Industrial Economics, IUI, both in Stockholm, Sweden. Dennis J. Snower is Professor of Economics, Birkbeck College, University of London, and Research Fellow, Center for Economic Policy Research, both in London, United Kingdom; and Program Director at IZA, in Bonn, Germany. Their e-mail addresses are <assar@ies.su.se> and <dsnower@econ.bbk.ac.uk>, respectively.*

dation for the existence of unemployment, and hence it focused on explaining the absence of wage underbidding even when many unemployed workers are willing to work for wages lower than existing insider wages (normalized for productivity differences). In labor economics, there are three main ways of explaining why such underbidding does not occur. First, legislation may keep the wage above its market-clearing level (the minimum-wage explanation). Second, firms may not accept the outsiders' underbidding, since a fall in the wage may reduce productivity or increase the rate of labor turnover (the efficiency wage explanation). Third, it may not be in the insiders' interests to permit outsider underbidding. Insiders may be able to impose their interests on their employers, since the insiders' positions are protected by labor turnover costs (the insider-outsider theory explanation).

The insider-outsider distinction has also been applied to more specific labor market issues, like the different employment experiences in Europe and the United States in recent decades. The theory also provides a rationale for unions, explains what gives unions their clout, and identifies sources of unions' wage bargaining power. Indeed, the insider-outsider distinction provides insight on a wide number of divides: employed versus unemployed workers, formal versus informal sector employees, employees with high versus low seniority, unionized versus nonunionized workers, workers on permanent versus temporary contracts, skilled versus unskilled workers, the short-term versus the long-term unemployed, and so on.

This article is an idiosyncratic survey of insider-outsider theory. Its overriding aim is not to provide a comprehensive summary of the relevant literature, but rather to describe the vision underlying the theory and to discuss salient contributions to the literature in the light of this vision.¹ The rest of this article is divided into four sections. The first concerns the theory of how labor turnover costs influence wages, employment and unemployment. The second section deals with the insider-outsider theory in relation to two important economic institutions: unions and social norms. The third section confronts the relevant empirical evidence. The last section concludes by briefly presenting some policy implications.

The Theory and Implications

Insider-outsider models rest on four central assumptions. 1) Firms face labor turnover costs that they cannot entirely pass on to their employees.² 2) Insiders have some market power. 3) If entrants remain with a firm long enough, they

¹ Some aspects of this literature have been surveyed by Ball (1990) and Sanfey (1995).

² One reason is that the firms do not incur these costs until they replace their insiders with newly recruited entrants. Furthermore, whereas firms could, in principle, shift labor turnover costs to their insiders through insider "exit fees"—lump sum payments by insiders to their employers upon voluntary quitting—such fees are usually illegal and incentive incompatible. Incentive incompatibility arises because it is often difficult to assess whether a separation is generated by voluntary quitting or firing "without cause," and consequently exit fees would encourage firms to replace their insiders by entrants

become associated with the same labor turnover costs as the insiders, and have an opportunity to renegotiate their wage.³ 4) Employment decisions are made unilaterally by the firms.

When unemployed outsiders are hired, they become entrants, and if the entrants remain with their firm, they eventually become insiders.⁴ Since firms face labor turnover costs and insiders have market power, the insiders are able to put upward pressure on their wages. Since firms make the employment decisions, the turnover costs and associated wages have employment implications.

Labor turnover costs may be divided into two categories. "Production-related" turnover costs must be expended to make outsiders productive within a firm. They include search, hiring, relocation and training costs. "Rent-related" labor turnover costs are instead the outcome of insiders' rent-seeking activities. These come in many forms, such as severance pay, seniority rules, requirements that firms give insiders advance notice of dismissal, and other forms of legal protection against firing. Insiders, who generally comprise the majority of a developed country's electorate, often use their political influence to raise such costs (Lindbeck and Snower, 1988b, ch. 11; Saint-Paul, 1996). Both production-related and rent-related labor costs are common in most labor markets (Malcomson, 1998).

Another kind of labor market turnover cost arises when insiders can protect their jobs and prevent wage underbidding by cooperating with one another in the production process (thereby raising each others' productivity), but refusing to cooperate with outsiders who offer to work for less, creating a productivity differential between insiders and entrants that translates into a labor turnover cost. Insiders may also be on friendly terms with one another but "harass" underbidding new recruits, thereby generating an insider-entrant reservation wage differential, which also results in a turnover cost (Lindbeck and Snower, 1988a). Labor turnover costs associated with noncooperation and harassment activities are likely to be particularly significant whenever work is performed in teams. These costs are manipulable by the insiders and do not require the existence of unions or job security legislation, and thus may be expected to exist even in countries such as the United States, where workers often have limited protection.

Due to labor turnover costs, outsiders face labor market discrimination in the sense that they do not receive equal reward for equal productivity. As a result, outsiders may be involuntarily unemployed or confined to dead-end jobs—that is,

in order to obtain such fees. Reasons why firms cannot pass turnover costs to the entrants are given in the section below.

³ Periodic renegotiation of wages arises partly for legal reasons: employment law usually allows for renegotiation of contracts (see, for example, Malcomson, 1997). Another reason is that it is usually impossible in practice to write contracts contingent on all the possible future events that may be relevant to the employment relationship.

⁴ Insiders who move from firm to firm may retain some of their insider status, depending on the specificity of their human capital, the provisions of job security legislation, the coverage of union agreements, and so forth.

they may be unable to work their way into insiders' jobs even though they are willing to work for less than insider wages, normalized for productivity differences. The outsiders are not party to the negotiations that set the conditions of employment for insiders. The insiders, by contrast, can engage in various anticompetitive practices—for example, by claiming more than the market-clearing wages, pushing for seniority rules, or driving entrants' wages above the minimum levels necessary to attract them—without necessarily facing dismissal. Let us take a closer look at how labor turnover costs lead to such inequalities.

Labor Turnover Costs and Insider Market Power

To see why labor turnover costs are the ultimate source of insiders' market power, it is useful to recognize that a firm has two alternative partners in wage negotiations: insiders and outsiders. Labor turnover costs determine the degree of substitutability between these two alternative negotiations.⁵ When turnover costs are zero, the two sets of negotiations are perfect substitutes and the insider wage is driven down to the reservation wage of the marginal worker. When these costs are prohibitively high, the firm and its insiders have bilateral monopoly power. In between these two extremes, the market power of insiders may be regarded as rising with labor turnover costs (Manzini and Snower, 1996).

This basic framework of thought may be applied to far more than the labor market. In general, whenever a buyer faces a cost of switching from its current supplier to another one, the current supplier thereby gains market power, which can be exploited by raising the price. For example, if product or credit market regulations make it costly for new firms to enter, then consumers will find it costly to abandon the existing suppliers in favor of new suppliers, and thereby the existing suppliers gain market power. Just as product markets become less than perfectly contestable when there are barriers to the entry of firms (Baumol, Panzar and Willig, 1982), so labor markets become less than perfectly contestable when there are labor turnover costs.

The Influence of Insider Power on the Outsiders' Opportunities

When insiders use their market power to improve their labor market opportunities, what happens to the opportunities of the outsiders and how do entrant wages respond?

If entrants had no market power at all and there were no lower bounds to their pay, the marginal entrants would always receive their reservation wage, making them indifferent between staying jobless over their remaining lifetime and the expected present value of utility from work. Then insiders' power over their wages would have no influence on the present value of labor costs for entrants; any rise

⁵ In Shaked and Sutton (1984), firms are constrained to bargain with their insiders for a specified span of time; thus, insiders and outsiders are not substitutable during this span, but perfectly substitutable beyond it.

of the insider wage would simply be offset by a fall in the entrant wage. Thus, firms' employment decisions would be unaffected. This point has been made by Bertola (1990) and others.

However, if firms bear some of the labor turnover costs, they cannot hand all these costs on to the entrants. Since insiders' wages are usually well above the amount necessary to keep them from dropping out of the labor force, and since these wages are paid over much of their working lifetimes, an entrant's reservation wage (before becoming an insider) is usually very low—in general, substantially negative. But in practice we do not observe entrants paying large sums of money to purchase jobs from their employers. There are various reasons why this is so.

First, entrants may be unable to afford a large, negative reservation wage on account of credit constraints. Second, such a reservation wage may be infeasible on account of minimum wage laws, social norms, or union pressure on firms. Third, entrants may have some market power, since firms often expend costs in attracting, screening, hiring and training them. Indeed, to the extent that these costs are incurred before the firm negotiates the wage with the entrant then, by the time the wage negotiations occur, these costs are sunk and therefore the firm cannot shift the costs onto the wage, according to standard bargaining theory.⁶

Fourth, firms may offer entrants more than their reservation wages to avoid an incentive incompatibility problem (Manzini and Snower, 1996). Entrants will have one reservation wage if they anticipate that they will become insiders and receive insider wages in the future. But entrants must also fear that if the reservation wage is low, then firms have an incentive to “churn” and hence dismiss the entrants before they turn into insiders. If entrants fear churning and thus cannot be sure that they will stay with the firm, then their reservation wage will be higher to make up for this risk. Under these circumstances, firms may find it profitable to offer an entrant wage that is high enough to make clear that the firm will not have an incentive to churn. This entrant wage will need to be higher than a reservation wage under bonding, but be lower than the reservation wage under churning.

Finally, insiders may use their market power to influence not only their own wages, but those of the entrants as well. At first sight, it may appear that when the insiders' positions are protected by labor turnover costs (and possibly also by seniority rules), both the insiders and their employers have an incentive to set the entrant wages as low as possible (equal to the entrants' reservation wages), for then the resulting economic rent (to be shared between the insiders and their employers) is maximized (Frank and Malcomson, 1994; Gollier, 1991). But insiders know that low entrant wages will encourage greater employment of entrants. If entrants turn into insiders in the future, the future insider workforce will expand. Thus, if insiders and entrants are substitutes in the production process, the current insiders could become worse off in the future: either their future wages will fall, or firms will

⁶ We are grateful to James Malcomson for this point.

be tempted to dismiss their high-wage senior employees and retain their low-wage junior employees (Solow, 1985). To avoid such adverse contingencies, the current insiders have an interest in pushing entrant wages above the entrants' reservation wage, thereby restricting the firms' employment of entrants.

For these various reasons, while labor turnover costs raise the insider wage, the entrant wage—unlike the reservation wage—does not fall by an equivalent amount in present value terms. Thus, the labor turnover costs raise the present value of firms' wage costs of the marginal worker, and lead firms to reduce employment. Outsiders would prefer to find employment at the entrant wage rather than to remain unemployed, but since firms keep their employment below what they would choose if paying reservation wages to entrants, outsiders are unable to find jobs. The outsiders' choice sets are thus inferior to those of the insiders both at any point in time and over their lifetimes.

These labor market outcomes can also translate into social differences. In many developed countries nowadays growing attention is devoted to the phenomenon of "social exclusion." Some individuals, families and other social groups are excluded from the mainstream networks of social relations within a society. They are typically unemployed or working at temporary, low grade, or dead-end jobs, and finance much of their consumption out of transfer payments from social assistance programs, their parents' income and the black market. They often live in the underclass neighborhoods of large cities, with meager social services, poor schooling, and scant policy protection. These are the real "outsiders" in society, and their outsider position in the labor market is an important source of their social exclusion. These consequences are sometimes accentuated by rent control, which creates insiders and outsiders in the market for rented apartments as well.

How Labor Turnover Costs Affect Employment and Unemployment

Labor turnover costs discourage firms from hiring when labor demand rises and from firing when labor demand falls. In the aftermath of booms, employment will tend to remain relatively high. However, in the aftermath of recessions, employment will tend to remain lower than it would otherwise have been. Employment inertia increases, so that firms' current employment depends more strongly on past employment.

Other implications concern working hours and capital-labor substitution. Since labor turnover costs are usually associated with replacement of employees, rather than variation in their hours of work, labor turnover costs tend to encourage variations in working hours rather than in people employed. Furthermore, the greater are these labor turnover costs, the greater will be the incentives of firms to respond to cyclical fluctuations through capital-labor substitution rather than

through hiring and firing. Consequently, swings in productivity will be more procyclical.

These medium-run effects may extend over years, even a decade or more into the future. Many continental European firms, facing relatively high labor turnover costs, have been particularly vulnerable to this phenomenon, illustrated by the high persistence of unemployment in this part of the world.

Over the long run, the influence of labor turnover costs on the level of employment is less clear-cut. Since labor turnover costs discourage both hiring and firing, the direct effect of the labor turnover cost on long-run employment could be positive or negative. The ultimate effect on employment depends on such factors as the discount rate, the stochastic process generating the demand shocks, the rate of productivity growth, and the quit rate.

For example, when demand shocks are permanent, then firing costs may stimulate average employment, because while a firm that fires incurs the firing costs immediately, a firm that hires faces the firing costs only in the uncertain future. Thus firing may be discouraged more than hiring (Bentolila and Bertola, 1990). Conversely, hiring and training costs tend to reduce average employment, because when a firm hires it incurs the hiring costs immediately, but when it fires workers such costs are uncertain and occur in the future. If the firing costs are more important than the hiring and training costs—an assumption often made implicitly, without obvious justification, in this branch of the literature—these particular mechanisms may raise rather than reduce employment over the business cycle.

However, this result can be overturned by other factors. For example, when firms also face idiosyncratic productivity shocks, then a rise in firing costs reduces the number of firms engaged in firing; consequently, aggregate firing is discouraged less than would otherwise be the case (Bentolila and Saint-Paul, 1994). Or when the marginal revenue product curve drops quickly, so that the marginal revenue product in a boom is sufficiently low relative to its value in a slump, then a rise in firing costs may also reduce employment (Bertola, 1992). Chen, Snower and Zoega (1999) show how the expected employment effect of firing costs depends on the combination of productivity growth and the probability of recession or boom.⁷

But perhaps much more important, labor turnover costs also have an indirect effect on long-run employment, which occurs through wage formation. As noted in the previous section, an increase in labor turnover costs is likely to raise the present

⁷ Vetter and Andersen (1994) derive the result that the exercise of insider power *raises* employment relative to the competitive outcome. To reach this conclusion, they not only assume that entrants receive their reservation wages, but they also assume: a) all labor turnover costs are production-related (a training cost); b) they are not manipulable by the insiders; and c) insiders can reduce their wages to avoid entrants' underbidding, while under competitive conditions these same workers don't do this. Thus, their unrealistic result is based on the unrealistic underlying assumptions.

value of firms' wage costs, thereby leading to a fall in employment. This effect is unambiguous in its direction and could well be large.

Taking the direct and indirect effects together, the influence of labor turnover costs on employment and unemployment can be shown to depend on the nature of macroeconomic fluctuations. When business cycles are short and shallow (as in the 1950s and 1960s), labor turnover costs encourage labor hoarding in recessions in expectation of an imminent upturn, and thus these costs may have only a small (and possibly positive) effect on employment. But when the cycles are long and deep (as in the aftermath of the two oil price shocks of the 1970s and of the restrictive macroeconomic policy of the early 1990s), the labor turnover costs may not do much to discourage layoffs in recessions, but they do discourage hiring in booms because of uncertainty about the strength of the upswing and out of fear of another major downturn around the corner. Under these circumstances, labor turnover costs may have an adverse influence on employment (Lindbeck and Snower, 1988b, ch. 11). Diaz and Snower (1996) argue that when macroeconomic fluctuations are highly persistent, the wage-mediated effect of turnover costs on employment is strong relative to the ambiguous direct effect of these costs on employment. Thus, a given set of turnover costs have a more adverse influence on employment when the fluctuations are more persistent.

Another channel whereby labor turnover costs may reduce employment is through the hold-up problem, as surveyed in a labor market context by Malcomson (1998). Labor turnover costs turn hiring into an investment decision, where the employer must face immediate costs in the expectation of a future return. Through later wage bargaining, the insiders may be able to capture some of the return to this investment. As result of this hold-up problem, firms may have an incentive to employ fewer people than they otherwise would have.

The Dynamics of Employment and Unemployment

In addition to examining labor market activity at any point in time during the business cycle, the insider-outsider theory may also be used to analyze dynamics of employment and unemployment. Some implications of this approach address the behavior of firms, insiders, and outsiders.

As noted, when hiring and firing is costly, the current employment level of firms depends positively on their past employment levels. Because of this inertia, the employment effects of temporary labor market shocks last longer than the shocks themselves. This phenomenon is known as "employment persistence." As long as the shocks have a stronger effect on employment than on labor supply, employment persistence translates into unemployment persistence. For instance, an oil price shock leads to higher unemployment even after the shock has disappeared. An extreme form of unemployment persistence is "hysteresis," when a temporary shock has a permanent effect on unemployment.

The degree of unemployment persistence may be asymmetric across positive and negative shocks. For instance, since insiders are associated with higher turn-

over costs than entrants, the degree of employment inertia depends on the insider-entrant composition of the firm's workforce. This composition is determined by the firm's "insider membership rule," describing how employees gain and lose insider status within the firm.⁸ Now suppose that the insider membership rule is asymmetric in the sense that insiders who are fired lose their insider status more quickly than entrants gain insider status. Then a current macro downturn may have a more persistent effect on future unemployment than does a current macro upturn of equal magnitude (Lindbeck and Snower, 1987a). The degree of asymmetric persistence depends on the proportion of insiders who move to unemployment rather than to other jobs (the smaller is the proportion of job-to-job movements, the more quickly insiders lose insider status) and the importance of firm-specific skills relative to general skills (the more important are the firm-specific skills, the more quickly insider status is lost).

Turning to the dynamic behavior of insiders, one form of asymmetric persistence arises because of asymmetric employment probabilities. In a boom, when insiders' jobs are reasonably secure, a downswing may be expected to reduce job security by more than an upswing raises it. Then senior insiders—exerting stronger influence on insider wages than their junior counterparts—may insist on unchanged wages in a downturn (leading to layoffs of their junior colleagues), whereas they may press for wage increases in an upturn. The more stringent the seniority ranking, the more asymmetric will be the resulting employment persistence.

Moreover, insiders' incentives to prevent wage underbidding by threats of noncooperation and harassment may be asymmetric over the cycle. Insiders are more likely to be exposed to wage underbidding during business downswings than during upswings, both from outsiders and from junior workers who in downswings may want to accept wage cuts to keep their jobs.

Much of the literature on unemployment persistence has gone a different route than the mechanisms just discussed. For instance, Blanchard and Summers (1986) and Gottfries and Horn (1987) argue that a negative, mean-reverting productivity shock leads firms to fire some of their insiders, and thereby raises the expected job security of the remaining insiders (since the shock is expected to reverse itself). In response, insiders raise their wages and consequently discourage future employment, thereby generating employment persistence. This argument is frequently combined with another; namely, that in the presence of diminishing returns to labor, the insider wage may depend inversely on the size of the insider workforce. Thus, a current contraction of the insider workforce is associated with a higher marginal product of labor than heretofore, allowing insiders to achieve a

⁸ An insider membership rule is formally analogous to a capital accumulation equation in which the current capital stock is equal to the capital stock surviving from the previous period plus the amount of investment. The analogy is worth taking seriously, for labor turnover costs turn labor into a quasi-fixed factor of production, like capital (Oi, 1962).

higher negotiated wage and discourage future employment. Blanchard and Summers argue that such mechanisms lead to hysteresis in Europe.

In our opinion, however, the pervasive emphasis on these mechanisms is misplaced. A combination of complete hysteresis and random labor market shocks leads to the counterfactual prediction that unemployment hits zero or 100 percent in finite time. In practice, productivity shocks are generally not mean-reverting, so the fact that some insiders are fired does not necessarily increase the security of the remaining insiders. Diminishing returns to labor are at best a short-run phenomenon and, in the presence of excess capital capacity, may well be irrelevant to wage determination because when there is excess capital capacity, firms generally vary labor and capital services simultaneously in response to shocks, rather than varying labor relative to a fixed stock of capital in use (Lindbeck and Snower, 1994). Finally, even in the presence of diminishing returns to labor, wages need not be inversely related to the size of the insider workforce. The reason is that when wages are the outcome of bargaining, they commonly depend both on workers' productivity and on their reservation wages (that would make them indifferent between work and leisure). Whereas productivity falls with employment under diminishing returns, the reservation wage rises with employment if the labor supply curve is upward-sloping; thus the relation between the negotiated wages and employment is ambiguous.

Regarding the dynamic behavior of outsiders, the deterioration of their skills may generate unemployment persistence. Since firms often exercise some bargaining power in wage negotiations and thus capture some of the economic rent generated by workers' skills, these firms get more rent from skilled workers than from unskilled workers. Thus, if the skills of unemployed workers deteriorate, firms will find these workers less desirable. In this way, current unemployment gives rise to future unemployment. Unemployment persistence can also arise when long-term unemployed workers are stigmatized by firms (for example, Blanchard and Diamond, 1994). Such stigmatization arises when firms use unemployment and the length of workers' unemployment spells as a predictor of their potential productivity. Once again, current unemployment comes to depend positively on past unemployment. Finally, unemployment persistence may arise when outsiders' efforts at job search decline with their duration of unemployment. This may occur because their subjective probabilities of finding jobs become smaller, the longer they are unemployed (Layard and Bean, 1989). Moreover, the employment probabilities of outsiders are likely to respond asymmetrically to business fluctuations; that is, the possibility of employment rises in upturns, but doesn't get any lower than zero in downturns. As a result, the resulting employment persistence may be asymmetric.

Since the deterioration of the outsiders' human capital, along with stigmatization and depressed job search, become more pronounced as the duration of unemployment lengthens, these considerations help explain why real wages and

inflation tend to be more responsive to changes in short-term unemployment than to changes in long-term unemployment.

Many of the lagged adjustment processes discussed above, along with a host of others, are complementary.⁹ For instance, when a temporary, adverse labor demand shock occurs, costs of hiring, training and firing imply that employment will remain low for some time after the shock has disappeared. But because employment remains low, some of the people who lost their jobs become long-term unemployed. If these people are less effective at competing for jobs than the short-term unemployed, wages will be higher than they would otherwise have been. Consequently, employment remains low for far longer. When adjustment processes are complementary along such lines, their joint influence is greater than the sum of the individual processes, and thus it may take unemployment a long time to approach its long-run equilibrium in the aftermath of a shock. Karanassou and Snower (1998, 1999) offer a theoretical and empirical assessment of such complementarities.

Thus, in analyzing the movement of unemployment, the insider-outsider theory shifts the focus away from exclusive concentration on changes in the long-run unemployment equilibrium and emphasizes a complex system of interacting adjustment processes and related unemployment persistence. The adjustment dynamics of the insider-outsider theory have two important implications, particularly in many European countries.

First, the longer-term swings in unemployment may be attributable not just to movements in the long-run unemployment rate, but also to prolonged deviations of actual unemployment from the long-run rate (Lindbeck, 2000). For example, Henry, Karanassou and Snower (1999) suggest that the movements of U.K. unemployment over the past 30 years are due largely to slow adjustment dynamics. By the same token, the fall of the U.S. unemployment rate over the 1990s may be due not just to a fall in the long-run equilibrium unemployment rate, but also—perhaps largely—to the presence of favorable shocks (falling oil and other raw material prices and increased international competition) combined with persistence mechanisms.

Second, when the labor market is growing, labor market adjustment processes may prevent the unemployment rate from converging to what the long-run unemployment rate would be in the absence of adjustment costs. When the labor demand and labor supply curves are continually shifting outwards, the adjustment processes may never have a chance to work themselves out fully. Under these circumstances, the adjustment processes determine how far employment and the labor force are lagging behind their moving targets, even in the long run (Karanassou and Snower, 1998).

⁹ Other lagged adjustment processes, for example, are generated by the costs of moving from temporary to permanent employment and from unskilled to skilled jobs. In addition, of course, there are menu costs and wage-price staggering in the real world, implying lagged adjustment of wages and prices.

Labor Market Segmentation

The insider-outsider theory has important implications for the nature of labor market segmentation. It is usually assumed that the “primary” and “secondary” sectors differ in certain respects. In terms of wages, whereas secondary-sector employees receive their reservation wages (at which they are indifferent between employment and unemployment), primary-sector employees earn significantly more. In terms of job tenure, primary-sector employees have significantly higher probabilities of retaining their jobs than do their secondary-sector counterparts. Finally, in terms of promotion opportunities, the primary sector has promotion ladders whereas the secondary sector operates more like an auction market. (In practice, of course, the distinction between the primary and secondary sectors is one of degree rather than kind.) Efficiency wage theory explains labor market segmentation by asymmetric information; specifically, primary-sector employers use their wage offers to stimulate their employees’ productivity, while secondary-sector employers do not. The insider-outsider theory instead explains these distinctions in terms of labor turnover costs. These costs are significant in the primary sector but not in the secondary sector, and thus primary-sector employees have some market power, whereas the secondary sector is competitive.

To the extent that labor turnover costs rise with job tenure within the primary sector, the insider-outsider theory can also help explain the presence of tenure-related wage scales. We are not arguing that labor turnover costs are the only factor here. Human capital theory predicts that the slope of intertemporal wage scales depends on how workers’ productivities change with their length of job tenure (Becker, 1962), while according to efficiency wage theory, firms set a pattern of rising wages with greater job tenure to motivate their employees—a kind of “bonding” contract (for example, Lazear, 1981). However, since labor turnover costs (as a function of job tenure) are generally not perfectly correlated with productivity or with incentive effects (again as a function of tenure), the insider-outsider explanation is, at least in principle, different from explanations in terms of the human capital and efficiency wage theories.

Insider-outsider theory is also able to account for the observation that some firms pay their workers higher wages than other firms do, regardless of the occupations, ages, and tenure groups from which the workers are drawn. Numerous studies have found that industries that pay comparatively high wages tend to have relatively high profits, high concentration ratios in product markets, high capital-labor ratios, and high union density (Dickens and Katz, 1986). The insider-outsider theory sheds some light on these patterns by indicating that insiders’ wages are the outcome of a process whereby insiders and their employers share the available economic rents. Lindbeck and Snower (1990a) show that, under a broad range of conditions, firms stand to lose more from a breakdown in wage negotiations the greater the profit opportunities available under agreement, the greater the capital-labor ratio of the firm, and the greater the concentration ratio of the industry. Thus, employers in such settings are more willing to pay high wages to insiders. Moreover,

the greater is union density in an industry, the more leverage unions are able to give insiders in their threats of obstructive activity under bargaining disagreement, and thus the higher the resulting insider wages—creating the well-known “union premium.”

Institutions

The insider-outsider theory has significant implications for various labor market institutions. In this section we consider two: labor unions and social norms.

Unions

In much of the traditional literature of union behavior, the existence of unions is taken for granted, rather than explained. The union is usually assumed to maximize the sum of its members' utilities or the expected utility of a representative member; in either case, the union is viewed as maximizing a welfare function that depends on the wage and employment level. This analysis needs to be modified when the insider-outsider analysis is applied to unionized and nonunionized workers.

First, the insider-outsider theory provides an explanation of what gives unions their clout; specifically, firms are reluctant to replace their high-wage unionized employees with low-wage nonunionized ones because of labor turnover costs, including costs related to the powers of insiders to intimidate underbidding outsiders. Unions provide leverage for these turnover costs since firms are more likely to grant wage increases when the alternative is the replacement of all unionized employees than when the alternative is just firing a single employee. Unions also provide new tools of rent-seeking, such as strikes, work-to-rule activities and picket lines, which tend to be more effective when workers act in unison. Moreover, unions act as interest groups in the political process, lobbying for job security legislation and other sources of labor turnover costs. Unions, of course, also fulfill other important social functions, such as protecting individual workers against arbitrary and discriminatory treatment by employers, transmitting information about the production process between employees and management, and participating in the political dialogue in society at large, hence contributing to political pluralism.

Second, the insider-outsider theory highlights the idea that indifference curves of a union in wage/employment space have a kink: they are downward-sloping as long as employment is less than union membership, and flat when employment exceeds membership (Carruth and Oswald, 1987). Thus, in a cyclical upturn, when employment exceeds membership, the union will push for wage increases; but in a

downturn when employment often falls short of membership, the union will accept a combination of wage restraint and employment cuts.¹⁰

Third, insofar as labor turnover costs are the source of unions' market power and these costs are generally positive but not prohibitive, the insider-outsider theory raises doubts about the monopoly union model, because a union can be a monopolist only if labor turnover costs are prohibitive. It also raises some doubt about the standard union bargaining models in which unions and employers have bilateral monopoly power. Such bilateral monopoly power can arise only if labor turnover costs are so high that the unionized insiders are more profitable than the nonunionized outsiders at any feasible insider wage. In practice, turnover costs are generally not that high, and thus employers and unions must take competition from outsiders into account in their wage bargaining. Under these circumstances, union wage setting depends on more than union objectives, firm employment decisions, and relative bargaining strengths. It is also influenced by additional constraints. One is a "relative profitability constraint" whereby the union wage is no greater than the outsiders' reservation wage plus the relevant labor turnover costs. Another is a "credible threat constraint" whereby the union wage must be such that if firms reject the unions' wage proposals, union members have an incentive to do what the union has threatened, like going on strike (Lindbeck and Snower, 1987b).

Fourth, the insider-outsider theory challenges the traditional assumption that unions maximize the sum of the welfare of all union members or of a representative union member. Since labor turnover costs rise with job tenure, senior insiders tend to have higher probabilities of retaining their jobs than do their junior counterparts. Thus, senior workers, who are often more influential within the union, will tend to push for higher wages than will junior workers. Similarly, when unions have both employed and unemployed members (a common occurrence in Europe, for example), the interests of the employed members diverge from those of the unemployed ones. In practice, unions are primarily concerned with their employed workers, partly because the employed are more numerous.

Finally, insofar as labor turnover costs rise with job tenure, the insider-outsider theory suggests why unions typically support seniority arrangements in which wages rise with job tenure. In the context of the insider-outsider theory, the rate at which retention probabilities and wages rise with job tenure depends on the rate at which labor turnover costs rise with tenure.

The insider-outsider theory helps clarify the conditions under which unions will prosper. According to the insider-outsider theory, unions are likely to thrive when: a) individual employees' turnover costs are high, so that there is a significant payoff from coordinating their rent-seeking activities; b) firms have significant market power in product markets, so that there are rents to be exploited; c) the political process is susceptible to job protection lobbying; and d) employment

¹⁰ An early analysis of the employment consequence of losing union membership status is Horn (1982).

legislation protects rights to strike, picket, and other union rent-creating activities.¹¹ This means that unions may be regarded both as a consequence and a cause of labor turnover costs.

Social Norms

The insider-outsider theory explains why jobs aren't given to the lowest bidders—even assuming a world where all agents display purposeful (rational) economic behavior, as usually assumed in economics. But there are other, complementary ways of looking at the issue. For sociologists and many other observers of human behavior, it may be more natural to argue that there is a social norm against outsiders underbidding the wages of incumbent workers, and against the acceptance of such lower bids by firms. Although economists have largely neglected social norms, at least until recently, this concept has for a long time been a basic one in sociology (Parsons, 1952).¹² Social norms imply that a certain type of behavior is expected by others, and enforced by sanctions that are social rather than economic in nature. Conformity with social norms is met by approval, status and pride, while deviation is met with by disapproval, stigmatization and shame.

There is ample evidence that much human behavior is strongly influenced by social norms (Coleman, 1990). Sociologists generally agree that the labor market is a hotbed for social norms: for instance, in the case of the determination of “proper” work effort and “fair” relative wages (for instance, Elster, 1989, in this journal).

Indeed, some scholars have argued that rational economic calculations are not sufficient to generate and maintain the type of noncooperative and harassing behavior postulated in one central version of insider-outsider theory, and that a broader social norm against wage underbidding is in fact required (Akerlof, 1980, 1991; Elster, 1989). In particular, threats of noncooperation and harassment by insiders have been alleged to be time-inconsistent (Fehr, 1990). The argument is that the insiders' refusal to cooperate with underbidders may reduce the productivity not only of the underbidders but also of the insiders themselves, and that harassment may create disutility for the harassers themselves. These assertions generally do not hold water when insiders also threaten to harass colleagues who cooperate with, or do not harass, underbidding outsiders. Nor does the argument hold in a multiperiod context, for insiders may very well be willing to pay a price today to discourage underbidding in the future. Noncooperation and harassment would then be viewed as an investment in credibility.

But even though the noncooperation and harassment version of the insider-outsider theory does not require a social norm against wage underbidding, the model becomes richer and more powerful if combined with such a social norm.

¹¹ There are, of course, also other types of legislation that boost union power. One example is union control over the unemployment benefit system, such as in Belgium and Sweden.

¹² Attempts to integrate social norms in economic analysis of the labor market include Akerlof (1980) and Lindbeck (1995).

This kind of social norm may be particularly effective in constraining behavior when the norm is shared not only among incumbent workers and potential underbidders, but among managers as well. Some questionnaire studies suggest that managers have a stronger aversion than insiders themselves to pursue, or accept, underbidding offers (Agell and Lundborg, 1995; Bewley, 1998). Insiders' labor market position may also be boosted by a social norm among employers according to which layoffs and firings should be avoided as much as possible even in business downturns—a norm that has perhaps weakened in the last decade (Osterman, 1999).

Indeed, insider-outsider theory may be viewed as providing an explanation of how a social norm against wage underbidding could emerge and be sustained. Since it is in the personal self-interest of insiders to protect themselves against underbidding, they have incentives to serve as “senders” and “monitors” of such a norm. Unions may be important in this respect, both by making noncooperation and harassment activities more efficient and also by helping establish and monitor social norms against underbidding among workers and managers.¹³

Empirical Evidence

The strategic assumptions of the insider-outsider theory have close real-world correspondences. Hiring, training and firing costs are pervasive, as well as a host of other labor turnover costs. Historical experience documents the hostile manner in which insiders often treat outsiders who try to underbid insider wages; terms like “scabs” reflect the attitudes of insiders to such outsiders. Moreover, the predictions of insider-outsider theory also lend themselves to immediate real-world applications. For instance, higher persistence of unemployment in Europe than in the United States is often seen in the perspective of the insider-outsider theory, as is the role of unemployment persistence versus changes in the long-run unemployment equilibrium rate in explaining unemployment movements and the unemployment effect of labor turnover costs over different phases of the business cycle. In many of these cases, the terminology and conceptual framework of the theory is only informally applied. However, informal applications are one important route for judging the usefulness of a theory.

Systematic confrontation of the insider-outsider theory with empirical evidence by way of formal statistical tests is, of course, also crucial, and a number of such tests have also been carried out. One set of empirical tests has considered the extent to which real wages are affected by conditions inside individual firms, and not only conditions outside. “Inside factors” usually considered are the productivity

¹³ It is worth emphasizing that this is just one of many possible explanations. The notion of “fair wages,” like that of “just prices,” is an old one. These notions, along with the dislike of competitors who underbid, often have a range of sources. We are grateful to William Baumol for noting this point.

of workers, output prices or profits,¹⁴ hiring and firing costs, and the bargaining strength of workers. Obvious “outside” influences are factors affecting the outside options of workers, such as the levels of unemployment, unemployment benefits and other welfare-state benefits, as well as wages offered by other firms. Contrary to what is implied by some authors (for example, Layard and Bean, 1989), the finding that outside influences are relevant to wage formation is not evidence against the insider-outsider theory. The theory predicts that not only outside, but inside and outside, influences are significant, since outsiders affect the wage setting process indirectly via their influence on insiders’ fallback positions and outside options in wage bargaining.

Studies along these lines have been done in many contexts: cross-section regressions over countries and production sectors (Coe, 1990; Holmlund and Zetterberg, 1991); across regions such as U.S. states (Kendix, 1991); and using microdata for individual firms (Blanchflower, Oswald and Garrett, 1989; Nickel and Wadhvani, 1990). Holmlund (1990) and Lever (1995) offer summaries of parts of the empirical literature in this field, and Gregory (1986) explores the empirical implications of inside factors for the Phillips curve. Most tests are consistent with the hypothesis that both inside and outside factors influence real wages. When wages are largely set in the interest of insiders, as postulated by the insider-outsider theory, we would also expect that layoff rates have a negative influence on real wages, since higher layoff rates threaten the insiders’ jobs. A study for the Netherlands by Graafland (1992) is consistent with this prediction.

The implications of different degrees of “insiderness” for wage formation have also been studied empirically. For instance, Dolado and Bentolila (1993) have found evidence that an increase in the number of fixed-term employees, who are workers with weak inside status, boosts the market power and the real wages of permanent workers who have the highest inside status. Regarding the influence of different degrees of “outsiderness” on wage formation, many studies indicate that the long-term unemployed exert considerably less (downward) pressure on real wages than do the short-term unemployed (for example, Layard and Nickel, 1987). While this observation is consistent with the predictions of models lying in areas of overlap between the insider-outsider, human capital, and search theories, the prediction that (un)employment inertia increases with the level of labor turnover costs is more specific to the insider-outsider theory, and it is broadly consistent with empirical studies (Holmlund, 1990; Nickell and Layard, 1997, Table 15). This observation also fits well with empirical evidence that countries with high labor turnover costs have lower exit rates from the unemployment pool than other countries (Alogoskoufis et al., 1995).

Another important empirical issue concerns the influence of labor turnover costs on the average rate of unemployment over the cycle. While theoretical

¹⁴ The idea that profits influence wages is an old one; see, for instance, Slichter (1950).

considerations above indicate that this influence is ambiguous, the insider-outsider theory adds that the greater is the market power of insiders, the more likely is the influence to be negative.¹⁵

Moreover, the insider-outsider theory leads us to expect that the frequency and duration of unemployment spells for typical outsider groups such as young workers, women and some minorities will be comparatively high in countries where insiders enjoy relatively high job security and strong market power. The reason is that in the presence of high labor turnover costs, insiders can insulate themselves from macroeconomic fluctuations to a considerable extent, leaving outsider groups to bear the main burden of negative shocks. We also expect that across countries with about equally high legislated labor turnover costs but different cyclical fluctuations, the unemployment rates of typical outsider groups will differ widely whereas the unemployment rates of the core groups (whose members often move from job to job) will be more uniform, and relatively low. The available empirical evidence is consonant with these predictions (Elmeskov, Martin and Scarpetta, 1998, Fig. 3).

Some of the theory's predictions about labor market dynamics have also been tested. For instance, the observation that unemployment persistence is higher in most countries in western Europe than in the United States is consistent with the insider-outsider theory, which predicts that persistence would increase with higher labor turnover costs.

Other studies of labor market dynamics refer to the relations between short-term (cyclical) macroeconomic fluctuations and labor hoarding, hours of work, capital-labor substitution and productivity movements. For instance, in countries with high labor turnover costs, we would expect relatively large labor hoarding during recessions. This pattern seems to be the case; the size of the workforce fluctuates less relative to output in western Europe than in the United States over the business cycle. This finding helps explain why labor productivity is more procyclical in western Europe than in the United States. Since labor turnover costs are related to variations in the number of workers, we would also expect that hours of work fluctuate more in countries with high labor turnover costs. This prediction is consistent with data for west Germany and the United States (Abraham and Houseman, 1993).

Some evidence also exists that wage adjustment is asymmetric in the sense that real wages rise more readily in upturns than they fall in downturns, as predicted by various dynamic insider-outsider models. For example, Holzer and Montgomery (1990) find that wages adjust asymmetrically with respect to sales growth, according to a survey of U.S. firms in 1980 and 1982. Blanchflower (1991), studying the British Social Attitudes survey, finds that wages rise when workers expect employment at

¹⁵ Nickell and Layard (1997) do not find any systematic relation of this type in aggregate data in their cross-country study, though they report that long-term unemployment is raised while short-term unemployment is reduced. By contrast, Elmeskov, Martin and Scarpetta (1999) do find that the average rate of unemployment is raised by such arrangements.

their firms to rise, but wages remain constant when they expect employment to fall. Nickell and Wadhvani (1990) also find evidence of downward wage rigidity for firms surveyed in the United Kingdom. Begg et al. (1989) find evidence of asymmetric persistence in the United Kingdom, Japan and (to a lesser extent) Germany.

Many empirical studies have also tested the predictions of the insider-membership variant of the insider-outsider theory (for example, Blanchard and Summers, 1986), according to which wages depend inversely on past employment, and the current unemployment rate is so persistent that it is the best predictor of the future unemployment rate (the hysteresis phenomenon). We have argued above that this variant is an unlikely special case, and indeed there is little empirical support for it (Holmlund, 1990; Lever, 1995; Nickel and Wadhvani, 1990).

High labor turnover costs are expected to boost labor productivity in the long-run perspective, though perhaps at the expense of the employment level, by stimulating higher real wages and thus encouraging capital-labor substitution. The insider-outsider approach suggests that this effect may occur even with plenty of unemployed workers, because high labor turnover costs protect the insiders' position. Investment in firm-specific human capital is also expected to be encouraged by high labor turnover costs. These may be two of the reasons (among many) why western Europe experienced a higher rate of long-run productivity growth than the United States from the 1950s through the 1980s. But this boost in measured labor productivity happens because low productivity workers are being kept out of work by high real wages due to the power of insiders. Of course productivity growth depends on many factors in addition to those above, as evidenced by the higher productivity growth in the U.S. economy than in western Europe during the second half of the 1990s.

Regarding some political economy implications of the insider-outsider dichotomy, there is some support for the claim that, in countries with high unemployment, insiders (who constitute a majority of the electorate), are able to push through (or at least support) legislation boosting the costs of firing workers, facilitating strikes and extending collective bargaining agreements to firms without organized workers (for instance, Saint-Paul, 1996). There seems also to be a positive correlation between the strictness of employment protection legislation for permanent workers and the so-called "excess coverage" of wage contracts, expressing the extent to which union wage agreements are extended to nonunion members. One interpretation is that insiders, who benefit from strict employment protection legislation, have been able to insist on legally enforced extension of wage agreements as a protection against wage underbidding (Elmeskov, Martin and Scarpetta, 1998).

Taken as a whole, these pieces of evidence support the proposition that the insider-outsider approach helps account for a number of salient empirical labor market phenomena. However, it is also fair to note that some of the evidence, while illustrating that the insider-outsider approach fits with recognized economic patterns, is also consistent with other labor market theories.

In making further empirical progress, perhaps the most important starting point would be to measure labor turnover costs with better precision. It would then be easier to test a number of implications of the insider-outsider theory. In particular, we would like to know whether the magnitude of insider wages (relative to the reservation wage), and the share of wages relative to profits, tend to rise with labor turnover costs. This would also help in judging the relative importance of “inside” versus “outside” factors in wage formation, and the extent to which union power and union wage premiums depend on labor turnover costs. Furthermore it would be important to explore if the relative degree of employment persistence, across firms or sectors, depend on the relative magnitude of labor turnover costs. The size of labor turnover costs also raises important issues concerning the intersectoral wage structure, as well as for labor market features like job queues, retention rates, and the consequences of labor turnover costs for employment variability. Moreover, more work needs to be done on the empirical evaluation of asymmetric persistence, which may shed light on the question why, over the past 25 years, European unemployment has tended to ratchet upwards from one recession to the next while U.S. unemployment has remained essentially trendless.

As this list of topics makes clear, empirical investigation of insider-outsider phenomena is still in its infancy.

Policy Implications

Although the policy implications of the insider-outsider theory are diverse (Lindbeck and Snower, 1988b, ch. 11), they have a common thrust. Insofar as insiders have more favorable opportunities than outsiders, policies that create a more level playing field in the labor market can improve both efficiency and equity. Either “power-reducing policies” that mitigate the insiders’ market power relative to that of outsiders or “enfranchising policies” that make outsiders more attractive to employers and give them a stronger voice in the wage determination process can help level the playing field (Lindbeck and Snower, 1990b).

Power-reducing policies include restrictions on strikes and picketing and relaxing job security and seniority legislation—for example, through laws to liberalize firing procedures, reduce litigation costs, and reduce severance pay—at least in countries where such legislation is particularly strict. However, even when these policies improve equity and efficiency, they are usually not Pareto-improving, since they tend to reduce the welfare of insiders. Thus the insiders may resist these policies either through the political process or through workplace actions.

Enfranchising policies can take various forms: vocational training programs and job counseling for the unemployed; employment subsidies, lower payroll taxes, or tax credits for low-productivity workers; employment vouchers for the long-term unemployed (Snower, 1994); profit-sharing schemes, whereby employees receive part of their remuneration as a share of profits (Weitzman, 1984); schemes to

convert wage claims into equity shares (Sinn, 1998); tax and regulatory policies to reduce barriers to the entry of new firms; and policies to reduce the occupational, industrial, and geographic coverage of union wage agreements. Without such enfranchising policies, power-reducing policies may simply turn some unemployed outsiders into working poor.

Since the insider-outsider theory emphasizes unemployment persistence rather than just changes in the equilibrium unemployment rate, the theory also points to the risks of pursuing policies that keep aggregate demand substantially below full capacity utilization of labor for long periods of time. In this sense, the insider-outsider theory has important implications for monetary and fiscal policy.

A final policy implication of the insider-outsider theory concerns the magnitude of required policy change. Timid labor market reforms, whereby policy parameters are changed by only small amounts, are likely to be ineffective in overcoming the hurdles of substantial labor turnover costs. The main reason is that substantial labor turnover costs give rise to substantial kinks in firms' labor demand curves, over which firms have no incentive to hire or fire. Furthermore, many of the lagged labor market adjustment processes generated by turnover costs are complementary to one another. Under these circumstances, there is a case for combining expansionary demand management with bold structural reforms to stimulate employment after periods of persistently high unemployment.

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