

IMF WORKING PAPER

© 1995 International Monetary Fund

This is a Working Paper and the author(s) would welcome any comments on the present text. Citations should refer to a Working Paper of the International Monetary Fund, mentioning the author(s), and the date of issuance. The views expressed are those of the author(s) and do not necessarily represent those of the Fund.

WP/95/63

INTERNATIONAL MONETARY FUND

Research Department

Institutional Structure and Labor Market Outcomes:
Western Lessons for European Countries in Transition

Prepared by Robert J. Flanagan¹

Authorized for Distribution by David T. Coe

July 1995

Abstract

Changes in economic systems provide a rare opportunity to redesign basic institutional structures in labor markets. This paper attempts to provide guidance for such institutional choice by drawing on the findings of recent labor market research in market economies on the links between institutional structure and labor market performance. After considering the suitability of research from market economies for the labor market problems faced by economies in transition from central planning, the paper considers the effects of alternative institutions for wage determination (collective bargaining structures and minimum wage and indexation legislation), employment security, income security, and active labor market policy.

JEL Classification Numbers:

J0, J3, J5, J6, P2, P5

¹The author is Professor of Economics at the Graduate School of Business, Stanford University. The paper was written while the author was a visiting scholar at the Research Department of the IMF. The views expressed in this paper do not necessarily represent those of the IMF or its member countries. This paper will be published in the forthcoming issue of *Staff Studies for the World Economic Outlook*.

	<u>Page</u>
Summary	iii
I. Introduction	1
II. Distinctive Features of Transition Labor Markets	2
III. Wage Determination	4
1. Collective bargaining	4
2. Minimum wages and indexation	9
3. Concluding comments	11
IV. Employment Security Regulation	12
V. Labor Market Policies	14
1. Unemployment insurance	14
2. Active labor market policies	16
VI. Conclusions	19

Summary

Changes in economic systems provide a rare opportunity to redesign basic institutional structures in labor markets. This paper attempts to provide guidance for such institutional choice by drawing on the findings of recent labor market research in market economies on the links between institutional structure and labor market performance. The paper establishes initially that the effects of institutional structure are not independent of their market environment. Of particular importance for transition economies is the fact that institutional structures that may have a benign impact in a market environment of low pay dispersion may thwart labor reallocation and generate structural unemployment in a market environment calling for high pay dispersion.

The remainder of the paper considers alternative institutional structures from this perspective. It considers wage determination institutions, focusing first on the relationship between collective bargaining structure and economic performance, concluding that decentralized structures are likely to be more advantageous for transition economies. Somewhat conflicting evidence on the effects of minimum wage laws is also discussed, along with evidence on their limitations as redistributive devices. The paper then examines the role of employment security regulations in market economies. There is little evidence of a major interference with labor reallocation, although such regulations appear to contribute to longer periods of unemployment.

A final section of the paper reviews the evidence on active and passive (that is, unemployment insurance) labor market policies. While there is aggregate evidence that countries that spend more on active policies by some measures have better labor market performance, studies of the effects of individual programs offer little guidance on how the money should be spent. Wage subsidies appear attractive in a full-information environment, but can produce stigmatization of disadvantaged workers in a regime of asymmetric information. The paper discusses ways in which unemployment insurance might be redesigned to reduce moral hazard problems.



I. Introduction

Slow growth of total factor productivity limited the economic achievements of centrally planned economies, and central planning itself produced many of the distortions that thwarted economic growth. Most observers presume that the substitution of market for planning processes should ultimately remove the distortions inherited from central planning, and in particular should produce improved labor allocation and effort. In contrast, the discussion of economic policy during the transition accords much less attention to an issue that occupies the research agenda of many western economists--the distortions and inefficiencies that may result from the institutional structure of labor markets in market economies. The outcome of this research is a conviction that labor market performance is not independent of the institutional structure governing pay determination and the regulation of employment relationships.

Changes in economic systems provide a unique opportunity to redesign basic institutional structures. The opportunity includes significant risks, however, since change is costly, and once chosen, institutions tend to remain frozen for long periods of time (North (1990)). Given the inertia and path dependence of institutions, a crucial challenge facing economies in transition is to develop institutional structures that facilitate or at least do not interfere with the labor market adjustments needed to improve economic performance. The challenge is all the more difficult because centrally planned economies in central and eastern Europe implemented much of their commitment to greater economic equality through administered wage structures and other benefits delivered through enterprises. The legacy of central planning makes a regime in which greater wage differentiation secures labor reallocation and related efficiency goals, while taxes and transfers secure distributional goals, more difficult to accept than in western market economies.

This paper attempts to provide guidance for such institutional choice drawing on research and evidence on the relationship between institutional structure and labor market performance from western market economies. The paper is primarily concerned with the economies in transition in central and eastern Europe, although much of the discussion may also be relevant to the Baltic countries and the other countries of the former Soviet Union. Unemployment has been the main performance indicator considered in the western research, and Section II considers whether this research is relevant to the different setting of transition labor markets--notably, the greater emphasis on labor reallocation. After concluding that the research findings are compatible with transition objectives, the rest of the paper examines the relationship between various institutional structures and labor market performance. Section III considers wage determination mechanisms--bargaining structure, minimum wages, and indexation. Section IV examines the effects of employment security regulations. Section V reviews alternative approaches to passive and active labor market policies. Conclusions and policy implications appear in Section VI.

II. Distinctive Features of Transition Labor Markets

An assessment of the potential role of institutional structures in transition economies must reflect differences in the labor market setting between transition economies and market economies. The key difference is the magnitude of the resource reallocation needed in transition economies in central and eastern Europe.¹ The inherited economic structure reflects the emphasis under central planning on production of goods over services and most intellectual work and, within the production sector, heavy industry over consumer goods. To support these preferences with appropriate human capital, planners also encouraged vocational training over most varieties of university education. The implementation of national wage structures reduced overall wage dispersion (Atkinson and Micklewright (1992)), although certain wage differentials were widened to encourage investments in vocational training and a reallocation of labor into heavy industry. Returns to university education fell drastically following the introduction of central planning (Adam (1984), Flanagan (1994b)). By the late 1980s the industrial structure and the distribution of human capital between the centrally-planned and market economies of Europe differed markedly.

As a consequence, most countries entering the transition process face three interrelated dimensions to the reallocation of labor. First, the transitions require large-scale reallocations of labor from the state to the private sector. Only some of this will occur through changing governance arrangements--the privatization process. Second, there will be major interindustry resource shifts away from heavy manufacturing industries emphasized by central planning toward consumer goods and services. Third, the first two changes should reduce the demand for workers with vocational education and increase the demand for workers with university education. Both the scale and the desired speed of these reallocations are large in comparison to the norm in market economies. Moreover, with slow prospective labor force growth, little of the reallocation is likely to occur through the job choices of new labor force entrants.

All of this requires sharp changes in the pattern of wage differentials inherited from central planning and implies more dispersed wage structures for transition economies. Initially, large wage differentials will be necessary to reverse the particular industrial preferences of central planners and to overcome historical biases against highly educated labor. Some of the increased wage differentiation will be transitory, however, as supply responses to larger differentials will eventually reduce subsequent

¹A survey of labor markets in transition economies is presented in Flanagan 1995.

wage dispersion, although not to the level under central planning.¹ Increased wage dispersion is already evident in eastern European labor markets. In the Czech and Slovak Republics, earnings inequality increased substantially between 1988 and 1992, with the most rapid earnings increases occurring in the upper deciles of the income distribution (Vecernik (1994)). Polish data reveal similar general patterns but provide more detail. Wage dispersion has increased mainly for white-collar workers and particularly for relatively high-paid white-collar workers in the private sector (Rutkowski (1994)). All indications are that the privatization process will produce increasing earnings inequality. The inherent tendency toward increasing wage dispersion and its role in the labor reallocation process in transition economies plays a crucial role in the subsequent assessment of the relationship between institutional structure and economic performance.

The increasing wage differentiation inherent in transition labor markets serves two purposes. First, it provides signals that facilitate the reallocation of labor from low productivity to high productivity sectors, a process that raises the aggregate productivity level. Second, with sufficiently flexible relative wages, and in the absence of constraints on labor mobility such as insufficient housing, little structural unemployment need emerge from the transition process. Much of this paper considers the interaction of greater wage dispersion with various labor market regulations, based on experience in western market economies.

The setting of industrialized market economies during the postwar period has been quite different, and this has been reflected in the labor market research emphasis in these countries. During the 1970s and 1980s, structural unemployment in Europe increased relative to unemployment in North America and Japan--countries with distinctly different labor market institutions. Labor market analysts soon discovered that the character of European unemployment differed as well. Most notably, a declining probability of exiting unemployment characterized most European labor markets, producing comparatively long unemployment durations. Labor market research turned to the relationship between institutional structure and unemployment persistence.

How useful are the findings of this research for the labor market problems facing transition economies? Would transition economies draw different conclusions regarding the consequences of alternative institutional structures depending on whether they were focusing on improving the reallocation of labor or reducing structural unemployment? The reallocation and structural unemployment objectives in fact merge, for

¹The initial size of wage differentials may be exacerbated by limitations on labor mobility. Although quit rates under central planning were at least as high as in most western market economies, the geographical dimension of labor mobility remains circumscribed by housing shortages that prevent most workers from ranging outside commuting distances from current residences. As a result, it seems likely that geographical wage differentials will be the last to disappear via supply adjustments.

institutions that thwart the reallocation of labor tend to produce structural unemployment. The key issue is whether labor market institutions prevent the adjustment of relative wages. If they do not, serious reallocation and structural unemployment problems are unlikely to arise, absent significant barriers to mobility. To the extent that institutions do prevent market-driven changes in relative wages, quantity responses dominate labor market adjustments, and structural unemployment emerges.

The corollary is that the effects of institutional structures are not independent of the market environment in which they operate. Regulations or other labor market institutions that have a benign impact in one environment (low market-driven pay dispersion) may thwart labor reallocation and produce structural unemployment in a different environment (high market-driven pay dispersion). Evaluation of the effects of alternative institutions must consider the environment in which they will operate. The growth of European unemployment since the 1970s illustrates this point. While some cross-country analyses show links between unemployment and labor market institutions, including bargaining arrangements, active labor market policies, and characteristics of unemployment insurance systems (Layard, Nickell, and Jackman (1991)), the rise in European unemployment over time cannot in general be explained by institutional change. Indeed, some institutional changes that occurred since the 1970s should have produced a reduction in unemployment. Instead, the development of market pressures for greater wage inequality interacting with pre-existing institutional structures appears to have contributed to the rise of unemployment.

III. Wage Determination

Collective bargaining and minimum wage and indexation legislation provide the main direct institutional influence on wage levels and structure. As such, the exact institutional arrangements may influence both the speed of labor reallocation and the amount of cyclical unemployment. The main issues of institutional design are discussed below.

1. Collective bargaining

Labor unions, which were little more than extensions of the Communist Party under central planning, have only recently been able to assume more traditional collective bargaining over wages and working conditions in transition economies. The former union organizations have been transformed or displaced, and the new organizations have begun collective bargaining, although the exact institutional arrangements continue to evolve. Five years into the transitions, union representation rarely reaches beyond

the state sector, however, and is far from complete there.¹ Since wages tend to be higher in the private sector than in the state sector, union members on average appear to earn less than nonmembers, but there is little evidence of significant union wage impact within the state and private sectors (Flanagan (1995)). Unions do not appear to have introduced significant wage distortions into labor markets during the early years of the economic transitions. Nonetheless, research in western market economies indicates that the relationship between collective bargaining and economic performance in the longer term may depend on the structure of collective bargaining.

Collective bargaining may produce three types of outcomes influencing general labor market performance. First, unions can be a source of allocational distortions to the extent that they alter competitive wage structures. Second, collective bargaining can have macroeconomic impacts through its effects on aggregate real wage levels, the adjustment of real wages in the face of unemployment, and the inertia of inflation (e.g., through indexation arrangements). Finally, collective bargaining contracts may regulate employment security, work rules, and other nonwage aspects of the employment relationship. None of these outcomes is likely to be independent of the structural features of industrial relations systems, and the wide variety of structures in place in western countries provides a variety of experience for assessing links between structure and performance. What lessons from research into the effects of collective bargaining institutions in market economies are most pertinent for transition economies?

A key characteristic of an industrial relations system is its bargaining structure--whether bargaining occurs at the level of the plant, firm, industry, or nation. During the postwar period, market economies have provided examples of both decentralized bargaining (e.g., at the plant and company levels as in the United States) and centralized bargaining (e.g., at the national level at times in some Scandinavian countries). Despite the range of bargaining structures that have survived in market economies, many economists have argued that some structures produce superior labor market performance. Most of these arguments rest on macroeconomic performance measures.

Bargaining structure influences wage pressure through its effects on the externalities of the collective bargaining process on the one hand and through union bargaining power on the other. When pressing wage demands under decentralized bargaining, for example, each union tends to consider only the interests of its members and to ignore the effect of the resulting price increases (for the output of the union's members) on other worker

¹For example, in the Czech Republic in November 1994, about 75 percent of employees of state enterprises but only 8 percent of workers in private firms were union members (Flanagan, (1995)). World Bank surveys of private manufacturing firms in other eastern European countries found little or no evidence of unions in the private sector (Webster (1993 a,b)).

groups. The real wage gains of each union's members are accompanied by modest real wage losses for workers who are unorganized or represented by other unions. In contrast, centralized bargaining arrangements should create incentives and means to internalize the externality by pursuing more moderate wage demands.¹

Working against this effect is the relationship between bargaining structure and bargaining power. To the extent that there are more substitutes available for output produced in decentralized bargaining units, the elasticity of labor demand will be greater and bargaining power lower than in centralized units. Combining these effects has led some to suggest a hump-shaped relationship between bargaining structure and power, with industry-level bargaining arrangements (such as found in many continental European countries) yielding the greatest wage pressures (Calmfors and Driffill (1988)).

While some authors have produced evidence supporting either the hump-shaped hypothesis or the superior performance of centralized bargaining, most of the evidence is crude, amounting to little more than correlations between rough measures of centralization or "corporatism" and measures of macroeconomic performance (e.g., unemployment and inflation). Moreover, these correlations have not remained stable over time. A cross-country regression of unemployment on several measures of labor market structure found a significant negative relation with bargaining coordination and a significant positive relation with union coverage for 1983-88 (Layard, Nickell, and Jackman (1991)). When the regression is run on 1993 data, however, the signs on these variables reverse and the statistical significance disappears (Forslund and Krueger (1994)). The fragility of estimated links between bargaining structure and macroeconomic performance reflects many factors, including severe measurement difficulties and inattention to the endogeneity of bargaining structures. Overall, empirical work has ignored important qualifications to basic arguments noted above. Virtually all of these qualifications go in the direction of raising doubts about the advantages of centralized bargaining structures.

First, the internalization of externalities that can produce wage restraint in centralized bargaining structures depends crucially on whether different unionized work groups are substitutes or complements. When they are complements, the original argument holds. When different work groups

¹Price spillovers are only one externality that may be internalized under centralized bargaining. Others include input price externalities (when wage increases in one bargaining unit raise the price of inputs to other sectors, reducing output and employment in other bargaining units), fiscal externalities (when wage increases in one unit reduce employment and the tax base, requiring tax increases elsewhere), and unemployment externalities (when unemployment resulting from wage increases in one sector make it more difficult for all workers to find a job). For further detail see Calmfors (1993) and Moene, Wallerstein, and Hoel (1993) and the references therein.

are substitutes, however, a wage increase by one decentralized union reduces the demand for its members while increasing the demand for substitutes represented by other unions--a consideration that would tend to moderate wage pressure. Under centralized bargaining, however, employment is redistributed within the bargaining unit rather than lost, and wage pressure increases. The advantage of centralized bargaining therefore depends on the pattern of union jurisdictions. Centralized bargaining will produce less wage pressure when unions establish a nationwide system of complementary jurisdictions. Otherwise, decentralized bargaining may be more advantageous. Recommendations concerning bargaining structure should consider the prevailing pattern of union jurisdictions.

Second, the international openness of an economy influences the macroeconomic consequences of different bargaining structures. Notably, the adverse evaluation of industry-level bargaining in a closed economy is tempered as an economy is opened to foreign trade. By providing a substitute for domestic production, import competition increases the elasticity of demand facing employers in industry-wide bargaining units and circumscribes their ability to pass on wages into prices. The higher risk of employment loss in the face of international competition should mitigate wage demands. At the same time, increased foreign competition may increase the wage pressures from centralized bargaining structures. As nominal wages increase, the weight of import prices will keep consumer prices from rising as fast as producer prices, with the result that the real consumption wages of union members will advance more rapidly than real product wages.

Third, experience in western countries has illustrated certain practical difficulties with the operation of so-called centralized bargaining systems. In most countries, the practical issue is: "At how many levels will collective bargaining occur?" In a decentralized bargaining system, bargaining will only occur at the lowest (firm or company) level. But centralized bargaining always includes intermediate (industry) or local bargaining over the "implementation" of the central agreement. When there are several levels of bargaining, lower levels rarely restrict themselves to distributing the central wage agreement; they also exercise their bargaining power to influence wage levels, producing wage drift. In the most centralized systems this is far from trivial, ranging from 30 to 60 percent in Scandinavian countries, for example (Flanagan (1990)).

A related issue concerns the relationship between bargaining structure and the scope of collective bargaining agreements. Central agreements tend to be skimpy. Bargainers tend to negotiate a set of issues that are common to all covered places of employment. Issues that tend to be unique to individual workplaces, such as work rules, safety, and technical change, are unlikely to be addressed. This too explains the presence of multiple levels of bargaining in purportedly centralized systems. Lower levels of bargaining emerge not only to implement (and possibly add to) the wage provisions of the central agreement, but also to address pressing issues on which the central agreement is mute. To the extent that these issues involve flexibility of work assignments and other factors influencing

productivity, the overall effect on labor costs may not be superior under centralized bargaining. In summary, substantial transactions costs can develop in centralized bargaining systems.

Increased global competition and tensions within centralized bargaining units in fact produced considerable decentralization of bargaining structures in western market economies during the 1980s and early 1990s (Hartog and Theeuwes (1993)). Notable decentralization occurred at both extremes of bargaining structures, as some Scandinavian countries abandoned centralized bargaining arrangements and as some industry-wide and multicompany arrangements in the United States gave way to additional company and plant level bargaining (OECD (1993)).

The fourth point pertains to the importance of the reallocation of the labor force in transition economies in central and eastern Europe. Narrow wage distributions often accompany centralized bargaining institutions.¹ Pay compression policies can only be reliably delivered by centralized bargaining arrangements that overcome the relative wage comparisons that inevitably enter decentralized collective bargaining. Among market economies, the relatively compressed wage structures in countries with centralized bargaining most closely resemble wage structures in the former Soviet bloc countries under central planning and in some cases are even less dispersed (Boeri and Kneese (1992)). Thus a further concern with centralized bargaining in transition economies is that it might retard adjustment of relative wage structures and hence the reallocation of labor. One can see this development in the experience of western market economies since 1980. Countries that had decentralized bargaining structures at the beginning of the period (e.g., the United Kingdom, the United States, Canada, Australia, and Japan) experienced substantial increases in earnings dispersion and small increases in unemployment in comparison to countries with more centralized structures (OECD (1994b), Vol. 1, p. 19).

There are important implications in this literature for the transition economies in central and eastern Europe. First, influencing the framework in which collective bargaining occurs is likely to be more useful for long-run economic performance than efforts to influence outcomes of the collective bargaining process. To date, transition economies have mainly adopted the latter approach through the application of incomes policies. Such policies have a poor record in market economies and appear particularly unsuitable for the purposes of the economic transitions (Flanagan (1994a)). Second, for transition economies, empirical evidence from western market economies is less important than developing collective bargaining structures that fit the economic context of each economy. This is partially because of the importance of relative wage adjustments in transition economies--an objective largely ignored in empirical studies in market economies--and partially because the evidence does not adequately capture how bargaining structures change in the face of changing economic circumstances.

¹Indeed, narrow wage dispersions have occasionally been proposed as indications of centralization (Freeman (1988)).

Forty years of central planning may incline transition economies toward corporatist bargaining arrangements that facilitate dialogue between the government and major economic interest groups. Several features of transition economies suggest that relatively decentralized bargaining structures will provide better long-run economic performance, however. To a large extent, the birth of new small private enterprises has led the transitions in central and eastern Europe. It is particularly important that the collective bargaining system permit the wage dispersion necessary to accommodate the considerable dispersion of productivity across these new business units. (This same consideration argues against legal rules extending the terms of collective bargaining agreements to firms not involved in the negotiations, a common practice in continental Europe.) Moreover, a major reorientation of international trade has accompanied the economic transitions. The expansion of trade with the West weakens the attractiveness of centralized bargaining structures, for reasons noted above. Evidence from western market economies also warns against the transactions costs of the multiple levels of bargaining that accompany so-called centralized bargaining systems.

2. Minimum wages and indexation

Most market economies have established statutory minimum wages covering some (but usually not all) groups in the labor force. Although generally motivated as an anti-poverty policy, economic analysis has suggested a long list of potential impacts of minimum wages that would tend to counter any effects such legislation might have to reduce poverty in competitive labor markets. Minimum wages may reduce employment, induce substitution between covered and uncovered employment categories, raise unemployment, reduce labor force participation, reduce training opportunities for unskilled workers (by precluding the use of training wages sufficiently low to cover the costs of general training), and raise prices. In addition, the correlation between low wages and low family income may be weak: in the United States, many workers subject to the minimum wage are youth from families with incomes well above the poverty line (Gramlich (1976)). In short, limited distributional benefits appear to be purchased with significant allocational costs and deadweight losses. Only in monopsonistic labor markets would a carefully set minimum wage raise both wages and employment.

Empirical research has largely focused on the employment effects of minimum wages, drawing on evidence from several countries. Time series studies using data for the entire economy have documented the negative employment effects of increases in the minimum wage and extensions of coverage (Brown, Gilroy, and Kohen (1982)). Recently, more disaggregated studies in the United States and the United Kingdom have found quite different employment impacts, however. Some studies have examined how firms in low-wage, seemingly competitive industries respond to minimum wage increases that require a substantial adjustment in their wage scales. Contrary to the predictions of the competitive model, (a) employment appears to increase in the firms experiencing the largest statutory shock to their wage structure and (b) most employers do not adopt a special subminimum wage

that is available for teenage employees, whose productivity is presumably relatively low (Katz and Krueger (1992), Card and Krueger (1994)). Studies contrasting teenage employment changes between states in the United States that increase their minimum wage and states that do not also fail to find negative employment effects (Card (1992 a)). Examining policy change in the other direction, a study found that the failure of British Wage Councils to raise minimum wages as rapidly as average wages during the 1980s did not increase adult employment and may have reduced it in a few sectors (Machin and Manning (1994)).

The results from these studies have not been fully reconciled with the time-series findings. Not all of the adjustments included in the time-series measurements are captured in the industry case studies, for example. The effects of higher minimum wages on closing firms or discouraging new entrants into the industry are generally not captured. Nor is the effect of the policy on school enrollment (Neumark and Wascher (1994)) or substituting part-time for full-time employment opportunities--an empirically important impact in some past studies (Gramlich (1976)). The studies also vary in their ability to control for non-minimum wage influences on the employment of low-wage groups. Finally, it is difficult to assess the role of non-compliance in these results. While prior work has shown noncompliance to be empirically important, the case studies have generally relied on wage data provided by managers, who are unlikely to report clearly illegal wages. Nonetheless, these studies suggest that the effects of moderate changes in minimum wages on the employment levels may be much smaller than originally believed, perhaps reflecting the presence of employer monopsony power in labor markets with limited information.

Most minimum wage policies place a floor under the nominal wages of covered workers. The real effects of such policies are therefore "repealed" over time by inflation. Some countries effectively place a floor under real wages by indexing the nominal minimum wage to a measure of inflation, thereby preserving both the higher relative wage for low-paid workers and its real effects over time. In countries with high and variable inflation rates, a broader range of wages may be indexed to inflation via collective bargaining agreements or political action. Such wide-ranging efforts to protect the living standards of workers can have undesirable macroeconomic consequences, however.

The effects of mandated indexation depend on the nature of inflation. Inflation resulting from demand shocks does not imply downward real wage adjustments, and widespread indexation of wages does not adversely effect the adjustment of the economy. When inflation results from supply shocks, as in the case of transition economies in eastern Europe, real wages should fall. Efforts to preserve real wages, whether through collective bargaining or widespread wage indexation, will produce a wage-price spiral and increased unemployment. Experience in Italy during the 1970s and 1980s provides an example. The adverse consequences are strongest for indexation arrangements linking wages to a consumer price index. Indexation linking wages instead to producer prices would connect wages more directly to profits, thereby mitigating the effects discussed above. The lessons of

past experience with the effects of indexation during the supply shocks of the 1970s, as well as lower inflation rates in recent years, has resulted in a relaxation of indexation arrangements in most industrial countries.

3. Concluding comments

This section has considered the effects of institutions that influence the level and dispersion of wages. The impact of institutionally-determined wage floors, whether established by collective bargaining or by minimum wage legislation, is likely to depend on the economic environment to which it is applied. Wage floors will have more adverse effects when they are established in real rather than nominal terms, and when market forces call for increased wage dispersion than when they call for low wage dispersion. For reasons discussed in Section II, transition economies require greater wage differentiation, so that the potential for harmful effects from wage floors is great. To date the potential has not been realized in the countries of central and eastern Europe, where the impact of unions on wages has been small, and where most countries have set minimum wages well below average wages, have avoided rigid indexation arrangements, and have allowed the minimum wage to fall as a percent of average wages to levels well below those typical of industrialized market economies.

In contrast, the transition process in the eastern lander of Germany was accompanied by a commitment, negotiated by the West German unions, to equalize wages between the east and west parts of Germany over a brief period, despite large productivity differences between the two regions. A recent analysis of employment adjustments in two-digit manufacturing industries in the eastern and western parts of Germany between 1991 and 1993 indicates that high-wage policies are very costly in transition economies. Fitzroy and Funke (1995) demonstrate that employment elasticities are higher in the eastern part of Germany, and that employment losses from the high-wage policy were largest for unskilled workers in the east.

Central planning regimes appeared to deliver income inequality through narrow administrative wage structures. Yet, support of institutional arrangements permitting greater wage dispersion and flexibility need not abandon equity objectives. Government tax and transfer programs offer more powerful mechanisms of redistribution, and recent research indicates that they offer more efficient means of redistribution as well (Saint-Paul (1994)). In contrast, the effect of minimum wage regulation and other pay compression policies on the distribution of individual earnings is to a considerable extent undone by the mobility of individuals through the earnings structure. Changes of employers, promotions, layoffs, and variation in effort under incentive payments systems all tend to rearrange the relative earnings of individuals. With so many workers changing their relative earnings position during even short periods of time, policy-induced changes in the earnings structure are not powerful influences on overall equality.

IV. Employment Security Regulation

Dismissal legislation may provide procedures for addressing arbitrary dismissals that lack good cause and/or dismissals in response to economic conditions. This section considers experience with the regulation of economic dismissals. The discussion focuses on labor market effects of such legislation. Statutory dismissal legislation exists in most industrialized economies. Dismissal statutes most frequently require advance notice of economic dismissals and may also require severance payments. Although requirements vary across countries, dismissal costs are generally highest in southern Europe and for white-collar workers. Statutory severance payments are compensatory, requiring salary payments ranging up to one year for blue-collar workers and two-years for white collar workers. Penalties for unfair dismissals are somewhat higher, but do not exceed four years salary (OECD (1993), Chapter 3).

Outside of Europe, dismissal legislation is less common. In countries without statutes, such as the United States, similar protections may arise through two methods. First, collective bargaining contracts often include advance notice or severance payments similar to European legislation. Second, judicial decisions can set standards for wrongful dismissals through reinterpretations of the Common Law (Mendelsohn (1990)). In the United States, the financial consequences of wrongful dismissals can be more severe than in Europe, since the courts permit punitive damages and place less stringent limitations on the period of compensatory damages than European statutes.

Dismissal regulations may retard but not stop the release of workers from declining firms and industries. The effect on the reallocation of labor input should be more muted, if it exists at all, since variations in hours per employee can offset lack of variation in the number of employees. Relative to an unregulated labor market, dismissal costs should produce larger reductions in average weekly hours in declining sectors and larger increases in average weekly hours in expanding sectors, tending to offset the employment transfers inhibited by dismissal regulations. The initial response to changes in demand is a change in hours. If the change in demand is eventually perceived as permanent, employment will subsequently adjust. Eventually, the total adjustment in labor input is approximately the same in countries with and without formal dismissal regulations (Houseman and Abraham (1994)). That is, the regulations tend to encourage work-sharing, rather than layoff regimes. Moreover, with sufficiently rapid labor force growth, new labor force entrants can compensate to some extent for lack of interindustry transfers.

The relationship between dismissal rules and labor reallocation in advanced market economies has received little empirical attention. The study that addresses the link to reallocation most explicitly finds only weak effects, however, tending to confirm the foregoing analysis. Burgess (1994) develops several measures of speed of labor adjustment at the two-digit industry level (including the cross-industry variance of employment growth, the deviation between actual and equilibrium employment,

and the persistence of employment disequilibrium), but most are not significantly related to the strength of employment protection regulations. (The study does not control for other factors that might be influencing the cost or speed of adjustment during the period, however.) More broadly, several analyses of European labor markets (reviewed in Flanagan (1987)) found no indication of changing mismatch between the structure of job vacancy and unemployment rates during periods of change in dismissal regulations.

Dismissal restrictions can reduce the overall level of employment and alter the duration structure of unemployment, however. By raising the cost of employment, dismissal regulations will tend to reduce the level of employment (while increasing the cyclical variance in weekly hours), and there is some rough evidence that higher severance pay requirements are associated with lower employment-population ratios (Lazear (1990)). The effect on unemployment is theoretically ambiguous, because in raising the cost of dismissals (a flow into unemployment), the legislation also discourages hiring (a flow out of unemployment). That is, dismissal regulations tend to raise the employment security of the employed, and reduce the employment prospects of those who are not employed. Whatever the effect on overall unemployment, the increased reluctance of employers to hire new workers contributes to longer unemployment durations, which can have detrimental effects on the quality of the labor force. This relationship is confirmed in an OECD study, which found that countries requiring relatively high individual severance pay tended to have relatively high long-term (greater than one year) unemployment rates (OECD (1993)).

The recent history of dismissal legislation in OECD countries cautions against simple extrapolations of cross-section evidence to time-series developments. Since 1980, European countries that have altered their dismissal legislation have tended to lower the protections accorded workers. During this same period, European structural unemployment has increased. In the United States, judicial restrictions on terminations increased during the 1980s, while the equilibrium unemployment rate apparently fell. In broad outline, these observations are the opposite of the implications drawn from cross-country analyses.

To summarize, research on western labor markets indicates that employment security regulations (1) influence both layoff and hiring behavior, (2) have an ambiguous effect on the level of unemployment, (3) influence the character of unemployment, by contributing to longer durations of unemployment, and (4) influence the method rather than the scope of adjustments of labor input to demand shocks. In contrast, the key issue for the transition process is whether dismissal legislation inhibits the reallocation of labor. The scale of reallocation required in mature market economies is much smaller than in transition economies in central and eastern Europe, where in principle even small regulatory effects could retard the recovery of productivity. Interindustry employment transfers have been a key source of private-sector growth during the early stages of the transitions. The size of the labor force has declined, and private firms have expanded mainly by hiring employees from state enterprises,

rather than from the pool of unemployed. (This may reflect a tendency to associate the unemployed with low productivity.) There is evidence that private-sector employers in the Czech Republic pay workers with recent unemployment experience less than they pay other workers with observationally equivalent human capital, (Flanagan (1994b)). As long as the private sector grows less rapidly than the state sector declines, however, it is hard to view dismissal legislation as a restraint on the reallocation of labor. Western research on this issue is slim, but tends to cast doubt that employment security policies are a major barrier to labor reallocation.

V. Labor Market Policies

Market economies pursue both "active" and "passive" labor market policies. Passive measures, such as unemployment insurance and incentives for early retirement, provide a cushion or safety net to support the unemployed during periods of job search or to facilitate withdrawal from the labor force. Active measures seek to raise the odds of reemployment by improving the matching process, raising the productivity of the jobless, or subsidizing the employment of low-skill workers. With no official unemployment under central planning, the economic transitions began without even rudimentary job-matching institutions and social safety nets, except those still provided by large state-owned enterprises. By 1992-93, most transition economies in central and eastern Europe had higher unemployment rates than most OECD countries, but spent smaller percentages of their GDP on labor market policies. Moreover, public expenditures on labor market policy were concentrated on passive measures (OECD (1993)). This section considers lessons from research in market economies for the development of unemployment insurance systems and active labor market policies in transition economies.

1. Unemployment insurance

Unemployment insurance (UI) exists in virtually all market economies to address the problem of risk aversion--a preference for a certain income stream over an uncertain income stream for a given expected income. Labor markets are notorious sources of income uncertainty, but the efficiency gains from UI systems are to some extent countered by the efficiency costs of moral hazard. UI systems reduce the cost of unemployment and workers can adopt behavior that influences the amount of unemployment that they incur. More specifically, UI effectively raises the reservation wage of unemployed workers and with it their wage aspirations. With a higher reservation wage, the unemployed reject more low-wage job offers and search longer before

accepting a job.¹ As a result, UI should raise unemployment durations as well as the wages of jobs ultimately accepted by covered workers. The existence of UI may also increase wage pressure in collective bargaining, by reducing the economic losses of unemployment.

The scope of the potential moral hazard problem is governed by several parameters of a UI system. The replacement ratio--the fraction of prior earnings replaced by UI--places a floor under the reservation wage, and benefit duration rules establish the effective period that the floor is in place. Eligibility rules determine how much of the work force is subject to UI protection and incentives, thereby influencing the impact on aggregate unemployment.

After almost two decades of active research, there is now considerable evidence of the relationship between parameters of the UI system, unemployment, and wages for North America and Europe.² Unemployment benefits clearly extend the duration of unemployment by increasing the reluctance of the unemployed to accept a job. Most estimates of the elasticity of the expected duration of unemployment with respect to the replacement ratio fall in the range of 0.2 to 0.9. There is evidence that unemployment was more sensitive to the design of UI systems in the early 1990s than in the 1980s (Forslund and Krueger (1994)). Moreover, the unemployment of younger workers and low-skill workers seems particularly responsive to changes in UI benefits. Related to this are findings in the U.S. data that job acceptance rises dramatically just as unemployment benefits expire. (Most U.S. studies also find that more generous UI benefits raise the reemployment wage.) Long duration unemployment itself discourages employment through depreciation of skills, reduced effectiveness of job search, and hiring reluctance by employers.

These findings have two implications for transition economies trying to cushion the blow of unemployment. The first is that relatively high replacement ratios, long benefit durations, and broad eligibility rules will produce higher unemployment. The second is that because of the different labor market environment in transition economies, the elasticity of unemployment with respect to UI parameters may be larger than estimated by research on market economies. Ultimately the moral hazard costs of a UI system will depend on the interaction between the parameters of the system and the economic environment. Periods of growing wage dispersion should increase the unemployment produced by UI, as an increasing fraction of wage

¹UI may therefore interact importantly with other policies. In economies in which generous UI benefits establish high reservation wages, reducing wage floors established by collective bargaining or minimum wage legislation may have less effect on employment than in economies with less generous UI benefits.

²The research is too voluminous to cite, but extensive reviews of the evidence can be found in Atkinson and Micklewright (1992), Layard et al. (1991), and Bjorklund and Holmlund (1991), from which material in this paragraph is freely drawn.

offers are rejected by the unemployed because they fall below the reservation wage.

How can transition economies design unemployment compensation systems that address the demand for insurance while minimizing the costs of moral hazard? One approach is to limit the period of joblessness for which benefits are collected. Benefits are available for much shorter periods in the United States than in Europe, for example, and the incidence of long-duration unemployment is much lower in the United States. As noted above, this creates a notch that tends to concentrate job acceptance at the expiration date, however.

An alternative approach to stimulating greater search intensity is to combine UI benefits with a reemployment bonus. The amount of the bonus could be fixed (for example, some multiple of a job-seeker's weekly unemployment insurance payment) or could decline with the duration of unemployment. Field experiments of the effects of a fixed bonus held in three states of the United States found that such bonuses reduce the average spell of insured unemployment and hence UI payments. The magnitude of the effect depends on the size of the bonus, and the smallest experimental bonuses produced no effect. For more generous bonuses, reduced unemployment duration ranged from one-half week to over one week. The evidence on the net benefits of a reemployment bonus policy to the UI system is more mixed, however. In one state, UI payments were reduced by more than the direct and administrative costs of the reemployment bonus program (Woodbury and Spiegelman (1987)), but in two others the net benefits were negative because the bonus produced much smaller reductions in the spells of insured unemployment (Decker and O'Leary (1994)). The financial shortfall was modest, however, and net social benefits may well be positive when reduced skill depreciation and other detrimental effects of long-term unemployment are considered.

A third proposal for encouraging unemployed job search would replace unemployment benefits with a negative income tax that is conditional on job search (Snower (1995)). This proposal improves search incentives, because workers who find and accept jobs would lose only part of their negative income tax payments in contrast to losing all of their UI benefits. By targeting low income directly, rather than one of its causes, the negative income tax also provides a more efficient approach to income redistribution. To date, no western country has adopted this approach, so there is no evidence on its effects.

2. Active labor market policies

The goals of active labor market policies, which include public employment services, labor market training, youth employment measures, subsidized private employment, job creation in the public or nonprofit sectors, and vocational rehabilitation and work for the disabled, are to raise skills and improve job matching in the labor market. In principle, public investment in active labor market policy is an attractive approach to facilitate the reallocation of labor and reduce structural unemployment in

transition economies. Unlike some of the institutions discussed above, active labor market policies are unlikely to interfere with the adjustment of relative wages (although to the extent that such programs provide an alternative to unemployment they may stimulate more upward pressure on wage levels). Indeed, if classical market mechanisms for reallocating labor worked sufficiently rapidly, there would be little case for active labor market policies. In principle, such policies can supplement the role of relative wage changes by accelerating the quantity responses to wage signals.

In practice, active labor market policies work through a variety of channels, and like other policies can have unintended side effects. The potential effects are sufficiently diverse and complicated that the net policy impact cannot be predicted a priori (Calmfors (1994)). Virtually all industrialized market economies have experimented with active labor market policies over the past 30-35 years, and there is considerable cross-country variation in both the ratio of active to passive policies and the mix of active policies. The research strategy in the "macro" evaluations is to relate international variations in public expenditures on active labor market policy to international variations in macroeconomic performance. Unfortunately, these studies reach no consensus on the effects of active labor market policies. Some studies find that an increase in such expenditures reduces unemployment by more than the amount of program participation, resulting in a net increase in employment (Layard et al. (1991)). Others find the estimates of policy influence are quite fragile. For example, Forslund and Krueger (1994) find that the significant negative relationship between active labor market policy expenditures and unemployment reported by Layard et al. (1991) for 1983-88 was positive (but insignificant) for 1993. Moreover, an OECD study found that the level of expenditure on active labor market policy had a negative effect on employment, although employment appeared to adjust more rapidly to output changes in countries with relatively high expenditures on active labor market policy (OECD (1993)). Most of the macro evaluations are subject to potentially serious methodological problems.¹

Even if there were a consensus that expenditures on active labor market policies tend to produce favorable macroeconomic outcomes, practical policy questions remain. In particular, there are many varieties of active labor market policy. How should money for active labor market policy be spent? Which policies in the active labor market policy arsenal produce superior outcomes? The macro evaluation studies will not answer such questions. One must turn instead to the "micro" evaluations of individual programs. Such evaluations now constitute a modest cottage industry, whose size tends to be inversely related to the scale of active labor market policy expenditures in a country.

¹The cross-country studies generally do not address the endogeneity of active labor market policy expenditures. Since these typically increase with unemployment, the appropriate interpretation of the correlations between policy expenditures and unemployment is somewhat uncertain.

The large micro-evaluation literature is not easily summarized, because its results are so diverse. Despite the variance in individual studies, one review of U.S. policies noted a tendency for programs to work better for women and less educated individuals but also found little evidence of effective employment and training policies for seriously disadvantaged males (Haveman and Hollister (1991)). Reviews of the few Swedish evaluations of training programs conclude that there is little evidence of the effectiveness of government training programs (Bjorklund (1991), Forslund and Krueger (1994)). In summary, micro-evaluations of labor market policies in western market economies do not support a reliable prediction that public training programs will improve the earnings and/or employment prospects of the unemployed.

In transition economies, this is also likely to be true of the vocationally-oriented training that has comprised many programs in market economies. As noted earlier, these economies have entered their transitions with an excess supply of vocational training. A major task is to increase the proportion of the labor force with a university education--a task for the formal education system more than active labor market policy.

Wage subsidies appear to be an attractive policy alternative to training and/or job matching in a full-information labor market, for by driving a wedge between the wage employers pay and the wage workers receive, subsidies can increase employment. Moreover, subsidy programs can be targeted on particular groups, such as new entrants to the labor force (to provide work experience and on-the-job training) and/or on the long duration unemployed (to prevent skill depreciation). Experience with wage subsidies in market economies also illustrates certain behavioral responses that can undermine the overall effectiveness of active labor market policies, however. These (and other) programs contain deadweight losses to the extent that some people hired under the program would have been hired without it. In addition, employers clearly face financial incentives to substitute members of targeted groups for nontargeted groups. While deadweight losses and substitution effects are often ignored in evaluation studies, when considered, they tend to be large.¹

Evidence from the United States also indicates that the effect of programs depends on the information structure of labor markets. Subject to deadweight losses and substitution effects, wage subsidies should theoretically provide more jobs in a full-information world. When employers are imperfectly informed about a worker's productive potential, however, workers with superior abilities have an interest in signalling their superiority in a credible manner--that is, in a way that would be more costly for less-qualified workers to imitate. Remaining outside labor market programs can provide such a signal. In an environment of asymmetric information, high-quality members of a targeted group may effectively signal

¹In a review of the international evidence, Calmfors (1994) reports combined effects of deadweight and substitution losses of approximately 70-90 percent of the total cost of subsidy programs for several countries.

their quality by remaining outside a wage subsidy program--an option that is not available to low-quality workers, who would be subject to dismissal once their productivity was observed. Those who participate in the programs are effectively stigmatized as low-quality workers. This is a serious practical concern in some wage subsidy programs. Employer participation in targeted wage subsidy programs in the United States has been low, for example, and there is evidence that employers preferred to hire unsubsidized workers.¹

One lesson of the various behavioral responses to active labor market policies is that design features may have a crucial influence on program impact. Many supporters of active labor market policies believe that targeting policies on specific groups raises the effectiveness of the policies, for example, but with asymmetric information, targeting may harm the employment prospects of groups that need help by stigmatizing the targets. It may be more effective to provide wage subsidies directly to employers (rather than giving workers subsidy vouchers), but targeting the groups for which a subsidy can be used tends to raise the signalling issue again.

With the low level of involuntary labor market transitions under central planning, eastern European countries had little need for the labor market policy apparatus common to most western industrial countries. The transition from central planning has produced a greater emphasis on passive over active labor policies than is typical of mature market economies, although traditional discussions of labor market policy often presume that active labor market policies are more likely to facilitate the labor reallocation required in transition economies. Experience in market economies reviewed in this section suggests that the ratio of passive to active labor market policy expenditures may be less important than features of policy design. Passive policies that support the unemployed without providing strong incentives to seek and accept work are not well-suited for the transition. Yet, effective job-seeking incentives clearly can be embedded within passive policies. At the same time, evaluations of active labor market programs in market economies provide little evidence that they have fulfilled their promise in practice. Moreover, the effectiveness of each approach to labor market policy is limited in conditions of deficient demand, when the problem is one of insufficient job vacancies rather than matching the unemployed to unfilled vacancies.

VI. Conclusions

Transition economies face a relatively short window of opportunity to establish new institutional forms, which once in place are slow to change. The long-run purposes of the transitions would be better served if the development of long-run institutional structures that contribute to good labor market performance were encouraged over the implementation of

¹For a more extended discussion of the evidence and the consequences of asymmetric information in labor markets, see Flanagan (1993).

short-run wage restraint policies that actually interfere with the objectives of the transitions and have a poor history in western labor markets.

Unfortunately, research in industrialized market economies offers an unwelcome message. Efforts to provide the level of social welfare and low pay differentiation that was customary under central planning through direct labor market interventions will thwart the needed reallocation of labor resources and produce relatively high equilibrium unemployment. The unintended side effects of labor market interventions are particularly severe when market conditions dictate wide pay dispersion. Labor market adjustments in the transition economies in central and eastern Europe would be better served if equity objectives are pursued through general tax and transfer policies rather than through labor market interventions.

Of the specific institutional structures reviewed, the conditions facing transition economies appear to provide a case for relatively decentralized bargaining units. Minimum wages appear to be a particularly weak redistributive policy with efficiency costs that remain uncertain after 45 years of spirited research. There is a clear danger in placing a floor under wages in economies whose markets require greater wage differentiation, but thus far the floors established in transition economies have been well below the floors found in market economies. Employment security regulations appear to have a minor impact on the reallocation of labor input, but contribute to long unemployment durations. The evidence on active labor market policies from industrialized market economies is very mixed and tends to support the conclusion that they are more promise than performance thus far. Passive labor market policies do not directly encourage skill development and are subject to moral hazard. However, the redesign of such policies can reduce the moral hazard problems.

References

- Adam, J., *Employment and Wage Policies in Poland, Czechoslovakia and Hungary Since 1950* (New York: St. Martin's Press, 1984).
- Atkinson, A. and J. Micklewright, *Economic Transformation in Eastern Europe and the Distribution of Income* (Cambridge, Massachusetts: Cambridge University Press, 1992).
- Boeri, T. and M. Keese, "Labour Markets and the Transition in Central and Eastern Europe," *OECD Economic Studies*, No. 18 (Paris, France: Spring 1992).
- Bjorklund A., "Comment on Havemann and Hollister," in A. Bjorklund, R. Haveman, R. Hollister, and B. Holmlund, ed., *Labour Market Policy and Unemployment Insurance* (Oxford: Clarendon Press, 1991).
- Bjorklund, A. and B. Holmlund, "Unemployment Insurance in Sweden," in A. Bjorklund, R. Haveman, R. Hollister and B. Holmlund, *Labour Market Policy and Unemployment Insurance* (Oxford: Clarendon Press, 1991).
- Brown, C., C. Gilroy, and A. Kohen, "The Effect of the Minimum Wage on Employment and Unemployment," *Journal of Economic Literature* (June 1982), pp. 487-528.
- Burgess, S., "The Reallocation of Employment and the Role of Employment Protection Legislation," Centre for Economic Performance Discussion Paper No. 193 (April 1994).
- Calmfors, L., "Centralisation of Wage Bargaining and Macroeconomic Performance: A Survey," *OECD Economic Studies*, No. 21 (Paris, France: 1993), pp. 161-91.
- _____, "Active Labour Market Policy and Unemployment: A Framework for the Analysis of Crucial Design Features," *OECD Labour Market and Social Policy Occasional Paper No. 15* (Paris, France: 1994).
- _____ and J. Driffill, "Bargaining Structure, Corporatism, and Macroeconomic Performance," *Economic Policy*, Vol. 3 (1988), pp. 13-62.
- Card, D. (1992a), "Using Regional Variation in Wages to Measure the Effects of the Federal Minimum Wage," *Industrial and Labor Relations Review*, Vol.46 (October), pp. 22-37.
- _____ (1992b), "Do Minimum Wages Reduce Employment? A Case Study of California 1987-89," *Industrial and Labor Relations Review*, Vol. 46, pp. 38-54.
- _____ and A. Krueger, "Minimum Wages and Employment: A Case Study of the Fast Food Industry in New Jersey and Pennsylvania," *American Economic Review*, Vol. 84, No. 4 (September 1994), pp. 772-93.

- Decker P., and C. O'Leary, "Evaluating Pooled Evidence from the Reemployment Bonus Experiments," W.E. Upjohn Institute Staff Working Paper No. 94-28 (July 1994).
- Fitzroy, F. and M. Funke, "Skills, Wages and Employment in East and West Germany," IMF Working Paper 95/41 (Washington D.C.: January 1995).
- Flanagan, R.J., "Labor Market Behavior and European Economic Growth," in R.Z. Lawrence and C.L. Schultze, eds., *Barriers to European Growth: A Transatlantic View* (Washington D.C.: Brookings Institution, 1987).
- _____, "Centralized and Decentralized Pay Determination in Nordic Countries," in L. Calmfors, ed., *Wage Formation and Macroeconomic Policy in the Nordic Countries* (Oxford: Oxford University Press, 1990).
- _____, "Can Political Models Predict Union Behavior?" in R.J. Flanagan, K.O. Moene, and M. Wallerstein, eds., *Trade Union Behaviour, Pay Bargaining, and Economic Performance* (Oxford: Clarendon Press, 1993).
- _____, (1994a), "Labor Market Responses to a Change in Economic System," *Proceedings of the World Bank Annual Conference on Development Economics*, pp. 405-25.
- _____, (1994b), "Were Communists Good Human Capitalists?" (June).
- _____, "Wage Structures in the Transition of the Czech Economy," IMF Working Paper No. 95/36 (Washington D.C.: March 1995), and *IMF Staff Papers*, forthcoming.
- Forslund, A. and A. Krueger, "An Evaluation of the Swedish Active Labor Market Policy: New and Received Wisdom," National Bureau of Economic Research Working Paper No. 4802 (Cambridge, Massachusetts: 1994.)
- Freeman, R. "Labor Market Institutions and Economic Performance," *Economic Policy*, Vol. 3 (1988), pp. 64-80.
- Gramlich, E. "Impact of Minimum Wages on Other Wages, Employment and Family Incomes," *Brookings Papers on Economic Activity*, (1976: 2), pp. 409-62.
- Hartog, J. and J. Theeuwes, *Labour Market Contracts and Institutions: A Cross-National Approach* (North Holland, 1993).
- Haveman, R. and R. Hollister, "Direct Job Creation: Economic Evaluation and Lessons for the United States and Western Europe," in A. Bjorklund, R. Haveman, R. Hollister and B. Holmlund, eds., *Labour Market Policy and Unemployment Insurance* (Oxford: Clarendon Press, 1991).
- Houseman, S. and K. Abraham, "Labor Adjustment Under Different Institutional Structures," Working Paper 94-26, W.E. Upjohn Institute for Employment Research (April 1994).

- Katz, L. and A. Krueger, "The Effect of the Minimum Wage on the Fast-Food Industry," *Industrial and Labor Relations Review*, Vol. 46 (October 1992), pp. 6-21.
- Layard, R., S. Nickell, and R. Jackman, *Unemployment: Macroeconomic Performance and the Labour Market* (Oxford University Press, 1991).
- Lazear, E., "Job Security Provisions and Unemployment," *Quarterly Journal of Economics* (February 1990).
- Machin, S. and A. Manning, "The Effects of Minimum Wages on Wage Dispersion and Employment: Evidence from the U.K. Wage Councils," *Industrial and Labor Relations Review*, Vol. 47 (January 1994), pp. 319-29.
- Mendelsohn, S., "Wrongful Termination Litigation in the United States and its Effect on the Employment Relationship," OECD Labour Market and Social Policy Occasional Paper No. 3 (Paris, France: September 1990).
- Moene, K.O., M. Wallerstein, and M. Hoel, "Bargaining Structure and Economic Performance," in R.J. Flanagan, K.O. Moene, and M. Wallerstein, eds., *Trade Union Behaviour, Pay Bargaining, and Economic Performance* (Oxford: Clarendon Press, 1993).
- Neumark, D. and W. Wascher, "Minimum Wage Effects on Employment and School Enrollment," National Bureau of Economic Research Working Paper No. 4679 (Cambridge, Massachusetts, March 1994).
- North, D.C., *Institutions, Institutional Change, and Economic Performance* (Cambridge University Press, 1990).
- OECD (1993, 1994a), *Employment Outlook*, Organization for Economic Cooperation and Development (Paris, France: July).
- _____ (1994b), *The OECD Jobs Study*, Organization for Economic Cooperation and Development (Paris, France).
- Rutkowski, J., "Changes in Wage Structure and in Returns to Education During Economic Transition: The Case of Poland," Center for International Studies (Woodrow Wilson School, Princeton University: New Jersey, 1994).
- Saint-Paul, G., "Do Labor Market Rigidities Fulfill Distributional Objectives?: Searching for the Virtues of the European Model," *IMF Staff Papers*, Vol. 41 (Washington D.C.: December 1994), pp. 629-42.
- Snower, D.J., "Unemployment Benefits Versus Conditional Negative Income Taxes," *IMF Working Paper* (forthcoming 1995).
- Vecernik, J., "Changing Earnings Inequality Under the Economic Transformation: The Czech and Slovak Republics, 1984-92," Institute of Sociology, Academy of Sciences, Prague (1994).

Webster, L.M. (1993a), "The Emergence of Private Sector Manufacturing in Hungary: A Survey of Firms," World Bank Technical Paper 229 (Washington D.C.).

_____ (1993b), "The Emergence of Private Sector Manufacturing in Poland: A Survey of Firms," World Bank Technical Paper 237 (Washington D.C.)

Woodbury, S. and R. Spiegelman, "Bonuses to Workers and Employers to Reduce Unemployment: Randomized Trials in Illinois," *American Economic Review* (September 1987), pp. 751-69.