

**WAGES AND WAGE POLICIES IN MARKET ECONOMIES:  
LESSONS FOR CENTRAL AND EASTERN EUROPE**

**Robert J. Flanagan**

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## INTRODUCTION

The value of work is not inherent in workers, but depends on where they work and their level of performance. Workers will be more productive in some occupations, industries, and firms than in others, and most workers also have considerable control over the productivity of their work hours. All economic systems interested in maximising output thus face the problem of devising mechanisms for allocating workers to the sectors where their potential productivity is highest and for eliciting high levels of performance within organisations.

Market economies are notable for allowing the incentives that solve the allocation and performance problems to develop and operate with comparatively limited state intervention. Market processes generally determine the structure of incentives that solve the allocation problem, while organisations generally devise incentives to address the performance problem. Superficially, labour markets **also** seem to operate in most centrally planned economies (CPEs). Administrative assignment plays a small role in matching workers to jobs, quit rates reach or exceed levels found in market economies, and job changes appear responsive to prevailing incentives (Vodopivec, 1990, pp. 9-10). The problem in these economies is with the structure of the prevailing incentives.

This paper reviews theory and evidence on how market economies solve the labour allocation and Performance problems and draws lessons for the economic transitions in former **CPEs**. The first **two** sections of this paper address the role of wages in achieving an efficient allocation of labour resources across sectors – the problem of ensuring that labour resources are employed where their (marginal) contribution to value added is highest. The first section reviews the role of wages and competitive labour market mechanisms in skill acquisition and the industrial distribution of labour. This discussion effectively examines the role of wages as the market price of labour and hence a key signal in the process of guiding labour resources to their most productive employment. The second section examines the different institutional approaches to wage formation found in advanced market economies. The introduction of institutions forces examination of the distributional aspects of wages, which arises because wages are also the main element of income for most workers.

The third section of the paper shifts to the performance problem and considers how wage incentives are used to secure the efficient utilisation of labour resources within organisations in market economies. The section discusses alternative wage payment methods and the problem of setting incentives for managers. The final section covers money wage growth, the effect of institutional arrangements on macroeconomic outcomes, and the role of incomes policies. A discussion of the implications of the

experience in market economies for the economic transitions in former CPEs concludes each section.

## I. THE ALLOCATION OF LABOUR IN A MARKET ECONOMY

In a market economy, the compensation of labour is determined by the interaction of demand and supply in each labour market; relative compensation by the interaction of relative demand and supply. Wages, the main element of compensation in market economies, are the focus of this discussion, but the interaction between wages and other elements of compensation is discussed later in the section.

The demand for labour ultimately depends on the value of the output produced by labour, evaluated at the market prices that consumers are willing to pay. At prevailing wages, employers hire more workers only if doing so adds to profits – if the value of additional output produced exceeds the additional costs. At any given moment, higher wage costs reduce profits and hence employment, and conversely. (The tension between wages as the price (cost) of labour and wages as worker income is seen most directly here – higher wages imply higher income for some workers but less employment because of higher (wage) costs.) Labour supply depends on the alternatives available to workers in each labour market compared with the value they put on leisure time. Workers choose the job that maximises net compensation (including both monetary and non-monetary benefits and costs). Once a job choice is made, a voluntary job change will occur only if higher net compensation is offered at another job.

The conflicting interests of employers (demand) and workers (supply) rather than administrative announcements produce a market wage. Deviations from the market wage rapidly become apparent. Employers offering wages below the market rate experience high quit rates (voluntary departures) and recruiting difficulties, while those offering above-market wages have relatively high labour costs and many job applicants. These forces move wages toward the market equilibrium wage that balances the amounts of labour demanded and supplied.

Shifts in either labour demand or labour supply can produce changes in wages. If demand for an industry's product increases, i.e. consumers are willing to pay more for the industry's output, each firm in the industry can increase profits by hiring more workers, even though a higher (relative) wage offer may be necessary to attract workers to the industry from other jobs. Conversely, there will be downward pressure on pay as it becomes less profitable to employ workers in declining sectors, a process that encourages workers to move to growing sectors, thereby facilitating the reallocation of labour resources in response to structural changes.

The same mechanism produces adjustments in the skill structure of the labour force. If the demand for skilled labour exceeds supply, the relative wage of skilled workers increases, raising the incentive for more workers to acquire skill. Alternatively, if workers acquire more education (because of increased subsidies for schooling, for example), the relative supply of skilled (highly educated) workers increases (and the

relative supply of unskilled workers simultaneously decreases). In this instance, the skill differential will fall in response to developments on the supply side of the labour market, reducing the economic incentive to acquire additional schooling.

Under competitive conditions, the actual path of relative wage differentials in market economies therefore depends on the specific changes in relative demand and supply that occur in each economy. Developments that are more or less common to all countries produce common tendencies in wage differentials. For example, there has been a secular narrowing of occupational (skill) differentials in market economies reflecting the spread of compulsory education and the rise in the minimum age of leaving school – developments that increased the relative supply of more skilled labour (Phelps Brown, 1977, Scitovsky, 1966).

On the other hand, changes in demand and supply that are not common to all countries can produce diverse movements in wage differentials among market economies. The behaviour of industrial wage differentials in the 1970s and 1980s provides an example. In some countries, the dispersion of industrial wages has increased (e.g. Denmark, Switzerland, the United Kingdom and the United States); in others it has decreased (e.g. France, Italy, Sweden); and in still others there has been little change. In principle, all of these patterns could emerge in market economies, even in the absence of the institutional influences discussed below in Section II. In the long run, interindustry wage differentials reflect only differences in occupational (skill) mix and nonpecuniary employment conditions. In the short run, however, industry-specific demand effects will change the industrial wage structure, so that a crucial question is whether wage and productivity changes are positively correlated. A recent OECD analysis found a statistically significant positive correlation between changes in value productivity and wages for most of the market economies analysed as well as between changes in industry skill structure and industry wages (OECD, 1985, Chapter 5).

Many students of labour market behaviour have noted that wage differentials, while responsive to broad movements in relative demand and supply, may nonetheless remain rather stable in the face of smaller changes in the balance of market forces. This can reflect the influence of collective bargaining contracts under which wages are adjusted only periodically, but non-union wages can also exhibit inertia. When wage structures are somewhat inflexible, some jobs or sectors may have unemployment (excess supply), while others have job vacancies (excess demand). Relative job availability also influences the reallocation of labour, and relative job vacancy rates appear to be more flexible than relative wages. Workers often appear to choose between sectors on the basis of expected compensation – the wage weighted by the probability of getting a job. A study of labour mobility in OECD countries emphasised the importance of job vacancy mechanisms in the labour market over 25 years ago (OECD, 1965). Subsequent studies confirm *i*) a positive correlation between overall job vacancy rates and the extent of labour mobility and *ii*) the importance of both relative wages and job vacancies in reallocating labour within major European countries (Flanagan, 1987b, Holmlund, 1984, Pissarides, 1978).

Although wages remain the main element of labour compensation in market economies, fringe benefits (payments that do not take the form of currently spendable cash) are also important and can influence the structure of wages. Indeed, the wage component of total compensation has declined over time with the growth of both private fringe benefits (such as paid vacations, health insurance, and pensions) and legally-required benefits that employers must fund (such as social security and unemployment insur-

ance). Except for legally-required benefits, firms have considerable choice in the mixture of wages and fringes in their compensation package, and this mixture typically varies across firms. Since employers in market economies must remain profitable to remain in business, their labour costs must be in line with costs at other firms. As a result, higher fringe benefit costs must be offset by lower wage costs. That is, workers receiving more generous fringe benefits “pay” for them by receiving lower wages. Empirical studies tend to support the prediction of a tradeoff between wages and fringe benefits when other factors such as worker quality are held constant.

#### A. Implications for labour market transitions

Four notable points about labour market mechanisms in market economies deserve attention in the labour market transition in CPEs. First, the reallocation of labour resources rests on the ability of labour supply to adjust to market incentives. Even if one gets the incentives right, barriers to mobility will prevent the movement of resources from low-productivity to high-productivity employment, thereby reducing the output of the economy below potential. The shortage of housing in many CPEs seems particularly pertinent here.

Second, the signals (incentives) themselves need some work. As one observer notes: “Employment subsidies create a wedge between the wage paid to workers and their value marginal product. The wage does not reflect the opportunity costs of labour so it does not send the right signals for labour allocation economywide” (Vodopivec, 1990, p. 25). If wage differentials do not reflect the relative scarcity of different types of labour, labour is unlikely to move to its most productive place of employment, and employers are unlikely to use labour efficiently. If choices must be made, the first priority should be getting the signals right for the newest labour force cohorts for reasons noted in an earlier study of labour mobility in Western European labour markets: “... much of the flexibility in external labour force allocation comes from its most recent entrants and from the unemployed .... It is the youngest workers who have the strongest incentives to make the investments that the allocation of labour resources typically requires. The fact that the major external reallocations of labour resources occur through the choices made by new labour-force entrants emphasises the importance of the wage incentives facing students making career choices over the wage incentives facing labour generally in guiding labour mobility” (Flanagan, 1987b, p. 189).

Third, the preceding discussion said little about the speed of adjustment – how rapidly labour market mechanisms operate. In the case of relative supply adjustments, this depends on the costs of the human capital investments needed to make the adjustment. Changes of employer within the same labour market are less costly than changes that require moving to another labour market and hence can occur more quickly. The latter change is more costly (to the extent that it requires migration) and hence will require a larger wage differential than the former change. Changes in skill and occupation generally occur most slowly because a period of training is required. Nonetheless, there is clear evidence from western economies that enrolments for advanced training in engineering physics and other professions increase with the relative wage earned in those professions. Initially, large wage differentials may be necessary to stimulate important human capital investments (notably to overcome historical biases against highly educated labour), but some of the increased wage

differentiation will be transitory. The supply response to the differentials will subsequently produce a narrowing of the wage structure. Wage inequality will increase during the transition and then diminish.

Fourth, flexibility of relative wages in response to structural changes in labour markets is more desirable than any particular wage structure. It is rather difficult to evaluate labour markets under different economic systems or institutional arrangements simply by comparing wage dispersions. We have seen that the equilibrium relative wage structure depends on the structure of relative demand and relative supply across sectors, and in principle this can vary greatly across countries. For example, one major study of wage differentials concluded from a review of data for the 1960s and early 1970s that: "... the most remarkable feature of the comparison between the Soviet-type and Western pay structures is the extent of their similarity" (Phelps Brown, 1977, p. 43). Few, if any, labour economists would conclude from this that labour markets allocate labour resources equally well in the two economic systems.

## II. SYSTEMS OF WAGE FORMATION

The forces of demand and supply discussed in the prior section are filtered through the wage formation institutions of the labour market. While these institutions do not supplant the forces of demand and supply they can constrain them sufficiently to alter wage outcomes. Market economies exhibit three major mechanisms of wage determination – non-union, collective bargaining, and arbitration. The mechanisms are not mutually exclusive – they can and do coexist in most developed market economies. In addition, there is often some state regulation of wages. The extent to which regulations established by laws and collective bargaining thwart the normal allocative mechanisms of the labour market has been a major issue in virtually all labour markets. This section reviews the wage formation institutions of market economies to provide some indication of the potential scope of institutional choice available with a transition to a market-based economy.

### A. Non-union wage determination

Competitive non-union markets provide the most decentralised approach to wage determination, since wage determination occurs at the firm or even plant level. Procedurally, employers in non-union labour markets appear to make unilateral wage decisions, for they announce, usually annually, the wages that they will pay for various jobs and job grades. In fact, employers are constrained by the costs of making a poor choice of wage. If wages are set much higher than at other firms, the employer will have higher labour costs than his or her competitors. If the wage is set much lower than elsewhere, the quit rate at the firm will increase as workers leave for superior conditions at other firms, and the employer will have few applicants for vacant jobs. Non-union employers

prefer to choose a wage policy for the firm that avoid these costs, but initially lack the information on what other employers are paying.

In order to reduce such costs, many non-union firms subscribe and even contribute to wage surveys of their labour market. (These surveys may be public or private.) Wage surveys typically establish job descriptions for rather detailed jobs common to many firms in the industry and request firms to submit data on the average wage or salary and some measure of wage or salary dispersion (e.g. quartiles) for the job. Participating firms submit wage and salary data for those jobs that match the descriptions in the survey. The survey firm or agency then compiles and publishes summaries of the data by detailed job category. (Survey firms usually preserve confidentiality of responses by individual participating firms, but a few surveys report results on a firm-by-firm basis.) The published information usually includes measures of average wage (mean, median), wage dispersion (minimum, maximum, first quartile, third quartile), number of responding firms, number of employees, and perhaps the amount of recent hiring activity for each of the surveyed jobs.

This helps to solve the non-union firm's information problem. With this information, most non-union firms appear to set wages by choosing a position in the reported wage dispersion and maintaining their position over time until circumstances change. Firms desiring higher quality workers or a relatively large applicant flow will pay a relatively high wage for a **job**. Other firms choose a relatively low wage. When demand for a firm's product increases, the firm may try to increase its relative wage in order to attract more workers. If increased demand reflects an improvement in general business conditions, the effort of all firms to increase their relative wage position will produce a general wage increase. No explicit negotiating mechanisms are involved.

The wage surveys used in non-union labour markets invariably report wage dispersion in local labour markets for even very narrowly defined jobs. In part this reflects differences in the financial conditions among firms employing workers in a given skill, and provides incentives for reallocation of employment. In part it can reflect nonmonetary differences in employment conditions across firms or differences in some fringe benefits. It may also reflect differences in recruiting strategies among firms; a high relative wage position may reduce the direct expenditures needed to identify and recruit suitable employees.

## **B. Collective bargaining**

Labour unions have been a ubiquitous institutional feature of economic growth in all countries, irrespective of ideological orientation or stage of development. Both the scope of collective activity in labour markets and the way in which workers and employers organise themselves for collective action vary substantially across market economies. **As** a percentage of nonagricultural employment, union membership is highest in the Scandinavian countries, in the middle range for most larger European countries, and lowest in North America, Japan, and France (Hartog and Theeuwes, 1992, OECD, **1991**). Within countries, unionised wage determination varies substantially by sector – generally higher in goods-producing than service industries, higher among blue-collar than white-collar employees, and higher in the public than the private sector.

Depending on the exact institutional arrangements, the reach of collective bargaining can be broader or narrower than indicated by union membership statistics. In several continental European countries legal rules extend the reach of collective bargaining beyond the union membership. On the other hand, in countries with centralised bargaining structures, union contractual requirements regarding wages and other employment arrangements apparently do not bind many employers. (Further discussion of this point appears below.) During the 1980s, union membership declined in many of the largest market economies (Hartog and Theeuwes, 1992, OECD, 1991). The influence of collective bargaining on wage determination has been declining.

Three aspects of collective bargaining can alter wage behaviour and wage structures. First, since unions make most important decisions by membership votes, they will try to negotiate contracts that satisfy the interest of the median union member in order to secure majority support. Non-union employers, on the other hand, will tend to establish policies that retain the most mobile workers, who tend to be younger than the average employee. For this reason alone, wage and employment outcomes under collective bargaining may differ from non-union outcomes.

The structure of collective bargaining also influences wage outcomes. A combination of historical accidents and strategic bargaining considerations have produced a variety of official bargaining levels, ranging from comparatively decentralised bargaining (frequently at the plant and company level) in Japan and the United States, to industry-level bargaining in much of continental Europe, to economywide bargaining in Austria and some Scandinavian countries. Like central planning, centralised bargaining has difficulty in addressing heterogeneity – in this case the wide variety of labour relations problems faced by the many plants, firms and industries subject to the agreement. Centralised negotiations tend to focus on issues, such as wages and hours of work, that have a common meaning and method of application across companies, while issues of variable importance across firms may be ignored, despite their importance to some workers. Thus, decentralised bargaining and implementation mechanisms frequently emerge in centralised bargaining systems. During the 1980s, official collective bargaining structures in many market economies decentralised further. Recent decentralisation ranged from Sweden to the United States, two countries often cited as opposite poles in bargaining structure. One consequence of this development is that to the extent that collective bargaining establishes final outcomes, wages and other employment arrangements may be more variable than in the past in these economies.

The final aspect of collective bargaining influencing wage behaviour in market economies is the duration of the collective bargaining agreement. As noted, non-union wages tend to be revised at least annually. In many countries, one-year collective agreements are also the norm. The costs of negotiating an agreement provide incentives to negotiate less frequently, however, and in some countries collective bargaining agreements may apply for two or three years. Wages in long-term contracts are typically adjusted each year on the basis of economic conditions expected when the contract was negotiated, but are not generally contingent on unexpected economic events (except at times for general price increases). This adds an element of rigidity and inertia to wages in unionised labour markets with long-term contracts.

### **C. Arbitration**

Arbitration is the third major mechanism of pay formation in market economies. Wage arbitration occurs most extensively in Australia and (until recently) New Zealand. Under the Australian system, a federal commission and state tribunals issue arbitration awards covering minimum wages and some other terms of employment for an occupation after conducting a quasi-judicial hearing at which representatives of workers (usually a union) and employers present competing claims. Federal awards apply nationwide to all workers in the occupation. In terms of substantive economic outcomes, arbitration therefore resembles centralised collective bargaining. Procedurally, the “negotiating” is conducted in a trial-like setting before a third party, who will determine the outcome. (The federal commission may also designate a wage established in collective bargaining as the official award at the request of labour and management.) Arbitration is also available to settle collective bargaining disputes over pay in many state and local government jurisdictions in the United States. Unions in these jurisdictions do not have the right to strike, and arbitration serves as a substitute dispute-resolution procedure if the parties reach impasse. In contrast, arbitration is rarely used to determine pay in the private sector of the United States, where the right to strike exists. However, most collective bargaining agreements provide for arbitration as the final step in grievance procedures established to resolve disputes over the interpretation and application of such agreements.

### **D. Mixed wage formation systems**

What can be said about the relationship between wage-formation institutions and wages in market economies? In economies in which it is possible to observe both a union and a non-union sector statistically (e.g. the United States, Canada, and the United Kingdom), union wage levels exceed non-union wage levels for a given quality of worker. The difference between union and non-union fringe benefits is even larger. Union wages averaged 15 per cent higher than non-union wages in the United States between the mid-1950s and the late 1970s (Lewis, 1986). The union wage premium was somewhat lower in the United Kingdom (Addison and Siebert, 1992).

These averages conceal considerable variation across bargaining situations and over time. In the United States, union relative wage effects are higher in nonmanufacturing than in manufacturing industries, and higher in construction than in other non-manufacturing industries. In a few highly competitive industries, such as textiles and apparel, unions appear to have no effect on wages, although they influence many other employment conditions. Industrial unions usually negotiate equal absolute wage increases for all occupations, so the union wage impact is generally largest for labourers, next highest for operatives, and lowest for craft workers. The union wage impact is also much higher for blue-collar workers than for white-collar workers. Thus, over time union wage policies narrow skill differentials in industry.

Under decentralised collective bargaining employers have no assurance that competitors will face the same labour costs. Wage bargains tend to reflect the employer's ability to pay, and actual wage payments rarely deviate from contractually specified rates. Wage drift, the tendency for earnings to increase more rapidly than negotiated

rates, is unknown. Once a contract is signed, employers can predict labour costs and workers can predict incomes with considerable certainty.

Under the more centralised bargaining structures in many European countries, the effect of unions on wages is more difficult to ascertain because of the presence of wage drift. This distinction between contractual and effective wages seems more or less inevitable when collective bargaining negotiations establish a minimum rate across a broad range of firms whose individual economic and technological circumstances differ. Under the most centralised wage formation arrangements, the distinction is hardly trivial. In a recent study of pay determination under centralised collective bargaining in Scandinavia, the share of wage drift ranged from 30 per cent of hourly earnings in Finland to 60 per cent in Norway for 1971-84 (Flanagan, 1990). Scandinavian wage drift reflects a combination of payments to meet firm-specific demand conditions and local bargaining over the implementation of central frame agreements.

Under the Australian arbitration system – another form of centralised pay determination – “overaward” payments are also common. Such payments may be granted unilaterally by employers or they may be required by collective bargaining agreements. In early 1990, some 68 per cent of workplaces (comprising 56 per cent of employment) made overaward payments to some employees. The payments are more common in the private than in the public sector and more common in smaller than in larger workplaces. In a recent survey, most managers indicated that the payments were needed for adequate recruiting or to reward and encourage effort (Callus et al, 1991, pp. 42-43).

Clearly, decentralised wage formation processes are also important in countries that appear to have centralised wage determination institutions. There is an important distinction between official and effective bargaining structures. Market economies with centralised pay determination institutions in fact have mixed systems of wage formation, in which pay requirements established in official bargaining or arbitration arrangements may not actually bind employers. To the extent that the drift component of earnings reflects employer decisions in response to economic conditions, decisions resembling non-union pay determination may operate side by side with centralised bargaining institutions. Union and non-union pay determination may coexist within the same sector.

## **E. Equity versus efficiency**

In virtually all market economies, collective organisations, like planning authorities in CPEs, have sought to achieve greater equity by narrowing the wage structure. Efforts to achieve greater pay equality in collective bargaining usually begin as an effort to implement “equal pay for equal work” – an objective not necessarily at variance with allocational efficiency in labour markets. Over time, the policies tend to evolve into a narrowing of many dimensions of the pay structure.

Institutional influences on pay differentials were particularly notable between the late 1960s and late 1970s in many OECD countries. Centralised pay formation institutions achieved the greatest pay compression. The “solidaristic wage policies” of some Scandinavian labour federations produced a significant narrowing of wage structures until the early 1980s. Some narrowing of pay distributions has also occurred in Euro-

pean countries with more decentralised bargaining arrangements, particularly following the wage explosions of the late 1960s and early 1970s. Despite increasing pay differentials between union and non-union workers in the same occupation, unions in the United States have reduced overall pay dispersion by also narrowing wage differentials between regions, firms, and occupations (Freeman and Medoff, 1984). In some countries, wage indexation policies and incomes policies with special provisions for low-wage workers have also narrowed the wage structure (OECD, 1987, Chapter 3).

Several western countries, including Belgium, Canada, France, Germany, the Netherlands, Portugal, Spain and the United States, have adopted statutory minimum wage policies in an effort to raise the incomes of low-paid workers. Such policies can raise total wage payments to these groups as long as the demand for their services is inelastic – that is, if increases in the minimum wage rate are proportionately larger than the reductions in employment that they stimulate because minimum wage workers are now more costly to employ. This appears to be the case in countries where this relationship has been studied (Bazen and Martin, 1991, Brown, 1988, Kaufman, 1989). Even when total wage payments to a low-paid group increase as a result of a statutory minimum wage, inequality within the group increases as some workers lose their jobs while others remain employed. Studies in the United States have found that at least two other factors tend to undermine the equity objectives of minimum wage policies. First, the minimum wage tends to reallocate young workers from full-time to part-time employment. Thus, maintenance of employment may not be associated with maintenance of income. Second, the correlation between wage levels and family income is weak. Most minimum wage workers are not members of poor families (Gramlich, 1986). To the extent that deterioration of job prospects early in life reduces on-the-job training, the efficiency costs are not necessarily transitory.

## F. Implications for labour market transitions

While no Western government attempts to specify the entire structure of wage rates as CPEs do with the determination of tariff rates, institutional action on some dimensions of the wage structure via legislation, collective bargaining, or arbitration exists in virtually all market economies. Nevertheless, the basic motivations driving each side of the market remain intact. Perhaps the crucial difference between wage structures established by administrative action in CPEs and by collective bargaining in market economies is that in the latter case, employers who must consider the effect of alternative wage settlements on the financial viability of the firm participate in forming the wage agreements. Much the same may be said about the arbitration approach to wage determination.

In CPEs, the activities of a central planning authority directly alters the motivations of employers (plant managers) and hence the demand side of the labour market. Bargaining with planning authorities involves a very different agenda (e.g. lower planning targets, increased subsidies) than bargaining with unions. Indeed, bargaining between plant managers and planning authorities often seems to be over bailouts for labour cost overruns. As a result and in stark contrast to historical experience in market economies, workers are currently far better organised for labour relations than managers in most of the former CPEs. The formation of an effective management presence in these countries is particularly important for the development of noninflationary collec-

tive bargaining relationships. The twin prerequisites for establishing effective labour relations in former **CPEs** are the development of private property rights and hard budget constraints. Until managers are accountable to private owners who have assumed a risk of financial failure, the former **CPEs** will lack the management counterweight to worker demands that typifies market economies. Later sections of the paper, notably that on incentives for managers, provide indications regarding what might be done.

A second point concerns the relationship between the flexibility of wage adjustments and the choice of wage-formation institutions. Experience in advanced western economies indicates that decentralised non-union pay determination provides the greatest wage flexibility and assurance that relative wages will tend to signal relative scarcities. The effects of collective bargaining on wage flexibility appear to depend most crucially on bargaining structure and contract duration. Decentralised short-term (e.g. one-year) labour agreements provide some potential for wage flexibility, but this potential can be undermined to the extent that unions try to maintain a fixed relative-wage relationship with each other. Longer-term contracts add elements of rigidity – even in decentralised bargaining structures. For example, union wages in the United States are less responsive than non-union wages to market pressure (unemployment), largely because of the inertia of deferred wage increases in long-term agreements. Long-term, centrally-negotiated agreements have the potential to provide the most rigid institutional constraints, but in practice, their impact on wage flexibility depends on the scope of the wage drift emanating from "unofficial," decentralised pay decisions in these systems.

Finally, there is the emphasis to be given to equity and efficiency considerations in wage policy. Despite the general proposition in economics that there can be only one instrument per objective, there is a tendency in most economies to assign two objectives to the wage structure – efficiency and equity. The two objectives tend to conflict since the equity objectives generally call for a more compressed pay structure than is desirable for efficiency (allocational) purposes. Authorities in **CPEs** have given particularly strong emphasis to equity objectives in designing tariff wage structures (Adam, 1984, Oxentierna, 1990). Are the efficiency costs of pay compression policies a reasonable price to pay for gains in equity, given that other policies (e.g. fiscal redistribution) are available to secure greater equity? Labour market analysis and experience in advanced market economies cast doubt on the efficacy of pursuing equity goals by narrowing the wage structure.

One reason is inherent in the tradeoff between wages and employment on the demandside of the labour market noted earlier in the discussion of statutory minimum wages. The equity effects of pay compression policies are eroded further by the fact that wage drift tends to counter (although it does not completely offset) institutional efforts to narrow the wage structure. Skilled workers who lose their relative wage position from negotiated pay compression tend to regain part of it from wage drift. This additional pressure on wage drift can in turn become part of the mechanism of inflation, a point that is discussed further in Section IV.

In addition, the effect of institutional pay compression on the structure of earnings by job is to a considerable extent undone by the mobility of individuals through the earnings structure. Institutional reductions in the inequality of the earnings structure will lower individual inequality only to the extent that individuals maintain their relative position in the earnings structure. In fact, the relative earnings of individuals are quite

volatile. Changes of employers, promotions, layoffs, and variation in effort under payment-by-results systems all tend to rearrange relative earnings. Empirical evidence shows that even within periods as short as a year, there is substantial mobility in both directions through the earnings distribution. For example, one study determined that only about 55 per cent of Swedish adult male workers remain in the same quartile of the earnings distribution over a six-year period. The proportion is much smaller for younger workers. About 40 per cent of Swedish blue-collar workers who did not change employer, moved into a different decile of the earnings distribution over the course of one year (Flanagan, 1987a, pp.151-54). With **so** many workers changing their relative earnings position during even short periods of time, it is doubtful that changes in the earnings structure can be regarded as a powerful influence on overall equality. Government tax and transfer programs appear to offer a more powerful mechanism than pay compression for reducing inequality.

### III. THE UTILISATION OF LABOUR WITHIN ORGANISATIONS

The previous sections reviewed the role of market wage differentials in allocating labour from low- to high-productivity sectors and the tension between market and institutional influences on wage structures. Most of the mobility that allocates workers across occupations and industries occurs early in their worklife, when the requisite investments in schooling, training, information, and mobility will have the highest payoff. Once these choices are made, most workers tend to remain with the same organisation for much of their worklife. Job tenures in market economies tend to be quite long (OECD, 1984, Chapter 4) – sufficiently long that they are sometimes referred to as “career” relationships. Workers effectively move from the external labour market, governed by the mechanisms discussed in Sections I and II, into the “internal labour market” of the organisation.

Once a worker begins a long-term or career employment relationship in an organisation, further contributions to productivity depend importantly on the incentives established in that organisation’s internal labour market, and in particular by the method used to determine the worker’s wage. Market economies support a wide variety of wage payment methods, which are discussed in this section. The choice of payment system, that is the nature of the incentive structure in the internal labour market, is closely linked to the particular problems of management and supervision presented by the nature of work in the organisation, and the degree of flexibility needed to adjust to changing technology and other sources of structural change.

#### A. Time payments

Payment for time worked (e.g. hourly wages, monthly or annual salaries) is the most prevalent wage payment system in advanced market economies. Pure time payments seem to offer weak performance incentives and to be suitable only in situa-

tions where it is not costly to monitor individual output levels. Nonetheless, time systems can be adapted to work situations where performance cannot be monitored continually. For example, time payments may be incorporated in “merit systems” in which supervisors evaluate and rate employee performance periodically. The performance appraisals in turn influence retention, promotion, and salary increases. The possibility of future promotion into higher-paying jobs provides incentives for good performance.

Wages may rise with seniority – time in job – for several reasons. Human capital theory stresses that wages grow with seniority because workers and their employers make training and other human capital investments that increase worker productivity. These investments rationally decrease over an employee’s worklife, **so** that the growth rate of time wages decreases over time. A second motivation is captured by the literature on delayed payment contracts that are designed to discourage employee malfeasance and shirking. The idea is that workers effectively post a bond against bad performance at the beginning of their career with a firm by accepting wages that are lower than their value to the firm. If workers continue to perform well, they are paid more than their value to the firm toward the end **of** their career and afterwards (via pensions). These payments systems are often coupled with mandatory retirement rules, since the wage payments to a worker cannot exceed the worker’s value to the firm over his or her career. Delayed payment contracts can in principle provide important incentives in work settings in which regular monitoring of performance is not possible, but their empirical importance remains in doubt (Hutchens, **1989**).

In some countries, unions also rely on seniority to allocate economic opportunities such as promotions and (protection from) layoffs in ways that produce higher and less variable incomes for more senior workers. These unions appear to favour seniority because it is an objective measure, easy to observe, monitor and enforce, that limits the scope for favouritism in personnel decisions. By reducing competition among individual workers, seniority arrangements have the potential to raise productivity by providing an environment in which more experienced workers have little to risk from training inexperienced workers.

Seniority has the potential to be divisive among workers, since the least-senior employees bear most of the risk of business fluctuations. Worksharing, an alternative institutional arrangement for allocating employment during recessions that is favoured outside of North America, does not share this feature. The ultimate divisiveness of seniority arrangements may depend on the extent to which employees believe that they are in a career relationship with a firm. If **so**, the instability of income earlier in their career is merely an investment in lower risk in their more senior years.

Wage progression related to length of tenure with the same employer is common for white-collar workers in market economies. It is less common for blue-collar workers, except in Japan and the United States. Seniority wage increases among blue-collar workers operate differently in Japan and the United States. In Japan, increases are related to the acquisition of competence in a broad range of tasks. This facilitates reassignment of workers in response to changing production needs. In the United States, increases occur in more narrowly defined job groupings. Japanese blue-collar workers are said to have **broader** careers than their counterparts in other market economies (Koike, **1988**).

## B. Individual incentives

Under individual incentive plans, a worker's pay varies with some indicator of individual performance. Individual incentive payments may be tied to physical output (piece rates) or a value measure (as in sales commissions). Individual incentive payment plans serve two functions – motivation and sorting. If carefully designed, they may motivate higher performance by employees. At the same time, incentive plans offer a more variable income stream that depends on the energy and efforts of employees. Individual incentive schemes should therefore attract workers who are relatively productive and tolerant of risk. Incentive workers generally earn a wage premium of 10 to 15 per cent over time workers. Such measured differences in productivity between workers under time payment schemes and workers under incentive schemes reflect both the sorting and motivational effects, but do not isolate the separate contributions.

The use of piecework or payment-by-results systems varies substantially across industries and countries but is more common in CPEs, where it has been the dominant wage payment system, than in advanced market economies. Since the 1960s, the use of piecework appears to have declined in both market economies and CPEs (ILO, 1984). The declining use of payment by results may seem paradoxical in view of case study evidence indicating that well-designed individual incentive systems can raise performance by 10-25 per cent. Some of the variation no doubt reflects the fact that individual incentives are only practical in jobs where each employee's contribution to output can be assessed at low cost.

In practice, the greatest and most paradoxical difficulty with individual incentives is that problems in application or design often tend to reduce output. This problem can often be laid at management's door. When workers respond to piece rates by increasing output (and their income) management has often cut piece rates. Workers in both union and non-union enterprises quickly learn to establish and enforce output norms and to conceal new and more efficient work methods in order to avoid a de facto speed up by rate-cutting. More sophisticated piece-rate systems use job evaluation to establish output norms and then pay for output in excess of the norm. When jobs are evaluated, workers have an incentive to work in a way that produces a low norm. An adversarial relationship tends to develop between the employees and those trying to implement the system.

Individual incentive plans reward workers for responding only to the measure used for assessing performance. If pay is based on quantity of output, workers may become careless about output quality and may waste other inputs, such as raw materials. Piecework systems do not solve the monitoring problem; they change its nature. Individual incentives are most suitable in work settings where both the amount produced by an individual and the quality of output can be easily monitored. Where these conditions are not present, as in team production settings and (of increasing importance) much white-collar work, alternative payment systems are preferable. Technological advances that alter the nature of work also increase the difficulty of creating effective individual incentive plans and necessitate often conflictual restructuring of piece rates.

In summary, individual incentives are most suited for simple, repetitive, stable work that is easy to measure comprehensively. These plans tend to divide organisations into individuals or small groups who feel that they are competing with each other, however, and are not likely to facilitate the integration of work activities. They are more suitable

where the nature of work is stable, so that it can be carefully studied and does not require constant revision of standards in response to technological change.

### C. Group incentives

Time payments and individual incentives are the most traditional wage payment methods in capitalist countries. A major problem in many organisations, however, is the inability to observe effort continually. Wage payment systems must be specified in advance, but often, only evaluations of worker performance are possible. In principle, pay systems that encourage workers to perform in the interest of the organisation substitute for ongoing supervision.

Group incentive plans provide one approach to this problem. Three types of plan have evolved in market economies. Gain-sharing plans link the pay of a group of employees to improvements in some measure of internal productivity. Gains attributable to productivity improvements are shared with management. Profit-sharing plans provide a share of profits in a designated pay period to employees. Employee-stock-ownership plans (ESOPS) provide some ownership rights to certain classes of employees. At the microeconomic level, each of these plans appears to have the desirable motivational attribute of linking pay to the performance of the organisation. At the macroeconomic level, it has been argued that widespread adoption of profit-sharing or related plans would reduce the variability of employment (Weitzman, 1984).

Despite the purported advantages of group incentives, they are the least frequently adopted wage payment systems in market economies. The proportion of workers on group incentives rarely exceeds 20 per cent in these countries, and despite increasing interest in the concept of group incentives during the 1980s, use of such schemes increased only slightly (Hartog and Theeuwes, 1992). As with individual incentives, there are distinctive problems with the application of group incentives to many work situations.

One difficulty is that group incentives, by their very nature do not guarantee an increase in productivity. Under group incentives the benefits of one individual's additional effort are spread over all employees in the firm or production unit. If there are  $n$  employees in the group, any individual receives only  $1/n$  of the benefits of his or her extra effort. In large groups this return can be quite small. At the same time, those who do not raise their Performance level nonetheless benefit from the efforts of those who do. "Free-riding" on the efforts of others can be the dominant strategy, and profit-sharing will have little effect on productivity. Recent developments in economic theory show that when workers interact with each other continually, it is possible for a high-effort norm to develop and survive, but many other norms might develop as well. Theory is not clear on the prerequisites for a high-effort norm to displace free riding, but some empirical evidence indicates that profit-sharing works best when combined with employee participation arrangements (Blinder, 1990).

A second difficulty is that risk-averse workers may oppose the more variable income stream presented by profit-sharing. Contingent payment systems simultaneously offer employees performance incentives and greater risk (income variation). To maintain incentives for greater effort while reducing the exposure to risk, payment systems should combine a base wage and a profit-sharing component. Although profit-

sharing makes income less predictable, to the extent that it results in greater employment stability, it may reduce overall risk. Recent evidence for the United States indicates less employment variation in firms with profit sharing (Kruse, 1991).

Given the possibilities and the difficulties, what does the evidence indicate regarding the relationship between profit-sharing and productivity? One particularly broad survey of the evidence from a variety of sources, including econometric studies, case studies, opinion polls, and comparisons between capitalist and socialist economies, concludes that the mean effect of profit sharing is to raise productivity by 7.4 per cent (Weitzman and Kruse, 1990, p. 137). (The median effect is 4.4 per cent.) The outcomes of individual studies vary substantially around this average. On the other hand, the positive relationship between profit sharing and productivity appears to be even stronger in organisations with worker participation arrangements.

It is important to recognise that the underlying studies measure the effect of profit-sharing on productivity levels. Since much of the effect is likely to occur around the time that plans are instituted, they do not provide a guide to the effects of such plans on the rate of growth of productivity. Nor is the evidence clear on whether profit-sharing plans pay for themselves. If profit-sharing components of pay replace fixed-wage components, the evidence in the previous paragraph indicates that they do. But if profit-sharing is an additional element of compensation, the value of the productivity gains should be compared with the additional cost of the compensation system to determine whether profit sharing provides net benefits for the organisation. Finally, none of the studies reviewed distinguish between the sorting and the motivational roles of incentives. Either process can produce private benefits, but it is the latter that has the important social effects.

#### D. Managerial incentives

The business executives of private corporations, acting as agents for numerous, widely-dispersed shareholder-owners, direct the utilisation of vast amounts of resources in market economies. Executives operate in internal and external labour markets, which barely exist in most CPEs. As with other workers, the purpose of such markets is to allocate managerial talent to its most productive use and to create incentives for efficient performance. The structure of executive pay offers one incentive mechanism, but it is not the only mechanism, and there is some debate among students of executive labour markets as to whether wages are the most powerful mechanism for controlling executives.

A fundamental problem in executive labour markets, long recognised in capitalist countries, is the potential conflict of interest between the objectives of the owners of the firm (the shareholders or "principals") and the managers (agents) to whom they delegate the responsibility of running an efficient organisation. The latter have considerable discretion given the invisibility of many of their actions and infrequent monitoring by the former. When the principals do monitor performance, it is usually on the basis of outcomes that are influenced in part by managerial actions and in part by general developments influencing all organisations in the industry. The problem is to structure an executive's employment contract so that the executive pursues the owners' interest in maximising the present value of the stream of profits rather than personal goals that

might subtract from the profits of the organisation (i.e. reduce the owners' return on investment).

The principal-agent problem presented by the management of large organisations is hardly unique to market economies. Many of the reports of organisational inefficiency in centrally-planned economies centre on the ways in which socialist managers subvert the goals of the state central planners (Arnot, **1989**, pp. **40-41**). As in capitalist societies the problem often seems to be the nature of the incentives established by the planners themselves. Theory and evidence on how principals may structure rewards and penalties to control manager-agents is reviewed below.

Various kinds of penalties and rewards may bring the goals of owners and managers into alignment. One approach to penalties is to design executive compensation structures so that managers effectively post a performance bond that they can lose through malfeasance. (This approach parallels the "delayed payment" pay schedules discussed above in the section on time payments.) With personal wealth at risk, managers have an incentive to pursue the principal's goals. Bonds may be "posted" by accepting pay less than their marginal value to the firm and may be returned in the form of a pension after retirement (to discourage malfeasance late in an executive's career). The fact that turnover declines quickly with length of employment in a firm is consistent with bonding (and other) mechanisms. Nevertheless, implicit performance bond arrangements seem unlikely to provide the most powerful incentives to executives in large corporations: "The deterrence value of a bond depends on its size compared to the value of resources at risk of mismanagement and appropriation .... since the value of large corporations exceeds the wealth of top managers by many orders of magnitude, bonds provide less scope for solving the agency problem at the top" (Rosen, **1990**, p. **14**).

The threat of involuntary termination may provide a more powerful incentive for executives to use resources efficiently. If there is doubt over the empirical importance of bonding mechanisms, there can be no doubt about the volume of activity in the market for corporate control in many market economies over the past decade. To the extent that hostile take-overs represent efforts to acquire control of an organisation by managers who believe that they can run the organisation more efficiently than current managers, the market for corporate control provides incentives for executives to perform efficiently. The disciplinary impact of this mechanism is muted, however, by substantial severance packages to displaced executives and the fact that acquiring firms are also run by agents who are not necessarily pursuing their owners' goals.

Existing studies (virtually all of which are on **U.S.** data) indicate that both organisation size and absolute performance influence the earnings of top managers. The linkage with organisation size may reflect the fact that the productivity of executives depends in part on their ability to make decisions that raise the productivity of their subordinates, an effect that grows with organisation size. Linkages between executive pay and current performance are provided by stock options and bonuses that are at least in part contingent on the performance of the firm. Empirical studies agree that there is a positive relationship between executive pay and both the accounting and the stock market rates of return (Rosen, **1990**).

The strongest compensation incentives would not reward or penalise executives for the effects of general economic developments that are beyond their control, as links between pay and absolute performance do. Despite this, there is only inconclusive

evidence of a link between executive compensation and the performance of the firm relative to the industry average. Base salary, a large component of executive pay, is not highly correlated with short-term performance, and little is known about its relation to long term aspects of performance.

## **E. Implications for labour market transitions**

It should be obvious from the preceding discussion that it makes little sense for any industry or economy to be committed to a single wage payment system. Indeed, because the benefits and costs of alternative wage payment methods vary with the organisation of work and other factors discussed in the preceding paragraphs (as well as some that have not, such as the tax treatment of different types of wage and salary payments), one would expect to observe a variety of wage payment methods in market economies and to observe changes in these methods with changes in the nature and organisation of work. In the past, CPEs have used payment-by-results systems much more extensively than market economies, but appear to have been no more successful in solving the practical problems raised by individual incentive plans. With privatisation, a wider variety of payment systems, more effectively matched to the varieties of work organisation and supervision problems may be expected to emerge.

For socialist countries in transition, the establishment of a management labour market and management compensation contracts is perhaps the most difficult and at the same time most fundamental human resources problem posed by the process of privatisation. This is the essence of instituting "hard budget constraints" for organisations as stressed in the literature on CPEs. With privatisation, managers must accept and accommodate themselves to radically different criteria for success than under central planning, and failures must be penalised, as they are in market economies. This requires very different approaches to executive pay in CPEs. Experience in market economies suggests pay packages that include a base amount (as compensation for the basic responsibilities and for accepting the inherent risk in such positions) plus bonuses that are linked to the relative performance of the organisation can align the objectives of executives and the owners (shareholders) of the organisation. (Payments linked to absolute performance measures weaken managerial incentives by rewarding or penalising managers for the effects of general economic developments on firm performance as well as the effects of their own efforts.) CPEs may initially lack some of the institutional foundations for implementing such compensation arrangements. For example, the performance indicators used for some elements of executive pay in capitalist countries are not measures that have traditionally been retrieved by socialist accounting systems.

Another lesson from market economies is that the control of managers may require more than the manipulation of executive pay incentives within organisations. One of the more powerful, if not flawless, mechanisms for disciplining executives in capitalist countries is the market for corporate control. Once again, the institutional prerequisites for the operation of this mechanism (e.g. well-functioning capital markets) exist in only limited form in most centrally-planned economies.

#### IV. MONEY WAGE GROWTH AND ITS CONTROL

The preceding sections addressed the role of wage incentives in raising labour productivity and hence real wages. To many workers, however, increasing productivity must seem like a very indirect route to raising real wages. Raising money wages, that element of real wages that is subject to direct influence by organised worker groups, must seem like a more effective strategy. Yet, because of the intimate connection between money wages and prices, it is not. Money wage and real wage changes are essentially uncorrelated. (In manufacturing, the correlation between the percentage increase in nominal and real hourly wages across 11 OECD countries between 1950 and 1990 is 0.30 (not significant), while the correlation between the growth of hourly labour productivity and hourly real wages is 0.67 (significant).) Efforts to advance real wages more rapidly than productivity through pressure on money wages are ultimately unsuccessful and can be counterproductive through the side effects of the inflation that they may generate. This problem, which confronts all market economies, has led to interest on the relationship between institutional arrangements in labour markets and macroeconomic performance – particularly the development of money wages, inflation, and unemployment. This section considers the extent to which macroeconomic performance depends on collective bargaining structures and the effectiveness of alternative forms of incomes policy in restraining money wage pressures.

##### A. Wage formation systems and macroeconomic outcomes

Section II of this paper discussed the varieties of collective bargaining arrangements that have emerged in market economies and reviewed the effects of unions on relative wages and the allocation of labour. This section considers the effects of bargaining arrangements on the general level of wages and on wage changes. Variations in wage pressure in the aggregate can produce variations in unemployment. To the extent that different bargaining structures generate different degrees of wage pressure, institutional arrangements may be linked to unemployment.

The calculus of union negotiators interested in both the real wage and the employment of their members varies with bargaining structure. Negotiators in centralised bargaining structures have an incentive to restrain wage demands and adjust them more rapidly to economic circumstances, because wage agreements reached in economy-wide bargaining have a comparatively large effect on prices. Large nominal wage increases are therefore less likely to produce real wage gains for union workers than the same nominal increases negotiated in a decentralised bargaining arrangement. Centralised structures also provide the means to limit inter-union rivalries that often produce wage pressure under more decentralised arrangements. These considerations suggest that centralised bargaining arrangements might produce more wage restraint than decentralised structures.

However, centralised bargaining structures also provide unions with more bargaining power, because wage increases produce relatively small employment losses. The breadth of the bargaining structure limits the possibilities for substitutions in production and consumption that would reduce union employment. The demand for labour is less

elastic under centralised bargaining structures, and this may lead to greater wage pressure.

As noted earlier, wage drift also appears to be stronger in economies with centralised bargaining, so that there is no guarantee that negotiated wage restraint will produce smaller earnings increases. One reason for this is that the objectives of negotiators typically extend beyond the wage and employment levels of their members. As discussed in Section II, some centralised labour federations have made notable efforts to negotiate narrower wage structures. Subsequent efforts by skilled workers to regain their relative wage position through wage drift payments contributes to the overall wage pressure emanating from centralised bargaining. These last points imply advantages from decentralised pay structures and have led some to argue that intermediate bargaining structures, such as those found in many of the countries of continental Europe might produce the greatest wage pressure (Calmfors and Driffill, 1988).

Efforts to evaluate these propositions empirically have produced mixed results. Some studies appear to find superior macroeconomic performance associated with more centralised bargaining structures, while others present data indicating that economies with either centralised or decentralised structures have lower unemployment and inflation (Bruno and Sachs, 1985, Calmfors and Driffill, 1988). A recent OECD study found no significant rank correlations between the degree of centralisation of bargaining and either unemployment or inflation rates for 1971-80 and 1981-86. When countries are instead grouped into three broad groups of high, intermediate, and low centralisation: "countries with centralised bargaining had the lowest levels and smallest increases in unemployment rates during both the 1970s and 1980s .... Countries with intermediate bargaining structures experienced the largest increases in unemployment" (OECD, 1988, p. 35). On the other hand, the change in inflation rates was essentially the same between the three groups of countries over the period. This seems inconsistent with the fact that wage restraint should be reflected in inflation rates. Moreover, the relationship between bargaining structure and macroeconomic outcomes appears quite sensitive to the time periods analysed. No simple relationship between bargaining structure and macroeconomic performance seems to emerge from the data.

## **B. Incomes policies**

Dissatisfaction with the wage and price inflation that sometimes emerges in market economies has led to extensive experimentation with incomes policies. During periods of extreme national emergency, such as wartime, direct controls on wages and prices have been introduced in an effort to curb inflationary pressures during a rapid reallocation of resources. (Market economies have most closely resembled planned economies during such periods.) Less stringent incomes policies have been introduced during peacetime to curb the exercise of bargaining power and/or to break through inflationary expectations. With few exceptions, incomes policies in market economies have registered their most sustained success during periods of national emergency.

The difficulties in achieving sustained success with incomes policies in peacetime can be seen through a brief review of the problems encountered by the three main approaches to incomes policy in market economies – guidelines, social contracts, and tax-based incomes policies (TIPs). The guidelines approach to incomes policy estab-

lishes specific policy rules for the growth of nominal wages and prices. Incomes policy guidelines in market economies have ranged from requests for noninflationary behaviour to wage and price freezes, but the most common formulation proposed that money wages grow at the trend rate of growth of labour productivity (implying stable unit labour costs) and no increase in industrial prices. The guidelines were frequently supplemented by certain exceptions to permit allocational flexibility, to encourage plant-level agreements to raise productivity, or to achieve certain distributional objectives, such as increasing the relative wage of low-paid workers.

This formulation of incomes policy, common during the 1960s, generally failed to produce long-term wage and price restraint. Although there were some instances of short-term money wage restraint, the periods of apparent effectiveness were often terminated by waves of wildcat strikes, wage explosions, and severe disruptions of national industrial relations systems. There was even less evidence of short-term price restraint, so in several countries, the net effect of incomes policies was a reduction in real wages. Interestingly, the failure of guideline policies to reduce inflation and unemployment was independent of such institutional factors as the degree of centralisation of collective bargaining, the degree of political support from the trade union movement, or the degree of compulsion used in the enforcement of the policy (Ulman and Flanagan, 1971).

These failures provide two lessons on the limits of incomes policy as a tool for wage restraint. Lesson number one is to understand the causes of inflation before selecting an anti-inflation policy. Early incomes policies were often adopted in periods of substantial excess-demand inflation, during which the discretionary exercise of market power was either not present or not obvious. Deflation or revaluation would have been the more appropriate policy given underlying economic conditions, but the political and economic costs of these options were considered too high. This experience did not rule out the possibility that incomes policy might serve as a useful complement to appropriate macroeconomic policies in some circumstances, however.

Lesson number two is that compliance with incomes policy guidelines requires attractive compliance incentives. In decentralised bargaining systems, the compliance choice places individual unions in a "prisoners' dilemma". Compliance by any one union creates a public good – reduced inflation – that benefits all workers, but only unions that comply bear the costs. Unions that comply therefore experience a real and relative wage loss. Unions that refuse to comply and "free-ride" on the compliance of others increase their real and relative wages. While all unions might benefit from the lower inflation resulting from full compliance, the structure of incentives facing each union individually encourages non-compliance. (This is essentially the same dilemma faced by workers deciding whether to raise their performance level under profit-sharing incentives.) Compliance choices in centralised bargaining systems do not face this dilemma but do present unions with another risk. When centralised labour federations comply with a guideline by restraining negotiated wage rates, their restraint may be offset by decentralised increases in wage drift (particularly if the guideline is in effect during periods of excess demand for labour). As a consequence of its compliance, the official union organisation delivers a diminished fraction of earnings and risks losing membership loyalty.

Under the social contract approach to incomes policy, the government and some or all of the major income-generating organisations negotiate a multilateral agreement about income growth in which wage restraint by unions is only one element. The

government often provides economic or institutional compensation to unions in exchange for wage restraint. In some instances the purpose of compensation has been to protect real disposable incomes by providing tax reductions, wage indexation, or increased social benefits. In others the purpose has been to preserve or improve the legal environment of unions (Flanagan, Soskice and Ulman, 1983).

The social contract approach is most likely to succeed when the number of parties to the policy negotiations are small, as in countries with centralised union structures, but experience in market economies indicates that even this does not guarantee success. Strong central organisations may be able to resolve internal differences in objectives. When there are many participating organisations, negotiations may have to contend with relatively narrow distributional issues. For much of the post-war period, Austria has followed a successful social contract policy because it has the institutional prerequisites and because the parties to collective bargaining have been willing to leave most distributional issues for legislative determination (Flanagan, Soskice and Ulman, 1983). Negotiations between the Labour government in Australia and the Australian Federation of Trade Unions produced a social contract that was associated with lower wages and less strike activity during most of the 1980s (Chapman and Gruen, 1990). On the other hand, social contract episodes in some Scandinavian countries and in the United Kingdom have not been notably successful in producing wage and price restraint.

Where systems of wage determination are decentralised, as in North America, tax-based incomes policies (TIPs) that use the tax system to reward compliance or to penalise non-compliance with pay or price objectives have been proposed to provide incentives for wage and price restraint to decentralised decision makers. In advanced market economies, TIPs have been proposed in many forms, but almost never tried in practice. In contrast, the former CPEs have experimented with various TIPs to control the internal wage bill of state firms, but apparently have not performed well under the prevailing incentives facing such organisations.

### **C. Implications for labour market transitions**

The literature on the relationship between institutional arrangements and macroeconomic performance often seems to imply that bargaining structure is a matter for policy choice. History offers little support for this proposition. Even if there were strong evidence that particular bargaining structures contribute to superior macroeconomic performance, CPEs should be aware that these structures are not easy to develop and maintain. Where they exist, they appear to be the product of rather special historical circumstances and to reflect deeply rooted social commitments that are not easily transferred elsewhere by policy action. Moreover, they are not necessarily durable. The earlier discussion in Section II noted the general tendency toward decentralisation of collective bargaining structures, including some prominent prior examples of centralised bargaining, during the 1980s.

Perhaps the central near-term labour market issue in CPEs seeking to privatise their economies is how to secure acquiescence in real-wage reductions as subsidies for the production of many consumer goods are removed. In this situation it is easier to state the case for incomes policy, than to draw from Western experience to recommend a policy formulation that is likely to succeed. The case for a policy rests on the

inflationary bias in the bargaining mechanism in former CPEs that will precede widespread privatisation. Although unions in some former CPEs have signed contracts that imply lower real wages, collective bargaining or other private wage-formation processes are likely to have difficulty in sustaining this result during the transition period. After years of soft budget constraints and labour-cost overruns, employers are unlikely initially to negotiate wage settlements closely attuned to the financial viability of their organisations in a market setting. For the same reasons, worker organisations may not realise the risks to employment and the viability of firms from pressing wage demands too far. As a result, the risk of nominal wage explosions is high, and there is a case for incomes policy to condition expectations and establish norms as a complement to macroeconomic policy.

None of the formulations observed in market economies seem apt for the current situation, however. Wage and price controls associated with wartime national emergencies, a kind of transition, probably have the best general track record. While some former CPEs may be facing economic national emergencies, such policies are a contradiction to the purposes of the transitions and would seem to delay the development of the incentive structures discussed in the earlier sections of this paper. In contrast, controls in market economies were imposed on well-functioning market mechanisms that resumed operation when controls were lifted.

Less stringent formulations of incomes policy are expected to modify labour's bargaining demands and to stiffen management's bargaining resistance. Logically, they should follow rather than precede the development of property rights and hard budget constraints discussed earlier, since management in particular must face financial incentives in order to take the consequences of non-compliance seriously. This fundamental problem appears to be at the root of the failure of many experiments with TIPs in former CPEs in recent years. It would also be a flaw in efforts to develop social contracts in countries with centralised bargaining arrangements. More importantly, under the economic conditions likely to characterise the transitions, it is not clear that the governments of former CPEs are able to offer workers' organisations the kinds of compensation for wage restraint that have been offered in social contract arrangements in market economies. Finally, the problem of compliance incentives would remain a problem in guideline policy formulations.

## V. CONCLUSIONS

This paper has reviewed experience with wage structures and wage policies in market economies from the perspective of the implications for labour market transitions in former CPEs. The first three sections reviewed the role of relative wage signals in markets and in organisations in producing an allocation of labour and a level of effort that maximises labour productivity. The many specific implications drawn may be organised around *two* broad points: wage signals in both markets and organisations are currently distorted, and signals that solve the allocation and effort problems are unlikely to precede the establishment of property rights and hard budget constraints.



## NOTE

1. The data are from United States Bureau of Labor Statistics (1991). The 11 countries are Canada, Denmark, France, Germany, Italy, Japan, Netherlands, Norway, Sweden, the United Kingdom, and the United States.

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