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THE MICRO-FOUNDATIONS OF SOLIDARITY:
PROTECTIONIST POLICIES,
WELFARE POLICIES AND UNION CENTRALIZATION

by

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INTRODUCTION

In 1900 August Bebel, chairman of the German Social Democratic Party, declared in a speech to a union convention of lithographers, engravers and allied trades:

In my opinion, the tendency to unity and solidarity in the trade unions is irresistible, just because it results from the inherent nature of this movement. . . . As centralization in the organization of the working class becomes a necessity against the centralizing tendencies of capitalism, so the centralized united trades union of the workingmen is necessary against the centralized industrial organization of the employers (1906: 237; italics in the original).

But already in this period there were many within the social democratic movement who, in this regard, could no longer accept the Marxist orthodoxy. Eduard Bernstein noted in 1899 that among German workers in the most advanced industries, "only a moderate feeling of solidarity exists" (1961: 103). Rosa Luxemburg, agreeing with Bernstein on little else, concurred with Bernstein's view that a fragmented union movement was the natural product of ordinary (i.e. non-revolutionary) times. Writing in 1906 she observed, ". . . in the peaceful 'normal' course of bourgeois society, the economic struggle is split into a multitude of individual struggles in every undertaking and dissolved in every branch of production" (1971: 79). And Lenin's skepticism regarding trade unions as vehicles for working class solidarity is well-known.

From the vantage point of the present, it is evident that neither is solidarity among trade unions irresistible nor is fragmentation of the

union movement inevitable. Advanced capitalist countries differ widely in the extent to which the union movement unifies workers as a class. At one end of the spectrum are countries such as Norway, Sweden and Austria where union activity is dominated by one or, in the case of Sweden, two non-competing labor federations which encompass over 60% of wage and and salary earners. (In Sweden union density approaches 90%). On the other end are Japan, France and the United States where union density hovers around 20%, where in the case of Japan and France there are multiple competing labor federations, and where none of the federations exercises much influence over the actions of its affiliated unions.¹ [The extent to which the union movement encompasses and unifies workers as a class] depends on at least three characteristics: (1) whether it encompasses most of those who are potential members, (2) whether it is divided along religious, regional, or political lines, and (3) whether unions representing workers in different sectors act in concert in vital arenas. It is the third dimension--the cooperation among unions within the national labor federations or, as it is usually called, union centralization--which this work addresses.

The essence of centralization is the establishment of institutionalized patterns of joint action among members which, while not absolute, are not lightly broken. Union centralization entails a shift in the primary locus of decision-making from the leadership of organizations at the industry or craft level to the leadership of organizations which are national in scope. It entails, by definition, a diminution of the autonomy of the affiliated unions. As expressed in

¹ Figures on union density are from Visser (1983) and Cameron (1982).

the preamble to a resolution adopted in a convention of the Dutch federation, the NVV, in 1973:

The NVV is a federation of autonomous organizations, it being understood that their autonomy is limited precisely by the fact of federative cooperation. The individual unions delegate to the NVV a portion of the independent authority to make decisions (quoted in Windmuller 1975: 92).

Concretely, centralization has meant the dominance of the national federation in the decisive areas of collective bargaining and industrial conflict. In Sweden, for example, the national union federation (LO) acquired in 1941 the power to supervise the wage negotiations of its members and, critically, the right to veto strikes involving more than 3% of the workforce in any industry. By 1956, the LO and the national association of Swedish employers (SAF) were engaging in biennial, peak-to-peak, bargaining on a national scale (Robinson 1974, Hoegberg 1973). In Austria the peak association alone has the legal right to negotiate labor contracts (Windmuller 1975). In Norway wage negotiations have been conducted at the national level throughout the postwar years with the sole exceptions of 1956, 1961, and 1974 (Schwerin 1982: 473). Moreover, Norwegian unions "cannot give notice of termination of collective agreements, present new demands, or call a strike without approval of the central body" (Windmuller 1975: 99). Centralization, in sum, represents a partial defacto merger of unions throughout the economy. The autonomy of affiliated unions in centralized federations can be compared to the autonomy exercised by union locals in the United States.

Long a concern of union and party activists, interest in the degree to which unions embrace and unify workers throughout the economy entered

the mainstream of comparative politics somewhat surreptitiously through the growth of attention to corporatism as a system of interest representation. In Schmitter's (1974) original definition, corporatist systems of interest representation are those in which a small number of encompassing and centralized interest organizations are dominant in contrast to pluralist systems in which interest groups are large in number and, for the most part, narrow in scope. Moreover, while Schmitter defined corporatism as an adjective that qualifies all interest groups, the literature on corporatism emphasizes almost exclusively the organizational structure of the trade unions and employers' associations. (Schmitter and Lehmbruch 1979, Lehmbruch and Schmitter 1982). Further, since, on the one hand, the organization of employers generally mirrors the organization of workers and, on the other, collecting data on employers' associations is substantially easier than collecting data on workers' associations, the operationalization of corporatism for empirical work has, to date, an even narrower focus on the trade unions alone.

Thus, either as part of the definition of corporatism or standing alone, union centralization has emerged as an important explanatory variable in a wide variety of studies of public policy and economic outcomes. While in the Marxist tradition, solidarity among unions is considered an important step in the transformation of workers into a revolutionary force, contemporary scholars in comparative industrial relations have concluded that union centralization reduces industrial conflict (Ross and Hartman 1960, Hibbs 1978) and facilitates both formal and informal attempts to secure wage restraint for the sake of national

economic objectives (Heady 1970, Lange 1981, Cameron 1982, Bruno and Sachs 1985). The dominance of national labor federations over affiliated unions, as part of the definition of corporatism, has been credited with promoting the electoral success of social democratic parties (Korpi 1978, Korpi and Shalev 1980, Stephens 1980), relatively high levels of welfare spending (Wilensky 1976, 1981; Katzenstein 1982; Hicks and Swank 1984) and low levels of civil disturbances (Schmitter 1981). Most generally, Mancur Olson (1982) argues that the more encompassing the union movement, the more concerned with economic efficiency and the less apt to pursue redistributive policies which impose deadweight costs the unions will be.

There is, in sum, a large and growing literature in which union centralization enters as an important independent variable. In addition there are now, as a by-product, a number of studies which present systematic cross-national data on union centralization in the OECD countries (Heady 1970, Windmuller 1975, Wilensky 1976, Cameron 1982, Visser 1983). But there is not much in the way of systematic theory to explain why the unions have established centralized labor federations in seven small nations--Norway, Sweden, Finland, the Netherlands, Belgium, Austria and Israel--and not elsewhere.²

² Frequently attempts to account for cross-national differences in the centralization of the labor movement consist of lists of alternative explanations only slightly shorter than the number of cases to be explained. See, for example, Beyme (1980: 57-64) and Windmuller (1975: 102-104). Both Clegg (1976) and Ingham (1974), however, do offer general explanations. In Clegg's account the principal determinant of the degree of centralization of the unions is the centralization of the business associations, but why employers establish centralized associations in some countries but not in others is not addressed. (To the question of who centralized first there is no general answer though most authors implicitly see the unions as the driving force. See Stephens 1980.) Ingham argues that country size

The approach of this paper rests on two propositions. The first is that whether or not to surrender authority to the national federation over collective bargaining and industrial action is a choice which is made by the affiliated unions. With the exceptions of the Austrian OeGB and the Israeli Histadrut, all of the labor federations of capitalist democracies are truly federative bodies. Workers belong to industrial or craft unions which, unless they choose otherwise, are fully independent organizations. Whether or not to remain affiliated and how much power to give to the national federation are decisions made by the leaders of the national unions. As Windmuller put it: "... the center can exercise only as much authority as the constituent parts are willing to relinquish" (1975: 92).

The second proposition is that the obstacles and inducements to centralize are essentially political rather than economic. The unification of both the unions and business associations on a national scale reflects less the exigencies of their market position than the

and the timing of industrialization are the critical factors. Small, late-industrializers like Sweden, according to Ingham, are characterized by greater industrial concentration, less product differentiation, and greater homogeneity of productive technology, all of which makes for unions and firms which are fewer in number and more similar in composition than countries which are larger and industrialized earlier and more slowly. But the logic whereby concentration, defined to be the percentage of union members in the largest x number of unions, promotes centralization is unclear. Large unions and firms are more able to confront their adversaries without outside help. Indeed, it is the largest unions who generally were most opposed to centralization. (See Blake 1960 on Sweden; Beyme 1980 on Germany.) Galenson (1952), in his comparative study of unions in Scandinavia, concluded that concentration actually inhibits centralization. Nor, as we know from the dilemma of collective action, does greater similarity necessarily produce greater cooperation (Hardin 1982). Ingham's argument, moreover, fails outside of continental Europe. Why don't small late industrializers such as Australia, Canada, New Zealand, and Ireland, not to mention the small countries of Latin America, follow the Nordic pattern.

pattern of political alliances.

This is in opposition to the classical Marxist view in which the organization of workers everywhere into a single unified force is necessary because nothing less could provide lasting gains for any group of workers. Marx shared with other economists of his day the belief that in the long run wages would tend to the level demanded by the least militant or most desperate workers (Blaug 1962). The process of accumulation would continuously replace workers with machines, skilled workers with unskilled workers, men with women and children, everywhere enlarging the mass of unemployed and weakening workers' bargaining positions. Nor could capitalists afford to be benevolent. The whip of competition would force capitalists to exploit to the utmost workers' weakness and drive wages to the minimum, subsistence level. Just as individual workers join together in trade unions because individually they are no match for their employers, so trade unions would join together in a national organization because as individual unions they are no match for the capitalist class. As Engels wrote: "Necessity will force the trade unions to bring to an end, not merely one aspect of competition, but all competition" (1958: 248-9; italics in the original).

ridiculous

In the nineteenth and even early twentieth century, many union organizers came to the same conclusion: the only successful union would be 'One Big Union' for workers in all branches of the economy. Attempts to build a union movement in which workers of all trades and industries would be welcome and united were made repeatedly: in England by the Owenite 'Grand National Consolidated Trades Union' in 1834 and again by

*Syndicalist
view/
not
Marxist*

the 'New Union' movement of 1889-1892 (Pelling 1963, Hobsbawm 1964), in Germany by the Lassalleans following the liberalization of the labor law in 1868 (Landauer 1959), in the United States by the Knights of Labor in the late 1880s and again by the Industrial Workers of the World in the late 1900s (Perlman 1922, Ulman 1955). But all of these movements either failed to survive or, like the 'New Unions' of Great Britain, abandoned their aspirations of uniting workers everywhere (Hobsbawm 1964).

Contrary to Marx and Engels, the unions to achieve durability were those that forsook class solidarity and concentrated on organizing workers of particular occupations or industries. The first to organize successfully were small groups of highly skilled workers, whether in England (Pelling 1963), France (Lorwin 1954), Germany (Landauer 1959), Sweden (Blake 1960), or the United States (Ulman 1955). For such workers, 'One Big Union' meant an alliance with workers in weaker bargaining positions, an alliance in which the skilled workers gained little except the burden of supporting the unskilled. As Ulman wrote of the victory of the AFL over the Knights of Labor:

Undoubtedly the Knights believed that, since an injury to the skilled craftsman was the concern of the unskilled, as well as the other way around, general adoption of the concept of "solidarity" would work to the advantage of all. But the skilled crafts knew better; they knew that it was best to avoid certain entangling alliances, and it was for this reason that they insisted upon trade autonomy. . . (1955: 371).

Nor was the preference of skilled workers for autonomy over solidarity unique to the United States. In Sweden the debate over the power of the central federation split the larger, more powerful unions from those which were smaller and weaker (Blake 1960: 42). While the

weaker unions hoped to gain strength through solidarity, the stronger unions sought to avoid the burden of supporting workers who were less well organized. Efforts made at the constitutional convention to endow the national federation with the prerogative and resources to conduct both offensive and defensive strikes were defeated. As Galenson summarized the outcome: "The Swedish Federation of Labor thus began its existence with very limited authority" (1952: 116). Even still, major unions, including the Metalworkers and the Typographers, refused to join the LO for several years for fear that doing so would jeopardize their freedom of action (Blake 1960).

In fact, with the partial exception of Norway (and, much later, Israel) national union federations began everywhere as weak organizations with limited functions and no authority (Windmuller 1975: 105-6). Moreover, the most prominent exceptions to the segmentation of industrial conflict along occupational and industrial lines, the general strikes of 1902 in Belgium, 1909 in Sweden, 1920 in France, 1921 in Norway, 1926 in Great Britain, and even of 1919 in Seattle demonstrated in their failures [the weakness of class solidarity as a source of strength in battles with employers.] On the other hand, the general strikes conducted against the government in demand of extensions of the franchise in Belgium in 1892 and Sweden in 1902 were successful (Landauer 1959). Then, as now, solidarity is a more potent weapon in politics than in the market.

In most industrial nations today the national labor federation, the organization which represents organized workers as a whole, remains subordinate to the affiliated unions. In his comparative study of

industrial conflict in Sweden and Great Britain, Ingham notes: "After 100 years, the power situation of the TUC in one respect has remained almost unchanged. Neither the General Council nor the Congress has the power to compel unions to take a particular course of action" (1974: 86). The same can be said about the AFL, now the AFL-CIO. While Walter Reuther reportedly sought a more centralized structure in the negotiations between the CIO and the AFL that led to their merger, he was opposed, not only by the AFL, but by some of the largest unions of the CIO (Windmuller 1975: 106). And in Germany during the reconstruction of the union movement in the wake of the devastation of Fascism and World War II, the attempt by Hans Boeckler and other union leaders in the western zones to create a centralized federation was successfully opposed by the leaders of the largest unions (Beyme 1980:9-10).

But, while the union movement was largely decentralized everywhere as late as the 1920s, during the Great Depression and the Second World War the labor federations in a number of the smaller European countries began to increase their role in collective bargaining and their power vis-a-vis the affiliated unions (Windmuller 1975). Frequently the new prominence of the labor federation was embodied in formal agreements with employers: the "Basic Agreement" of 1935 in Norway, the "Saltsjobaden Agreement" of 1938 in Sweden, the "Social Solidarity Pact" of 1945 in Belgium (Katzenstein 1983, Carew 1976). In Norway, Sweden, Finland, Belgium and the Netherlands, the most critical decisions unions face--what to demand in wage bargaining, when to call a strike--were either being directly decided or closely supervised by the

national federations in the name of the labor movement as a whole (Heady 1970, Windmuller 1975, Visser 1983). Moreover, the reconstructed postwar Austrian unions adopted the most highly centralized confederal structure in Western Europe (OECD 1979, Windmuller 1975).

Whether the center of power lies with the leaders of the national unions or with the leaders of the central federation of labor, whether the union movement adopts the organizational principle of solidarity or of the autonomy of national unions, represents a choice unions face. Why unions of different countries have made that choice differently is the central question of this paper.

UNION-FIRM BARGAINING

The key to centralization, I argue, lies in the choices of unions and firms as political actors, that is as agents seeking particular public policies. Which policies unions and employers will find advantageous, however, depends on their position in the market. The political system and the market should be understood as different arenas in which unions and firms pursue of the same objectives. Thus, the first step in the argument is to present a simple model of bargaining between the union and its employers. The model is of the short-run in two senses: both the firms' capital stock and total union membership are exogenous. The second step of the argument will be to use the model of the bargaining outcome to derive implications about the public policies unions and firms will support and the political coalitions they will form.

The questions of what, in fact, are the objectives of unions on the one hand and firms on the other have generated two long debates in the

field of economics (which, curiously, have made little reference to one another). Here I simply take what remains the dominant approach: unions and firms are considered to be perfectly accountable to their constituents. Firms are assumed to maximize profits and unions are assumed to maximize the income of union members.

This view of the union's objectives is at odds with an alternative approach which, in accordance with Michel's 'iron law of oligarchy' (1962), views union leaders as primarily interested in self-enrichment, self-preservation, or in building and defending the union as an organization (Ross 1948, Pizzorno 1978). The critical question, of course, is not whether union leaders are saints or villains but whether they must serve the interests of the rank and file if they are to achieve their personal and organizational goals. In the theory of the firm, there have long been dissenters from the profit-maximizing orthodoxy who have argued the managers follow particularistic interests of their own (Baumol 1959, Marris 1964, Galbraith 1967, Williamson 1964). Nevertheless, most economists continue to adhere to the assumption that firms maximize profits, not because they think managers are selfless, but because managers are considered sufficiently constrained by threats of law suits, takeover bids, and losses of bonus payments and stock options to make profit maximization a good approximation for how firms act. The threats facing union leaders are different but not absent. Labor leaders must anticipate the possibilities of internal electoral opposition, wildcat strikes, and defections to other unions in some countries and to non-union status in most. (The closed shop is illegal everywhere in Europe outside of Great

Britain.)³ Like the assumption of profit-maximization in the theory of the firm, the assumption that unions serve their members is a good enough approximation to be a fruitful point of departure.

To be more precise, I assume that unions maximize the expected income of their members, denoted EI , where

Ross / Dunlop debate

$$(1) \quad EI \equiv \theta w + (1 - \theta)r,$$

and where w is the union wage, r is the reservation wage for union members, and θ is the probability of being employed under the union contract.⁴ The reservation wage is income that union members do not receive while working under the union contract but which they expect to receive if laid off. This can include unemployment compensation, earnings from other jobs, or the monetary value of not having to work. The term r , in other words, is the income forgone or opportunity cost of working in a union job.

Firms, or their bargaining agents, are assumed to maximize profits. Before writing an expression for the firm's profit, however, it is useful to introduce a revenue function:

$$(2) \quad R \equiv R(p, L, q_1, \dots, q_n) = \max_{x_i} pF(L, x_1, \dots, x_n) - \sum q_i x_i$$

³ See Carew (1976) and Lange (1984) for cross-national comparisons of union democracy among European countries.

⁴ This assumption is common. See, for example, Menil (1971) or Lazear (1983). McDonald and Solow (1981) assume the union maximizes the expected utility of union members which, for the purposes of this paper, adds an inessential complication. None of the results are qualitatively altered.

where p is the price the firm receives for its output (which may or may not be dependent on the quantity the firm sells), L is the labor employed by the firm, $q_1 \dots q_n$ is the vector of input prices, $x_1 \dots x_n$ is the vector of input quantities, and $F()$ is a standard short-run production function in which some factors of production are fixed ($F_L > 0$ and $F_{LL} < 0$). The revenue function is the maximum difference between cash inflows and outlays for non-labor costs at any given level of employment. Note that there is no necessary assumption about the firm being a perfect competitor. The results hold for all forms of market structure. The firm's profit π then is the difference between its revenues as defined in equation (2) and its wage bill, or

$$(3) \quad \pi \equiv R - wL.$$

If it is not the individual firm but an employers' association which bargains with the union, then the profits in equation (3) are those earned by all firms who are bound by the particular labor contract. The argument of this chapter applies equally to bargaining at the level of the firm or at the level of the industry.

There are two approaches to the theory of labor negotiations. The first, represented most recently by Lazear (1983) and Oswald (1982a, 1982b), has the union unilaterally choosing its wage demand with employers then choosing the level of employment. In this model there is no real bargaining. The union simply chooses its most preferred wage under the constraint that higher wages cause employers to hire fewer workers. The second, represented by Menil (1971), Hall and Lilien (1979), McDonald and Solow (1981), Aoki (1980, 1982), Svejnar (1982),

Miyazaki (1984), and which I use here, applies models of bargaining derived from the theory of cooperative games.

The first axiom of bargaining theory is that, in the absence of uncertainty, the labor contract be efficient in the sense that neither the union nor its employers can gain without the other losing.⁵ An efficient contract, in other words, is one in which all opportunities for mutual gain have been exhausted. Formally, the set of efficient outcomes is given by the solution to the problem of maximizing the firm's profit under the constraint that the expected income of union members doesn't fall below some level \underline{C} . (It would make no difference if the union members' expected income were maximized under the constraint of a minimal level of profit.) In mathematical notation, this implies maximizing the Lagrangian:

$$\mathcal{L} = R - wL - \lambda\{C - \theta w - (1 - \theta)r\},$$

with the first order conditions:

$$\partial \mathcal{L} / \partial L = R_L - w + \lambda(w - r)(d\theta/dL) = 0, \text{ and}$$

$$\partial \mathcal{L} / \partial w = -L + \lambda\theta = 0.$$

⁵ See Roth (1979) for a survey of cooperative bargaining theory. Bishop (1963) is an especially lucid early review. Recent theoretical work has focused on non-cooperative bargaining with imperfect information in which solutions are no longer efficient (Cramton 1984a, 1984b). I retain the cooperative formulation for two reasons: it is tractable and its basic implication that unionized firms will earn lower profits but differ little from non-union firms in such dimensions as growth, (productivity) and capital-labor ratios has been upheld by empirical research (Clark 1984).

(Note that the subscript \underline{L} is used to denote the partial differentiation with respect to \underline{L} .) The last two equations can be combined into a single condition that an efficient labor agreement must satisfy:

$$(4) \quad R_{\underline{L}} - w + (w - r)(d\theta/dL)(L/\theta) = 0.$$

Leontief, Barg.
If the level of employment did not affect the probability that union members would be laid off then an efficient contract would allow the firm to choose the profit-maximizing level of employment. In other words, if $d\theta/dL = 0$, then the level of employment under an efficient contract will satisfy the standard condition that the wage equal the marginal revenue product, or $R_{\underline{L}} = w$. If the level of employment doesn't affect union members then the union loses nothing by letting the firm have complete discretion over employment. If the level of employment does affect union members, however, then the optimal contract forces the firm to hire more labor than it would like at the prevailing wage rate. If $d\theta/dL > 0$, then $R_{\underline{L}} < w$. Thus, in general, an efficient contract must specify the level of employment as well as the wage rate, a point first noted by Leontief (1946).⁶

⁶ Hall and Lilien (1979) reconciled this theoretical result with the empirical observation that labor contracts generally only specify wages but leave the level of employment to management by analyzing the optimal response of negotiators to the presence of uncertainty about the future state of demand and the future reservation wage, given that it isn't efficient to renegotiate every time conditions change. They demonstrate that in a world in which demand fluctuates more than the reservation wage, the best approximation to an efficient bargain is to leave management the power to expand or contract the labor force in response to changes in demand, but according to rules which maintain greater employment at every level of demand than is optimal for the firm. Organized workers (and even many unorganized workers) do have a voice in the determination of the internal allocation of jobs, manning

One particularly simple specification of the probability of union members losing their jobs is to assume that total union membership N is greater than or equal to the number of union jobs L and all union members face identical probabilities of being the ones to be laid off. Recent work has demonstrated that this obviously unrealistic assumption is more reasonable than it appears. Lazear (1983) has shown that to assume that unions maximize the expected income of workers with identical odds of being laid off is equivalent to assuming that unions maximize the lifetime earnings of workers who are laid off in order of seniority. I assume, therefore, that $\theta = L/N$ for all union members which implies that $(d\theta/dL)(L/\theta) = 1$ and that equation (4) reduces to the condition (Menil 1971, Svejnar 1982, Miyazaki 1984):⁷

$$(5) \quad R_L = r.$$

If union members are equally threatened by layoffs and if the union maximizes their expected income, an efficient contract will specify the level of employment which is identical to the level of employment the firm would choose if it paid the reservation wage, regardless of the actual wage it must pay. Another, more intuitive approach to this result is to consider the aggregate income of union members, denoted \underline{u} , where

levels, the order of layoffs, and supplemental payments to those who are released, either through their union or their representatives in works councils. Clark (1984) found that unionized firms in the United States do not employ fewer workers per unit of capital even though they do pay higher wages.

⁷ An exploration of the case in which workers face no risk of unemployment is contained in Wallerstein (1985a, 1985b).

$$(6) \quad u = wL + r(N - L) = (w - r)L + rN.$$

The aggregate income of union members can be divided into the union wage bill wL and the income received by those who have been laid off $r(N - L)$. Alternatively, the income of union members can be divided between the income available to all rN and the differential gained by the union for its employed members $(w - r)L$. In economic terminology, the term $(w - r)L$ represents the rents gained by the union from its ability to disrupt production. The sum $(w - r)L$ is also the payoff to the union for reaching an agreement with its employers. Assuming that in the event of a strike profit is zero, (production is completely halted and there are no fixed costs), the payoff to the employer for reaching an agreement with the union is simply $\pi = R - wL$. Let the sum of the payoffs to the two sides be called the joint profit. Since,

$$(7) \quad (R - wL) + (w - r)L = R - rL,$$

the joint profit is equal to the difference between the firm's revenue and what labor costs would be if workers were paid the reservation wage. Thus, efficient contracts are those which maximize the joint profit, or which satisfy the first order condition: $R_L = r$. The notion is simple: regardless of how the pot is to be divided, both sides want the pot as large as possible.

The criteria of efficiency specifies that the bargaining outcome lie on the Pareto frontier but it provides no means for determining which particular point will be chosen. In this case the criteria of efficiency is sufficient to fix employment at the level which maximizes the joint profit but it leaves open the wage rate which determines how

that joint profit is to be shared. Here I use the generalized Nash solution whereby the union receives a fixed proportion α of the joint profit, or⁸

$$(w - r)L = \alpha(R - rL), \quad 0 < \alpha < 1,$$

which can be conveniently rewritten as

$$(8) \quad w = \alpha(R/L) + (1 - \alpha)r.$$

The union wage is a weighted average of the average product of labor and the reservation wage. Thus the union wage, in this model, is tied to both the productivity of labor and to wages elsewhere but not to the marginal revenue product. If $\alpha = 1$ the firm is a cooperative in which workers receive all the revenues while if $\alpha = 0$ workers are no better off than if they were unorganized. The mid-point, $\alpha = 1/2$, is Nash's (1950) original solution.

The model of labor bargaining is now complete. There are two equations, (5) and (8), which determine the union wage \underline{w} and union employment \underline{L} as functions of the price of the firm's output \underline{p} , the cost of non-labor inputs $q_1 \dots q_n$, and reservation wage \underline{r} . It is convenient summarize the outcome of the contract negotiations in terms of the income received by the union, u^* , and the firm, π^* . Substituting equation (8) into equations (3) and (6), we have

$$(9) \quad \begin{aligned} u^* &= \alpha(R - rL) + rN, \text{ and} \\ \pi^* &= (1 - \alpha)(R - rL). \end{aligned}$$

⁸ The generalized Nash solution is found by maximizing the product $\{(w - r)L\}^{\alpha} \{R - wL\}^{1-\alpha}$.

Union members altogether receive the sum of their reservation wages rN and their share of the joint profit $\alpha(R - rL)$. The firm receives what remains of the joint profit.

INDUSTRY-SPECIFIC POLICIES

Economists have been largely concerned with the effects of exogenous changes in prices or in the reservation wage on union wages and union employment. McDonald and Solow (1981), for example, use a slightly different formulation to study the signs of the derivatives dL/dp (positive) and dw/dp (indeterminate) to provide an explanation of the stickiness of union wages over the business cycle.

From the vantage point of bilateral bargaining between a union and a firm, the demand for the firm's output, the cost of its inputs, and the reservation wage are exogenous parameters. Within the arena of isolated negotiations involving one union and one (or one group of) firms, both the level of demand and the reservation wage are unalterable. But within the arena of national politics, neither need be taken as given. A myriad of public policies can, and do, have strong effects on both prices and the reservation wage. Since both firms and unions are clearly affected and since both, in democratic regimes, have the capacity to influence public policy to some degree, both have powerful incentives to do so. Variables which are regarded as exogenous by economists who study the outcome of collective bargaining need to be regarded as endogenous by students of political conflict and public policy.

Consider first public policies which restrict foreign trade, whether through the imposition of tariff or non-tariff barriers. The purpose of all trade restrictions is to enhance the demand facing domestic producers. In this respect, trade restrictions are but particular examples of a more general category of public policies that limit or reduce competition. Other examples are many, though not all, government regulations. The core argument of the 'economic' theory of regulation is that the primary function of regulatory agencies is to restrict entry or fix prices for the benefit of the regulated industry (Stigler 1975, Peltzman 1976). Another means by which the government can have a powerful effect upon the demand for an industry's output is tax policy. Some industries, such as the merchant marine in the United States or Swedish shipbuilders in the 1970's, receive direct subsidies (Stigler 1975, Sabel 1982). Others are favored through government procurement policies. The Pentagon buys American coal to heat its European bases in spite of the availability of cheaper European coal in order to keep alive 40 to 45 anthracite coal producers operating in a few Pennsylvania counties (Washington Post National Weekly Edition, April 26, 1984: 6-7).

A common characteristic of policies which serve to protect established firms from competition, whether the threat comes from foreign or domestic producers, is the industrial alliance which stands behind them. Protectionist coalitions are producers' coalitions. Both the Teamsters and the established truckers have fought against the deregulation of the American trucking industry. The United Steel Workers joined the Bethlehem Steel Company in suing the United States government to impose new quotas on steel imports (Washington Post National Weekly Edition, July 2, 1984: 5).

These examples attest to the common impact of protectionist policies on both employers and employees in the protected industry: both benefit. In terms of the model, industry-specific policies have the effect of raising the relative price of the protected product or, in the case of an oligopoly, shifting the demand schedule outward. Thus the impact of a protectionist policy on the union and firms of the protected industry can be read from the partial derivatives:

$$(10) \quad \partial u^*/\partial p = \alpha R_p + (R_L - r)(dL/dp) = \alpha F > 0, \text{ and}$$

$$\partial \pi^*/\partial p = (1 - \alpha)R_p + (R_L - r)(dL/dp) = (1 - \alpha)F > 0.$$

The effect of an increase in the price received by the industry is to increase the joint profit by the amount F which the union and the firm divide according to their respective shares. naïve

An industry may seek policies which raise the demand for its output directly or it may seek policies which increase the demand for downstream producers whom it supplies. The steel lobby in the United States has been one of the strongest backers of continued import quotas for Japanese automobiles (Washington Post National Weekly Edition, June 18, 1984: 22). The producers of synthetic fibers have provided critical support within the European community for protection for textiles and clothing (Verreydt and Waelbroeck 1982).

On the other hand, it is obvious that trade barriers, regulation, and all other policies which raise the relative price for the output of an industry will impose costs elsewhere. Consumers, of course, face a higher price.⁹ Consumers in unprotected sectors who must pay higher

⁹ In fact, equation (10) does not capture all of the relevant changes

prices and don't receive any benefits are unambiguously hurt, but consumers of final goods have not generally proven to be an effective lobby. The per household expenditure on any item is usually small enough to make the costs of organizing in opposition greater than the cost imposed by the higher price (Olson 1965, Stigler 1975). The only union which has opposed protection for automobiles in the United States is the Longshoremen who fear the loss of jobs unloading Japanese cars (Wall Street Journal, September 3, 1982: 6).

A more important source of opposition are firms and unions in industries which use the protected commodity as an input in production. If a proposed policy will raise, not p , the price of the industry's output, but q_i , the price of one of its inputs, then

$$(11) \quad \begin{aligned} \partial u^*/\partial q_i &= -\alpha x_i < 0, \text{ and} \\ \partial \pi^*/\partial q_i &= -(1 - \alpha)x_i < 0, \end{aligned}$$

where x_i is the quantity of the protected input consumed by the industry. The more steel producers and steelworkers gain protection from foreign competition, the more automobile producers and autoworkers will suffer from foreign competition as the relative cost of producing cars domestically increases. In the European Community today, the

since the increased cost to members of any particular union as consumers of the goods they produce must be subtracted from their gains in income. The complete equation is $du^*/dp = \alpha F - D$ where D , the quantity consumed by the industry's workforce, represents the increase in workers' cost of living occasioned by a marginal increase in the price of the output. See Young (1982) for a derivation. (The same, of course, is true for the gains of employers.) In practice it is hard to imagine a case in which the industry's sales to its own workforce is a significant part of its total sales so equation (10) remains a good approximation.

greatest opposition to extensive protection for the steel industry comes from those areas with the greatest dependence on industries which are consumers of steel (Verreydt and Waelbroeck 1982). One of the consistent findings of the econometric studies of tariff rates in different industries is that they are generally higher for producers of final goods who face no downstream opposition than for producers of intermediate goods who do (Michaely 1980).

A second important source of opposition to protectionist policies are industries which are dependent on exports and fear retaliation. The fact that the American army refuses to buy European coal threatens the sales of IBM computers to European governments (Washington Post National Weekly Edition, April 26, 1984: 6-7). Soybean producers in the United States are fighting against import quotas for steel and automobiles, not because they consume large amounts of steel and cars, but because they fear retaliatory action by European soybean importers (Washington Post National Weekly Edition, July 30, 1984: 20). A study by Stephen Magee (1980) of the testimony of unions and business associations in hearings on the Trade Reform Act considered by the United States Congress in 1973 found that the trade balance of an industry had a significant effect on the industry's position on trade policy. Industries which compete with imports were almost all in favor of greater protection. Industries in which the trade balance was positive but small were split, but more likely to be protectionist than not. Industries in which the trade balance was large and positive were all in favor of free trade.

Magee's study is also relevant as a test of the validity of the short-run nature of this analysis of the effects of protectionist

policies, in particular of the assumption that some factors of production are fixed. If all factors of production could be instantly and costlessly moved in search of the highest rate of return, profits could not remain higher in one industry than another. The higher profits made possible by a tariff, for example, would immediately evaporate as other firms rushed to enter the protected sector and gain a share of the above average profits. For this reason, Stigler (1975) and Becker (1983) have emphasized the role of regulation in prohibiting entry rather than simply raising prices.

In the theory of international trade with two factors of production, labor and capital, the assumption of perfect mobility of both between sectors leads to the Stopler-Samuelson theorem that protection is always an issue which divides classes (Stopler and Samuelson 1941). In a world in which rates of profit and wages are equal everywhere within national borders, the effect of policies which raise the relative prices of particular commodities is to increase the real income of the factor which is used intensively in production of the favored goods and to reduce the income of the other factor. Thus employers should favor protection only for capital-intensive industries and unions should favor protection only for industries which are labor intensive. In no case, according to the Stopler-Samuelson theorem, will employers and unions be on the same side.

In the model developed here, with fixed assets and with unions which block the equalization of wage rates, both labor and capital are, in effect, industry specific. Both unions and firms in the same industry either gain or lose from trade restrictions depending on where they are

located vis-a-vis the protected product and on whether they are dependent on export markets. This is the model which Magee's study upholds. He found that in 19 out of 21 industries, the positions of the union and the business association regarding freer trade or greater protection were identical. Protectionist policies, like other sector-specific policies, generally unite unions and employers in the same industry and create divisions within the union movement and among business associations.

WELFARE POLICIES

A second basic category of public policies consists of welfare policies. These are policies which directly provide income through the state, either as transfer payments or as the provision of services below market price. The general expansion of government expenditures is one of the most salient features of public policy among advanced capitalist countries in the postwar period. By 1980 non-defense expenditures had grown to 63% of GNP in Sweden, 57% of GNP in the Netherlands, and 56% of GNP in Denmark. Even in the United States, an austere spender among developed nations, non-defense spending grew 50% faster than GNP between 1960 and 1980. (All figures are from Swank 1984.) And the largest part of this increase in government spending was to fund an unprecedented expansion of welfare programs (Heclo 1981). Among advanced industrial countries, the programs which dominate the welfare budgets (excluding expenditures on education) are pensions and social security, health insurance or health care provision, family allowances, and public housing (Wilensky 1975). All are programs which increase workers'

lifetime income independently of current employment. Let the income from such policies be called the social wage. Less costly in terms of government outlays, although not necessarily less important, are policies which increase the reservation wage such as unemployment insurance and means-tested welfare programs.

To analyze political conflicts over welfare policies it is necessary to consider the taxes which must be levied to finance them. Governments, of course, can finance expenditures by borrowing or printing money as well as by raising taxes, but an increase of the size that has occurred in welfare expenditures must be met largely out of increased tax collection. In order to include taxes in the analysis, however, some assumption about how the tax burden is distributed must be made. The major sources of tax revenue are income taxes, social security taxes, and sales or value-added taxes; these three sources bring in over 80% of total tax revenues in all OECD countries and over 90% in most (OECD 1983: 70). While income taxes are usually progressive, though far less than their nominal rates would imply, the other two major taxes are usually regressive. Studies of the tax burden by income group in the United States have generally concluded that, with the exception of both extremes of the income distribution, all pay roughly the same proportion of their reported earnings (Pechman and Okner 1974, Reynolds and Smolensky 1977, Page 1983). (Those at both tails pay higher taxes in proportion to their earned income.) Nor, in this respect, is the United States particularly regressive. In fact, as Pechman concluded in an address on international trends in taxation and income distribution:

. . . the objectives of progressive taxation are honored only in the breach throughout the world. . . in the United States, taxes are essentially proportional for the vast majority of families and therefore have little effect on the distribution of income. Since the United States relies most heavily on progressive tax sources (perhaps with the exception of Sweden) taxes are probably regressive on balance in most other countries (1983: 5, 8).

Accordingly, the best simple assumption is that households pay taxes in proportion to their taxable income.

Not all income is taxed, however. Income received from the social wage is almost always tax-free. Similarly, much of the reservation wages is made up of transfer payments, the value of leisure and jobs in the underground economy which escape taxation. Here it is assumed, for the sake of simplicity, that all of the reservation wage is untaxed.¹⁰

With welfare payments and a proportional tax on wage and profit income, the after-tax income of union members and employers is:

$$(12) \quad \begin{aligned} u &= (1 - t)wL + (r + v)(N - L) + sN, \text{ and} \\ \pi &= (1 - t)(R - wL) \end{aligned}$$

where \underline{t} is the uniform tax rate, \underline{s} is the social wage--income received from the government independently of current employment--and \underline{v} is the part of the reservation wage that consists of transfer payments. The equations describing the level of employment among union members and union wages become:

$$(13) \quad (1 - t)R_L = r + v, \text{ and}$$

$$(14) \quad w = \alpha(R/L) + (1 - \alpha)(r + v)/(1 - t).$$

¹⁰ The results do not differ significantly if it is assumed instead that some of the reservation wage is taxed as long as not all of it is.

The income received by union members and employers upon signing the labor contract becomes:

$$(15) \quad \begin{aligned} u^* &= \alpha[(1 - t)R - (r + v)L] + (s + v + r)N, \text{ and} \\ \pi^* &= (1 - \alpha)[(1 - t)R - (r + v)L]. \end{aligned}$$

There is also a budget constraint that, at the aggregate level, tax collections must equal welfare expenditures:

$$(16) \quad t \sum R(i) = s \sum N(i) + v \sum [N(i) - L(i)]$$

where revenue, membership and employment are summed over all sectors of the economy.

To see how unions and firms are affected by increases in the social wage, we need to study the derivatives (du^*/ds) and $d\pi^*/ds$. An increase in \underline{s} represents an increase in workers' social wage income. At the same time, however, since welfare expenditures must equal tax revenues, an increase in \underline{s} implies an increase in tax rates which reduces workers' after-tax private income. Moreover, firms will respond to an increase in taxes, ceteris paribus, by reducing production and employment.¹¹

Without loss of generality, let the economy consist of two sectors, one union and one non-union or both organized by separate unions. The two-sector model contains all the complexity of the n-sector case. With \underline{y} held constant, equation (13)--which now consists of two equations, one for each sector--and equation (16) together comprise a system of three

¹¹ Among the things that must be included in the 'ceteris paribus' escape clause are investment tax credits, accelerated depreciation allowances and the other features of the tax system which are used to induce firms to invest in spite of high nominal levels of taxation. See Przeworski and Wallerstein (1985).

equation with four variables: $L(1)$, $L(2)$, \underline{t} and \underline{s} . Differentiating with respect to \underline{s} and collecting the results in matrix form:

$$(17) \begin{bmatrix} (1-t)R_{LL}(1) & 0 & -R_L(1) \\ 0 & (1-t)R_{LL}(2) & -R_L(2) \\ tR_L(1) + v & tR_L(2) + v & \Sigma R \end{bmatrix} \begin{bmatrix} dL(1)/ds \\ dL(2)/ds \\ dt/ds \end{bmatrix} = \begin{bmatrix} 0 \\ 0 \\ \Sigma N \end{bmatrix}$$

The determinant Δ of this matrix is given by the equation:

$$(1-t)^{-1}\Delta = (1-t)\prod_{i=1}^2 R_{LL}(i)\Sigma R(i) + \sum_{i=1}^2 \{R_{LL}(i)R_L(j)(tR_L(j)+v)\}, i \neq j,$$

which consists of two terms of opposite sign (since $R_{LL}(i) < 0$). The first term contains a product of two negative numbers while the second term is a sum of two negative numbers. Which term will dominate depends on the tax rate at which Δ is evaluated. Evaluated at $t = 0$, $\Delta = \prod_{LL} \Sigma R > 0$ since zero taxes implies zero transfer payments or $v = 0$. But as \underline{t} approaches one, the second term of Δ must dominate the first and $\Delta < 0$. At some level of taxation t^* between zero and one, therefore, $\Delta(t^*) = 0$ with $\Delta > 0$ for $t < t^*$.

Applying Cramer's rule:

$$(18) \quad dL(i)/ds = (1-t)\left\{\left[\sum_{i=1}^2 \Sigma N(i)\right]R_L(i)R_{LL}(j)\right\}/\Delta < 0, i \neq j, \text{ and}$$

$$dt/ds = (1-t)^2 \left[\sum_{i=1}^2 \Sigma N(i)\right]\left[\prod_{i=1}^2 R_{LL}(i)\right]/\Delta > 0,$$

for $t < t^*$. At low levels of taxation, taxes must be raised to finance increases in welfare spending and, as taxes go up, employment falls. As welfare expenditures grow, total tax revenues tR must grow, but increases in taxes reduce employment and, hence, output. Thus, while t increases, R falls and the product tR reaches a maximum at the tax rate $t = t^*$. (The existence of a maximum level of tax collection indicates that this model contains a Laffer curve.) Since there is a maximum level of tax receipts $t^*R(t^*)$ there is a maximum feasible social wage $s(t^*)$. As s approaches its maximum value, the determinant Δ approaches zero and the derivative dt/ds approaches positive infinity while the derivative $dL(i)/ds$ approaches negative infinity.

As it is assumed in the definition of π that firms pay taxes but do not receive benefits from the programs which make up the social wage, it is obvious that the interests of firms are in minimizing government expenditures of this type. For unions on the other hand, since their membership both benefits and pays taxes, the results are more interesting. Differentiating $u^*(i)$ and $\pi^*(i)$ with respect to s :

$$(19) \quad \begin{aligned} du^*(i)/ds &= N(i) - \alpha(i)R(i)(dt/ds), \text{ and} \\ d\pi^*(i)/ds &= -[1 - \alpha(i)]R(i)(dt/ds). \end{aligned}$$

At $t = 0$, $\Delta = \Pi R_{LL} \Sigma R$ and $dt/ds = \Sigma N / \Sigma R$ so equation (19) reduces to:

$$(20) \quad \left. \frac{du^*(i)}{ds} \right|_{t=0} = N(i) - \alpha(i) \left(\frac{\Sigma N}{\Sigma R} \right) R(i), \text{ and}$$

$$(21) \quad \left. \frac{d\pi^*(i)}{ds} \right|_{t=0} = -[1 - \alpha(i)] \left(\frac{\Sigma N}{\Sigma R} \right) R(i).$$

Union members will benefit from an increase in welfare expenditures as long as the value added per union member relative to aggregate value added-- $(N/R)/(\Sigma N/\Sigma R)$ --is greater than α , the union's share of the joint profits.¹² In the aggregate, the amount by which profits decline exactly equals the amount by which wage earners gain.

For $t > 0$, there is a deadweight loss as firms' losses exceed workers' gains:

$$(22) \quad \Sigma \left\{ \frac{d\pi^*(i)}{ds} + \frac{du^*(i)}{ds} \right\} = \Sigma N(i) - \left(\frac{dt}{ds} \right) \Sigma R(i) = \Sigma \left\{ \frac{dL(i)}{ds} [tR(i) + v] \right\} < 0.$$

Moreover, this loss increases as t increases. More importantly from the unions' point of view, the gain in income received by their members declines and eventually becomes negative when taxes cross some threshold $t < t^*$. (Since the derivative $d^2t/ds^2 < 0$ and approaches negative infinity as t approaches t^* , the costs of an increase in social wage expenditures-- $\alpha(i)R(i)(dt/ds)$ --begin to outweigh the benefits-- $N(i)$ --before t^* is reached.)

At $\alpha = 0$ workers' after-tax wages are determined by the untaxed reservation wage. Any increase in taxes must be matched by an equal increase in pre-tax wages or the firm could not keep its workforce. Such workers would favor an expansion of welfare expenditures up to the maximum sustainable level given by $t = t^*$. Workers, on the other hand, who receive a share of the joint profits, that is for whom $\alpha > 0$, also

¹² The term R/N is related to the productivity of union members but it is neither equal to productivity as it is commonly measured (R/L) nor equal to true productivity $\{R + (N - L)r\}/N$ which includes the contribution of unemployed union members who take temporary jobs or the value of their leisure time.

pay a share of the tax burden and will oppose increases in the social wage that necessitate taxes higher than τ , which is less than t^* . The location of τ depends on what share of the joint profits they receive. The higher the value of α , the lower is their threshold τ . The closer workers come to capturing the entire joint profits of the firm, the more their interests come to coincide with employers everywhere.

The analysis of policies which increase the reservation wage is too similar to the analysis of social wage increases to bear repeating. Both social wage and reservation wage policies constitute simple transfers from employers to workers when taxes are minimal. As the welfare state expands, the increase in taxes necessary to finance an additional unit of state provided income becomes increasingly onerous. Musgrave has written that: "As redistributive programs expand. . . the dividing line between those who gain and those who lose from redistribution moves down the income scale" (1980: 385). That is exactly the result here. Those unions with the highest value added per member and who capture the largest share of the joint profits of their industry are the first to oppose increases in welfare spending. As welfare spending grows, an increasing number of unions find their optimal level of welfare spending is being approached or even surpassed. Because unions share in the profits of their industry, their interests in welfare spending occupy a middle ground between firms, which always favor reductions in taxation and welfare expenditures, and unorganized workers, who always benefit from increases in welfare expenditures.

Neither welfare policies nor protectionist policies nor anti-welfare policies nor free trade policies constitute Pareto improvements. All

produce losers as well as winners. This is an obvious yet frequently neglected point. There is a general presupposition that subsidies, tariffs, restrictions on entry, etc., as well as taxes, produce deadweight losses, that is, aggregate losses of greater magnitude than aggregate gains.¹³ If all sectors agreed to a mutual abandonment of all trade barriers, national income would increase, but this is not to say that all members of society would be better off. There are neither theoretical nor empirical grounds for believing that all workers and firms in protected industries would lose less from the loss of their protection than they would gain from the absence of trade restrictions in all other sectors. Similarly, while it follows from the model that a reduction in welfare spending will increase national income, it also follows from the model that when taxes are moderate, most workers would be less well off than before.

SOLIDARITY AND TRADE DEPENDENCE

Why have the unions of the Nordic countries (with the exception of Denmark), the Low countries and Austria adopted a highly centralized structure where the most important decisions--what demands to make in labor negotiations, whether or not to strike--are usually made by the national union federation? And why have the unions of other advanced capitalist democracies generally resisted such restrictions of their

¹³ Deadweight losses are always produced if the starting point is a state of perfect competition. If it isn't, it is possible that new 'distortions' will counterbalance old 'distortions' in such a way as to increase overall efficiency. See Lipsey and Lancaster (1956). On the other hand, Mancur Olson (1982) argues that the static distortions in the allocation of resources produced by protectionist policies are much less important than the detrimental effects on economic growth.

autonomy? The preceding analysis suggests that the answer lies in two characteristics which differentiate the economies of the two sets of countries. As shown in the table, those countries with highly centralized union movements are all (except for Israel) small and exceptionally dependent on industrial exports. In contrast, those countries in which the union federations are not highly centralized are all (with the exception of Switzerland) either large or specialized in the export of agricultural commodities.

TABLE 1

CLASSIFICATION OF COUNTRIES BY SIZE AND DEPENDENCE ON INDUSTRIAL EXPORTS
IN 1960

Small		Large	
High Trade Dependence	Low Trade Dependence	High Trade Dependence	Low Trade Dependence
Austria (23)*	Australia (11)	Germany (19)	Canada (14)
Belgium (34)*	Denmark (14)	UK (19)	France (13)
Finland (23)*	Ireland (12)		Italy (12)
Netherlands (36)*	Israel (9)*		Japan (10)
Norway (33)*	New Zealand (11)		US (4)
Sweden (23)*			
Switzerland (28)			

Notes: A star indicates countries with highly centralized union federations. The numbers in the parentheses are industrial exports as a percentage of GDP, where industrial exports are defined to be merchandise exports other than foodstuffs and beverages. (SITC groups 0, 1, 22 and 4 were excluded). Large countries had a 1960 GDP larger than 32 billion US dollars. Small countries had a 1960 GDP less than 16 billion US dollars. Figures for Belgium include Luxembourg. Sources: World Bank (1976: 448-455) for data on exports; Heady (1970), Windmuller (1975), Wilensky (1976), Cameron (1982) and Visser (1983) for data on union centralization.

The effect of a small domestic market and a specialization in non-agricultural exports is to constrain the range of viable political strategies for both organized labor and firms. Unions in all countries seek government policies which will augment or protect the income of their members. Such policies may benefit workers in one sector at the possible expense of workers in other branches of the economy, or they may be policies, such as welfare, in which the costs and benefits fall along income and class lines.

Unions do not have to choose between welfare and sector-specific policies. They can, and do, obtain some of both. An example of an immaculate free trade regime cannot be found anywhere among advanced capitalist countries. (Of course, as emphasized earlier, unions are not the only or necessarily the primary beneficiary of protectionist policies.) Nor is there a single advanced capitalist democracy in which welfare expenditures have not grown more rapidly than national income in the postwar period. But the relative mix of protection and welfare does vary greatly and the choice of a decentralized or centralized federation makes a difference in the mix that can be achieved.

A decentralized federation allows its constituent unions to shift back and forth between an alliance with their employers and an alliance with other unions. Together with firms, unions fight for protectionist and other industry-specific demand enhancing policies; with other unions they support welfare and other policies in which unions throughout the economy have a common interest. A centralized federation, on the other hand, binds unions in a class coalition and makes more difficult the pursuit of sectoral policies in which the interests of workers in

different industries do not coincide. It is not that national federations never support policies in which some unions gain and others lose. But if such policies are prominent in the political agenda, the voluntary abdication of authority by independent unions to a national federation is unlikely. Unions which seek industry-specific policies have good reason to fear that the national federation, beholden to the entire labor movement, will not represent their particular interests well. Class-based organizations are not reliable instruments for the pursuit of sectoral advantage.

Recall the finding of Stephen Magee (1980) that American unions and business associations in import-competing supported greater protection while unions and firms in net-exporting industries were divided. In large countries--the United States, Japan, Great Britain, France, Germany, and Italy--even exporting industries may well favor protection which allows them to raise domestic prices, particularly if exports constitute a small share of sales. In small countries which have relied on agricultural exports while industrializing through import substitution--Canada, Ireland, Australia, New Zealand, and Denmark--most industries are import-competing. In small countries which rely on exports of non-agricultural products--Norway, Sweden, Finland, Belgium, the Netherlands, Austria, and Switzerland--the dominant industries are net exporters. Such industries would be more devoted free traders than the net exporting industries of large countries because, with a small domestic market, the potential gains from price discrimination are limited and the threat of retaliation and loss of foreign markets is more serious. According to Katzenstein (1983, 1985), this last group of

countries have been distinctive in their adherence to the principles of free trade in the postwar period.¹⁴

Moreover, sector-specific policies of all types are severely limited under a free-trade regime. Free trade renders ineffective or more costly all anti-competitive policies (Olson 1982). To give an example recently noted by the American National Machine Tool Builders Association, in the absence of trade protection, any increase in orders for capital goods occasioned by changes in the tax system to encourage investment in fixed capital will go to foreign firms if the domestic industry is not competitive (Wall Street Journal, Jan. 27, 1983: 31). Barriers to entry, to take another example, mean little unless they keep out foreign producers as well. As Mancur Olson has written: "A monopoly of a small part of an integrated market is, of course, not a monopoly at all" (1982: 125). Conversely, an industry protected from international competition will suffer less from trade restrictions which raise the cost of its inputs than industries which must compete with foreign producers.

When demand is largely external, there is little the government can do to increase it other than offer export subsidies which invite retaliation. And support for free trade policies, in turn, removes the motive for participating in political alliances along sectoral lines. To put it another way, the opportunity cost of vesting increased authority in the national union federation is the expected gain of strategies which are thereby forgone. This opportunity cost is lower

¹⁴ To be more exact, Katzenstein contrasts the freer trade policies followed by Norway, Sweden, Belgium, the Netherlands, Austria, Switzerland and Denmark with the larger OECD countries.

for unions in export-dependent industries. Unions and firms are unlikely to cede authority to national federations where much of political conflict occurs over protectionist and other anti-competitive policies which create divisions among unions and among firms located in different industries. Liberal trade policies which limit the scope of anti-competitive policies also limit the intra-class cleavages which such policies generate. The argument, in its simplest form, is that unions whose jobs depend on sales abroad are natural supporters of free trade and have the least to lose from giving up their autonomy.¹⁵

The principal benefit unions obtain by unifying at the national level is an increase in political power. In particular, centralization made possible a 'political exchange' (Pizzorno 1978) whereby the unions offered wage restraint for an expansion of welfare programs. Welfare programs are generally not limited to workers of a particular industry. Although it is easy to think of exceptions--medical benefits for victims of particular occupations diseases, for example--the vast majority of welfare expenditures are disbursed through programs available to workers of all sectors: national pensions, general health care or health insurance, public housing, and family allowances. That is to say, welfare policies are largely set up as public goods. In fact, since an important benefit of the welfare system is the universality of coverage,

¹⁵ Support for free trade is predicated on the continual existence of export markets. When such markets collapse dramatically, as was the case for the Swedish shipbuilding and steel industries in the late 1970s for example, unions and shareholders have turned to the government for rescue. And, as would be expected from the argument here, as export markets declined precipitously in Sweden and government subsidies grew by 250% from 1970 to 1980 (Anton 1984), the authority of the national union federation has declined (Pontusson 1984). See Wallerstein (1985a, 1985b) for a discussion of this point.

a degree of publicness in the provision of welfare is inevitable. One of the benefits to union members of having health care and pensions provided by the government is that coverage no longer depends on continual employment or on employers' continual solvency. In the absence of centralized bargaining, every union would have an incentive, and could find some justification, for seeking to exempt itself from any national agreement to exchange wage restraint for welfare expansion. One union's wages are below the national union average and feels that the members of other better paid unions should bear the brunt of restraint. Another union argues that its members' wages, while admittedly high, are no longer commensurate with the difficulty of the work or the level of skill required. Only with a centralization of wage bargaining under the authority of the national federation can the unions collectively deliver wage restraint in return for favorable public policies. As Heady (1970) was the first to argue, only highly centralized federations have successfully cooperated with incomes policies. What unions gain from centralization is the ability to offer to the government cooperation on a national scale in exchange for policies which the unions want.¹⁶

¹⁶ This, I would argue, is the explanation of the conclusion by Wilensky (1976, 1981) and Katzenstein (1982) that the existence of a corporatist structure of interest representation and policy formation is the most important distinguishing characteristic of those countries in which the postwar growth of welfare expenditures has been exceptionally large. Similarly, Cameron's (1978) conclusion that economic openness is the most important determinant of welfare state expansion can be explained by the connection between openness and the centralization of the union movement.

It must be clarified, since the point is often misunderstood, that the argument here is not that solidarity among trade unions constitutes the Pareto superior but unstable cooperative solution of a prisoners' dilemma game. It would be a prisoners' dilemma if (1) each union would gain if it alone received protection and (2) all organized workers would be better off if all unions agreed to forsake industrial alliances and cooperate in the pursuit of welfare policies and other common political interests. However, the dominance for all unions of mutual cooperation (a class-based alliance) over mutual defection (industrial alliances) cannot be deduced from the assumptions of the formal analysis nor is it supported by any empirical evidence. My argument is that the countries in which unions chose to institutionalize mutual cooperation are those in which strategies of defection were largely foreclosed by their dependence on foreign markets.

Finally, the explanation being offered here is not one which specifies the events which prompted individual unions to relinquish their authority. There is no evidence of a sudden increase in the importance of exports markets during or immediately before the years in which the union federations adopted centralized structures.¹⁷ Rather, the attempt is to identify those conditions which curtail divisions

¹⁷ There is evidence of high levels of dependence on non-agricultural exports predating the centralization of the union movement, thus ruling out a causal link running exclusively in the opposite direction from union centralization to freer trade policies to growth of exports. In 1927, a decade before unions centralized anywhere, non-agricultural exports averaged 21% of GNP in Austria, Belgium, Finland, Netherlands, Norway and Sweden--countries in which the union movement became highly centralized. The average proportion of industrial exports in the other advanced capitalist countries in 1927 (that is all other countries listed in Table 1 with the exception of Israel) was 7% of GNP. See Wallerstein (1985a: 162).

between unions of different sectors and thus render less important each unions' independence. It is an explanation of when union centralization is feasible or, in other words, of when the material foundations of solidarity are present.

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