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What do Unions Do in Europe?

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What do Unions Do in Europe?[*]

Prospects and challenges for union presence and union influence

A Report for the Fondazione RODOLFO DEBENEDETTI

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1. Introduction

There are a number of crucial questions concerning the role and the authority of trade unions in Europe at the turn of the century. Among the issues:

■   *Is union membership decline in Europe inevitable?*

■   *Will deepening European economic integration render unions powerless when bargaining with employers?*

■   *How might European monetary unification affect labour market bargaining outcomes?*

■   *What is the importance of bargaining coordination and centralisation and is the level of coordination/centralisation likely to change in the changing economic environment in Europe?*

■   *How might unions respond to the new challenges and the new opportunities that confront them?*

■   *What are the prospects for unions of retaining, or even extending, their spheres of political and economic influence in Europe in the decades ahead?*

In the context of these crucial issues, our Report is concerned with documenting the extent and diversity of trade union representation in European labour markets at the start of the new millennium, with assessing the nature of union influence in Europe and with drawing lessons for the likely prospects and challenges facing European at this time. Sections 2 and 3 of the report chart the decline in union density experienced by most European countries in the last two decades of the 20th century, and posit a number of reasons for this decline. Section 4 is concerned with examining the determinants of union power and assessing the possible

impact of European economic integration on union prospects for influencing wage bargaining. In Section 5 we look at other important aspects of union strength - such as the extent of union coverage of collective bargains; the degree of co-ordination in wage bargaining of unions or employers groups or both; and the degree of centralisation of such wage bargaining. We also consider distributional consequences of trade unions. Section 6 then focuses on one of the most important aspects of union presence: the extent of bargaining coordination. The section analyses the impact of unions on aggregate wage levels and unemployment, and how this impact varies with the extent of coordination. We document the importance and implications of various combinations of union coordination and centralisation, and emphasise their channels of influence on macroeconomic outcomes.

More precisely, Section 2 charts patterns in union membership across European countries over time and addresses the question of whether Europe's unions have been in decline in the closing years of the 20th century. We show that union decline has continued through the 1980s and into the 1990s in the European Union, as in the United States (and as in Japan). Unionization in Western Europe is now 12 percentage points below its post-war peak of 44 percent in 1979, and is now lower than at any time since 1960. Yet, average union density in the EU is still more than twice the level of unionization in the US (and about 10 percentage points above the level in Japan). However, even in the Nordic countries union growth has halted. Since unification and the take-over of the unions from the former GDR, German unions have lost more than three million members, while existing bargaining structures are eroding. Union decline in Britain and France has continued. The Austrian, Irish or Italian unions are in a stronger position but lost considerable terrain. Dutch and Swiss unions have at best stabilized their position—at a much lower level of unionization than in the past. The section then examines possible explanations for union growth and decline and group these within one of three approaches: cyclical, structural, and institutional. One of the conclusions of this section is that cyclical and structural approaches cannot explain the cross-national diversity in union membership patterns as trends and cycles are too similar between European countries. This puts some weight on the importance of institutional explanations concerning factors such as recognition, centralisation and coverage rules. The section concludes that unions must, in order to survive and thrive, put forward practical programs of

action that (a) benefit their members or potential members (b) solve problems in the broader society - often, problems of capitalists on whose well-being the rest of society depends, and (c) achieve economic benefits, political credit and social respect to secure support for their own organization. Unions, therefore, must tread a path that involves them playing the roles of, in the framework offered by Hyman: service-providers, partners in productivity coalitions, social-pact partners, and a social movement. Marrying these roles successfully will not be simple!

In Section 3 we use a business cycle approach to study the determinants of union density over the period 1960-95. We find that union density is significantly affected by labour market slack and by compositional effects. For a subset of countries, we also show that the sectoral changing composition (the decline of manufacturing industry and the increase in private services) and increased flexibility in the labour market have an adverse effect on union density. The section suggests that the future for European unions may appear less gloomy – from the union perspective - than suggested at first glance. Two offsetting tendencies are at work here: if improved macroeconomic conditions were to provide labour demand expansion, we would expect a reduction in unemployment and, other things being constant, an increase in membership. On the other hand, increased labour market participation (especially in southern European countries) brings to the labour market people who are employed in more precarious jobs (like the retailing sector). The overall impact is hard to predict. The experience of Nordic countries suggests that there is a potential role for unions even under adverse labour market conditions, provided that unions are concerned with the entire labour force, and are able to provide services to both the employed and unemployed. This may be beneficial, because it creates a precondition for wage bargaining co-ordination, argued in other sections to have positive macroeconomic effects.

Section 4 examines the determinants of union influence over wages and focuses on the likely impact of trade and economic integration on the capacity of unions to exert an influence on bargained outcomes. We argue that two principal conditions must be met: first that there is some surplus to share and second that union bargaining power is substantial. The existence of

any surplus will depend primarily on the extent of product market competition. Much of the single market programme is aimed at generating intensified European competition and if this occurs, monopoly-like profits should fall, thereby squeezing the capacity of unions to raise wages above non-union or competitive levels. Against this tendency, however, European integration also facilitates the strategies of transnational firms, and enables them to establish product market domination across Europe. This raises new challenges both to European policy makers and to unions. On the one hand, the development of pan-European monopoly raises the likelihood that big firms will enjoy large profits and hence generates potentially rich rewards to powerful unions. On the other hand, the international basis of these firms enables them to switch production and hence, potentially, undermines the bargaining position of unions. Thus, policy-makers should not be complacent about the implications of integration for competition - and the consequent impact on the labour market. Instead, industrial and competition policy at the European level will have to be pro-active in enhancing the prospects for increased competition in European product markets.

Section 5 documents the relationship between various measures of centralisation/ coordination and union density. This section describes the various social pacts, tripartite structures etc operating across different European countries, and provides a detailed account of European bargaining structures. Section 6 then focuses on one of the most important aspects of union presence: the extent of bargaining coordination. The section analyses the impact of unions on aggregate wage levels and unemployment and argues that the degree of bargaining coordination may have both a direct effect on wage setting and an indirect effect because it interacts with other factors, such as monetary policy, taxes and macroeconomic shocks. The evidence seems to suggest that highly coordinated bargaining is associated with substantially lower unemployment than decentralised bargaining when other factors are controlled for. Differences in the degree of bargaining coordination seem also to have larger unemployment effects than differences in union density and coverage. This suggests that a change from systems with both high coordination and unionisation to systems with both decentralised bargaining and low unionisation might lead to adverse unemployment consequences in the absence of other changes in labour-market institutions.

While sections 2 and 3 emphasise the factors contributing to union density decline over the last few decades of the 20th century while Section 5 suggests that there is no clear adverse trend in the 1990s in other important indicators of union influence – such as in coverage, coordination and centralisation.

What are the scenarios for collective bargaining in the future?

We distinguish four different possibilities for the future evolution of collective bargaining in Europe. These are: (1) a continued trend towards more decentralisation of bargaining to firm and local levels; (2) a development where tensions in the monetary union promote national coordination attempts very much along the lines of the social pacts of recent years in some countries; (3) a movement towards high-level transnational coordination of bargaining; and (4) a development where decentralisation to the firm level is combined with transnational co-operation within large transnational firms: a kind of transnational coordination from below. We examine each of these in turn and attempt to evaluate which of them are the most probable.

We acknowledge that the future industrial relations systems in the European economies will be the outcome of a complex set of influences. As there are conflicting forces at work, it is not evident how the future bargaining system will evolve. However, our assesment is that the forces working in the direction of decentralised bargaining at the level of the firm or work place are very strong. Lower unionisation, an increasing importance for smaller and medium-sized firms related to the service sector, a greater heterogeneity among both firms and employees and a trend towards more local pay incentive systems all provide strong incentives for such a development. The move towards decentralisation is likely to be driven by the employer side, with unions mainly having to adapt to a new situation.

On the other hand, monetary unification in Europe creates incentives for more of national coordination as a means of substituting nominal wage flexibility for monetary policy

autonomy. In a setting where the levels at which formal bargaining occurs are being decentralised, such coordination is likely to be of a more informal character within social pacts of the type that have occurred in several European countries in recent years. However, there will be strong contradictions between any such attempts at national coordination and the likely development towards lower unionisation, less coverage of union contracts and decentralisation of formal bargaining levels. Similarly, increased European integration could provide another challenge to national coordination by weakening the national ties of both unions and employers.

We conclude that the most probable development may well be scenario 4 - a combination of decentralisation and transnational bargaining within transnational firms, with unions cooperating across production units in different countries within large transnational firms. The European Works Councils may serve as a model for this kind of development. This scenario represents an alternative way towards transnational union cooperation than the one that is usually discussed. But it may be more realistic to build such cooperation from the bottom-up rather than from the top-down.

2. Did Europe's Unions Decline?

This section addresses the question of whether Europe's unions have been in decline in the closing years of the 20th century. Union decline can mean various things: membership, market share, resources, militancy, bargaining power, political clout, representation, or public approval. It is impossible to treat all these aspects in our report, but it is nevertheless important to *distinguish* between these various aspects. Membership decline does not need to imply a decline on all of the other dimensions, although it often does (Visser, 1992). The study of absolute and relative membership trends is a good starting point for the study of trade unions, their influence in labour markets and standing in society (Bain and Price, 1980).

Did membership decline? To answer that question we will consider net density rates, or membership as a share of wage earners and salaries of employees in employment—without retired, unemployed or self-employed union members. The membership data is from the DUES ('Development of Unions in European Societies') project (Ebbinghaus and Visser, 2000; and CD-ROM). The labour force data (wage and salary earners in employment) is from the OECD's Labour Force Statistics.

In 1991 the OECD published a survey of trends in union membership and union density during the 1970s and 1980s (Visser, 1991). One of its main conclusions was that in all but a few countries (Sweden, Denmark, Finland, Norway, Belgium and Canada) the post-war expansion of trade union organisation had halted and turned into decline in the 1980s, sharply contrasting what had in Europe been the main trend in preceding decades. On the basis of new data we are in a position to observe developments in the 1990s.

2.1. The weakening of Organized Labour in Europe

Our first step is to look at general European trends, in comparison with the US and without making distinctions within (Western) Europe. Figure 2.1 clearly confirms the trend reversal of the early 1980s. Union decline has continued in the 1990s in both the European Union and the United States (and in Japan). Unionization in Western Europe is now 12 percentage points below its post-war peak of 44 percent in 1979, and is now lower than at any

time since 1960. Yet, average union density in the EU is still more than twice the level of unionization in the US (and about 10 percentage points above the level in Japan).


Figure 2.1: Unionization EU-US
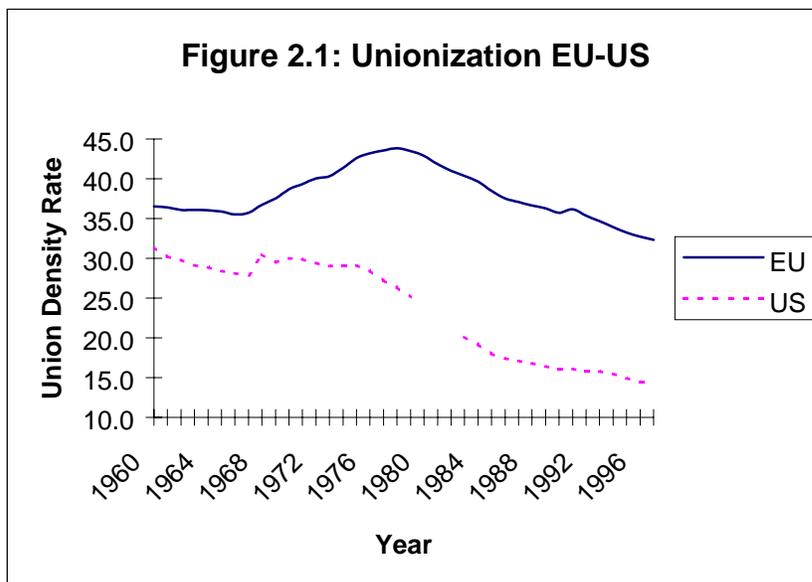
Note: the EU rate is a weighted average of 13 countries, i.e. all fifteen current Member States except Greece, Portugal, Spain and Luxembourg, but with Norway and Switzerland. With the four excluded countries (for which no continuous data are available) the current EU density rate would be a few percentage points lower.

The reversal in unionization trends is paralleled in three other indicators of union power: the decline in militancy, decreasing wage shares and the rise in unemployment in Europe. The return to labour quiescence (Shalev, 1992), begun in 1979, has continued in the 1990s. In the European Union the number of working days lost as a result of labour conflicts has dropped from 85 million in 1979 to less than 7 million in 1996 (Figure 2.2). Shalev underscores the connection with the rise in unemployment after the mid 1970s and observes that 'in nearly all countries where data on the number of strikes are available and there are enough data to justify the analysis we find an evident fit between general trends in strikes and the rate of unemployment. Once unemployment began its steady rise above the customary levels of the 'Golden Age', an equally steady decline in strike frequency was not far behind' (Shalev, 1992: 115). The easing of the trend towards higher unemployment in the later 1980s did not lead to a reversal of the trend in declining militancy. On this basis, Shalev (1992: 117) conjectures that the new labour quiescence, at least in the market sector, is 'more than a simple conjunctural

response'.

The most significant shift in the 1980s was probably the change in macroeconomic policy, when governments and central banks, with few exceptions (Sweden, for instance), adopted a non-accommodating monetarist stance. This came after the failure of most incomes policies and the inability of trade unions, with few exceptions (Austria, Norway), to deliver restraint (Flanagan, Soskice and Ulman, 1983; Scharpf, 1991; Scharpf and Schmid, forthcoming). In Western Europe, the adjustment policies of the 1980s were based on 'high rates of interest, high and non-productive expenditure for compensation to the unemployed, and high unit costs through low-capacity utilization. Thus, the anti-inflationary effect depends solely upon wage restraint forced upon workers through unemployment. This is a very costly method for fighting inflation, in both economic and social terms' (Rehn, 1987: 72).

Figure 2.2: Working days lost through strikes in the EU (in millions)
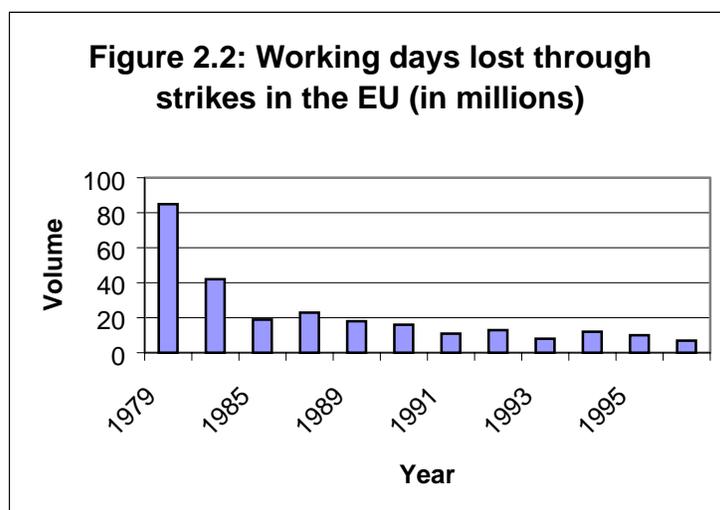
Source: CEC, 2000; calculated from ILO data

The steep rise in real compensation (corrected for inflation) from the mid-1960s till the late 1970s came to a halt in the 1980s. As in the case of the convergence to low inflation rates, the cross-national convergence to moderation is much stronger than is shown in the data on unionization. In the past two decades, the rate of increase in real wages has decreased in all EU Member States. Lower real wage increases reflect reduced productivity growth and a lagging of real wage increases behind productivity (CEC, 2000: 78). Consequently, unit

labour costs have fallen, by about six per cent between 1991 and 1998, against a small rise in the US. This development is expressed in a fall in the wage share (or its opposite, a rise in the profit share), which again shows a sharp reversal of trend around 1980 (Figure 2.3). The fall in the wage share (adjusted for shifts between wage earners and the self-employed) has intensified in the EU in recent years.

At first, the U-turns of the 1980s were interpreted as a 'return to normality', correcting the 'excessive' trends in union growth, militancy and union power of the 1970s (Baglioni and Crouch, 1990). Moreover, many writers drew attention to cross-national variation in these trends (Table 1). Unions in Europe still fare much better than in the US, Japan, or the rest of the world (ILO, 1997). Not all West European union movements were affected by the decline. Nordic and Belgian unions escaped the trend; German unions seemed able to defend their position during the Kohl administration; Spanish unions rebounded from a very deep crisis; the French case of 'desyndicalisation' seemed unique. Some authors highlight the continuity in labour market institutions like collective bargaining, with union coverage rates much above union density rates (Wallerstein, Golden and Lange, 1997; Traxler, 1994; 1996).
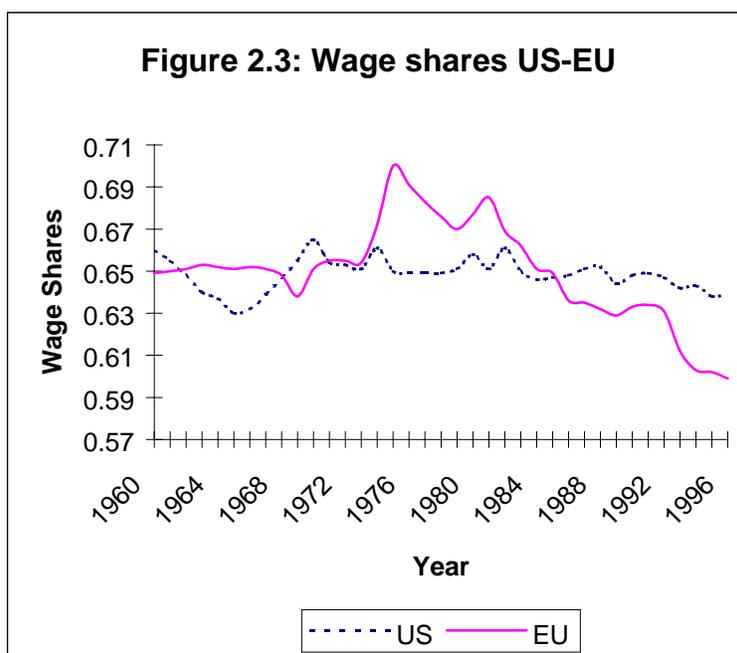
Source: CEC, 2000; calculated from national account statistics

2.3 Crossnational variation

Against the early alarmist views of Edwards, Garonna and Tödling (1986) and Goldfield (1987), based on US and UK data, we have the much more reassuring views of Freeman (1990; 1993), or Golden, Wallerstein, and Lange (1999). On the basis of 1980s trends, Golden et al (1999: 223) conclude that 'our data support the view that industrial relations institutions and trade unions have by and large been quite resilient in the face of considerable domestic and international economic pressures in the past two decades'. But trends in the 1990s proved them wrong. Even in the Nordic countries union growth has halted (in absolute and relative terms). Since unification and the take-over of the unions from the former GDR, German unions have lost more than three million members, while existing bargaining structures are eroding. Union decline in Britain and France has continued. The Austrian, Irish or Italian unions are in a stronger position but lost considerable terrain. Dutch and Swiss unions have at best stabilized their position—at a much lower level of unionization than in the past (Table 2.1)

Table 2.1. Union Density Rates, 1950-1997

	1950	1960	1970	1975	1980	1985	1990	1995	1997
Sweden	67	71	67	73	78	82	82	88	86
Finland	30	32	51	65	69	69	73	89	78
Denmark	56	62	63	69	79	78	75	77	76
Norway	45	52	50	52	55	56	56	55	55
Belgium	43	42	42	52	53	51	50	53	..
Ireland	42	50	59	62	64	63	59	52	..
Austria	62	60	57	53	52	52	47	41	39
Italy	45	28	37	48	50	42	39	39	37
United Kingdom	45	45	50	54	56	50	43	36	..
Great Britain	44	44	47	50	52	43	38	32	30
Germany	..	..	..	..	..	..	36	29	27
Germany (West)	38	35	32	35	35	34	32	..	..
Germany (East)	..	..	..	..	..	..	47	..	
Portugal	..	..	..	..	52	..	40	30	..

Netherlands	<u>43</u>	42	37	38	35	28	24	24	24
Switzerland	<u>40</u>	39	30	32	31	28	27	24	23
Greece	..	..	..	36..	36	<u>37</u>	34	24	..
Spain	..	..	..	<u>30</u>	8	10	12	18	17
France	<u>30</u>	24	20	22	22	19	14	10	10

Source: Ebbinghaus and Visser, 2000; peaks in union membership are underlined.

2.4 Explanations: cyclical, structural and institutional

Explanations for union growth and decline fall, by and large, within one of three approaches: cyclical, structural, and institutional (Ebbinghaus and Visser, 1999). Historians and economists advocated the *cyclical* approach (Commons et al., 1918). They saw a regular pattern of 'ups and downs' in the union movement that followed the alternations of economic prosperity and depression. Unemployment is often seen as a major constraint on union growth and bargaining power. The long-term unemployed usually quit membership, even when unions offer lower subscription rates. Unemployment raises the costs and lowers the benefits of union membership for workers; membership becomes relatively more costly and unions can achieve less. Moreover, unemployment tends to make recruitment more expensive for unions since it raises the capacity of employers to resist union organizing and increases fear among workers to demonstrate solidarity. Since the mid 1970s trade unions faced a more adverse economic climate in Western Europe—unemployment climbed to higher levels after each recession. On average, the unemployment rate in Western Europe doubled from 1970 to 1985, reaching 7.5% and climbing to 11% in 1995, with large cross-national variations.

In econometric models—using aggregate unemployment and union density rates—unemployment turns out to be an unstable and rather weak predictor of membership growth or decline (Bain and Elsheikh, 1976; Booth, 1983; Carruth and Disney, 1988; Disney, 1990; Roche and Larragy, 1990). Pedersen (1982) found a positive relationship between rising unemployment and membership growth in inter-war Denmark. He attributed this to the role of Danish unions in providing unemployment benefits (and early retirement benefits, after 1976). Similarly, Van den Berg (1995) showed that the impact of unemployment changed (from a positive to a negative influence on union growth) with the shift from union to state controlled unemployment insurance in the Netherlands around 1940.

Consumer price inflation is expected to raise the appetite for union membership. Workers turn to unions as a collective defence against the erosion of their living standards. In an inflationary climate new groups of workers, for instance white-collar staff, will try to defend their relative position compared to manual workers by organizing unions of their own. Moreover, in times of high inflation and supine monetary policy, 'employers may be more prepared to concede to worker demands partly because increases in labour costs can be passed on more easily to customers (Bain and Elsheikh, 1976: 62-3)'. However, a free-rider problem arises when unorganized workers receive the same wages as union members, as is common under *erga omnes* contracts and multi-employer bargaining in continental Europe (Traxler, 1994). Hence, when wage rises are a quasi-public good which can not be withheld from non-members (Chaison and Dhavale, 1992), it is not clear how inflation may help unions to attract members (Richardson, 1978: 103). In a cross-sectional study of 16 OECD countries, Freeman (1990) found a positive correlation between average price increases and union membership growth between 1970 and 1988, but the explained variance (.22) was low.

Inflation appears to be more consistently associated with membership growth in countries with adversarial and pluralistic industrial relations, as in the Anglo-Saxon countries, at least until the victory of monetarism. The studies of Ashenfelter and Pencavel (1969) for the US, of Bain and Elsheikh (1976) for Great Britain, Australia, and the US, and Booth (1983) for the UK found a correlation between price inflation, wage growth and union membership. It should be stressed that Bain and Elsheikh (1976) were unable to find a similar correlation for Sweden. Typically, and indicative of their historical contingency, the observations examined in these time series analyses ended before the mid-1970s. Schnabel (1989), who considered the period 1955-1986 in Germany, found a positive association between money wages and union growth, but conceded that the causal direction may run from union growth to wage increases. Roche and Larragy (1990) analyzed the period 1940-1986 in the Irish Republic and found, contrary to the Bain-Elsheikh model for Britain, a 'highly significant' negative association between price inflation and union growth, and no association with wage increases. A possible explanation is that in the Irish case inflation rarely occurred in times of prosperity or low unemployment. The authors point to the institutional effect of national wage and incomes policies, which tend to lower the annual rate of changes in prices

and wages but raise the public standing of trade unions. In contrast to pre-war developments, when sectoral bargaining and national wage policies were exceptional, Van den Berg (1995) found only a very small effect of real wage growth on union membership between 1946 and 1993 in the Netherlands. Possible 'threat' and 'credit' effects on account of inflation or union wage defence are weakened by the widespread use of automatic cost-of-living adjustments in collective agreements before 1982 and the extension of union-negotiated wages to non-organized firms.

The key finding in newer comparative time series studies with pooled data for OECD countries from 1960 to 1990 is that the positive impact of inflation on union growth is far outweighed by the negative influence of unemployment. The impact of unemployment on unionisation varies substantially across OECD countries (Western, 1993; 1997). Elias (1996), who used personal 'work history' data of members and ex-members in Britain, showed that the decisive factor in the decision to stay or leave the union was people's personal experience with unemployment. His study concerned unions which do not provide insurance or exert control over job queues.

As a rule, unions expand when they assert institutional control over labour markets beyond wage bargaining. Where the union provides or administrates unemployment insurance, as in Belgium, Denmark, Finland and Sweden (and in some industries or occupations in other countries), the unemployed workers remain in the union and a rise in unemployment tends to increase the attractiveness of union membership for workers (Rothstein, 1992).

Discriminatory preference clauses in collective agreements were once the characteristic of craft unions and have been used to exclude women, foreigners or the unskilled (Hartman, 1976). In the absence of such clauses, the collective agreement negotiated by the union is a non-exclusionary good. According to the theory of public goods (Olson, 1965) such goods will not induce individuals to join in the cost of production, because they can enjoy the goods for free. According to this theory, individuals will only join if they are coerced or if the union provides individual (selective) goods, like a better place in the job queue or improved unemployment insurance, not available to non-members. The 'free rider' problem in union organizing is underscored by the fact that the collective agreements apply to members and

non-members in the same firms, industries and occupations.

Sociologists have favoured the *structural* approach to union decline. In this view, decline results from changing class structures, new modes of production, flexible labour markets, or a spread of individualist social values. Union growth trajectories are expected to resemble a long-term 'parabola' rather than short-term cycles. Union movements grew in the ascending phase of industrial capitalism with the rise of large industrial conglomerates, the institutionalization of collective employment relations and the expansion of social citizenship rights. In the descending phase, with the coming of 'post-industrial' society, the trend is reversed.

The composition of European labour markets has changed dramatically in past decades. The entire employment growth was due to increased female participation; women's share among wage earners rose to 43% in 1992 and there are now less male wage earners than two decades ago. Decline has hit mining and manufacturing industry and led to a sharp fall in employment of manual workers who are now a minority in Europe's labour force.. In 1970 half of all wage earners found work in industry; in 1995 they represented one-third or less, equal to the employment share of ISIC IX (social and personal services). If the strong growth of the past 25 years continues, commercial and financial services (ISIC VI+VIII) will soon make up the other third. We observe, finally, that the share of public or collective (i.e. subsidized) employment (mostly in social and personal services) has risen over the entire period from less than a quarter to one-third. Most of this growth occurred in the 1970s but the expansion of public sector employment has stopped or has been reversed in recent years.

Judging by the union density rates in Tables 2.2 and 2.3, it appears that employment shifts have had a negative effect on overall union growth. Employment decline reduced the highly organized population, i.e. workers in industry and transport, while employment growth has occurred in sectors and among groups where unions were not well-established (Table 2.2). The main exception to this rule is the expansion of the public service sector which, due to its much higher density rate, has boosted union membership until the recent halt to welfare state growth. On average, union density in the public sector is twice as high as in the private sector—an estimated 50% against 25% in the private sector (Table 2.3). This suggests that stability of employment and the absence of employer opposition are important elements in

union organizing .

Table 2.2. Union density by sector, and gender

|	year	Male	Female	I Agriculture	II-IV Manufacturing	V Construction	VI Commerce	VII Transport	VIII Finance	IX Services
Sweden	1980	79	77	53	89	95	45	79	83	84
	1997	83	90	69	100	100	61	83	58	100
Denmark	1981	*89*	*81*	..	98	89	53	60	50	73
	1994	*88*	*88*	..	94	..	..	..	53	..
Finland	1989	68	75	83	80	..	..	..	..	..
Norway	1980	..	..	31	78	44	17	68	45	60
	1995	*57*	*58*	*27*	79	47	13	61	33	66
Belgium	1980	..	..	74	80	47	32	63	26	27
	1995	..	..	82	100	65	39	77	23	27
Ireland	1994	*58*	*42*	..	*55*	*49*	..	*71*	..	..
Austria	1980	63	40	54	68	64	26	82	36	55
	1997	51	33	40	57	48	15	60	15	41
Italy	1980	..	..	100	56	36	22	77	33	38
	1997	..	..	100	39	42	23	57	17	29
Great Britain	1979	65	39	23	64	38	10	80	22	59
	1989	*44*	*33*	*13*	*44*	*30*	*14*	*62*	*26*	*52*
	1997	*32*	*28*	*8*	*31*	*22*	*7*	*45*	*18*	*46*
Germany (West)	1980	46	20	20	50	19	12	73	19	26
	1990	41	21	22	48	19	12	71	7	24
Germany (all)	1991	43	26	29	53	25	16	76	8	27
	1997	34	21	21	45	13	10	61	5	24
Netherlands	1980	44	18	17	43	44	10	49	8	44
	1997	*33*	*20*	*20*	*33*	*41*	*14*	*39*	*16*	*28*
Switzerland	1980	47	15	..	34	65	11	62	19	28
	1987	41	14	..	34	52	9	56	14	24
Spain	1991	..	..	9	22	10	6	32	20	10
	1997	..	..	11	24	11	6	32	20	14
France	1981	*29*	*15*	16	21	8	4	25	27	28
	1993	*13*	*7*	7	9	3	3	19	20	21

Source: calculated from Ebbinghaus and Visser, 2000; Visser, 1991, and OECD Labour Force Statistics, various years;
italics: based on labour force sample surveys; else based on administrative data of unions.

Surveys in Denmark, Sweden, Britain and the Netherlands show no significant differences between men and women (if controlled for part-time or full-time employment status) in their attitudes with regard to the union (Bild, Jørgensen, Larsen and Madsen, 1998; Gallie, 1996; Kjellberg, 1997; Klandermans and Visser, 1995). In fact, the Danish survey showed that the strongest support for the unions came not from the 3M (male, manual

manufacturing) workers, but from women in the public sector. Thanks to the strong presence of female workers in the public sector and in professions like teaching and nursing the gender gap in unionization has narrowed, indeed, disappeared in the Nordic countries (as is shown in Table 2.2). Never before have so many women in Europe joined the trade union movement. Figure 2.4 gives further evidence on the convergence in male and female unionisation rates for a selection of European countries.

Figure 2.4. Convergence in male and female union density rates in selected European countries.
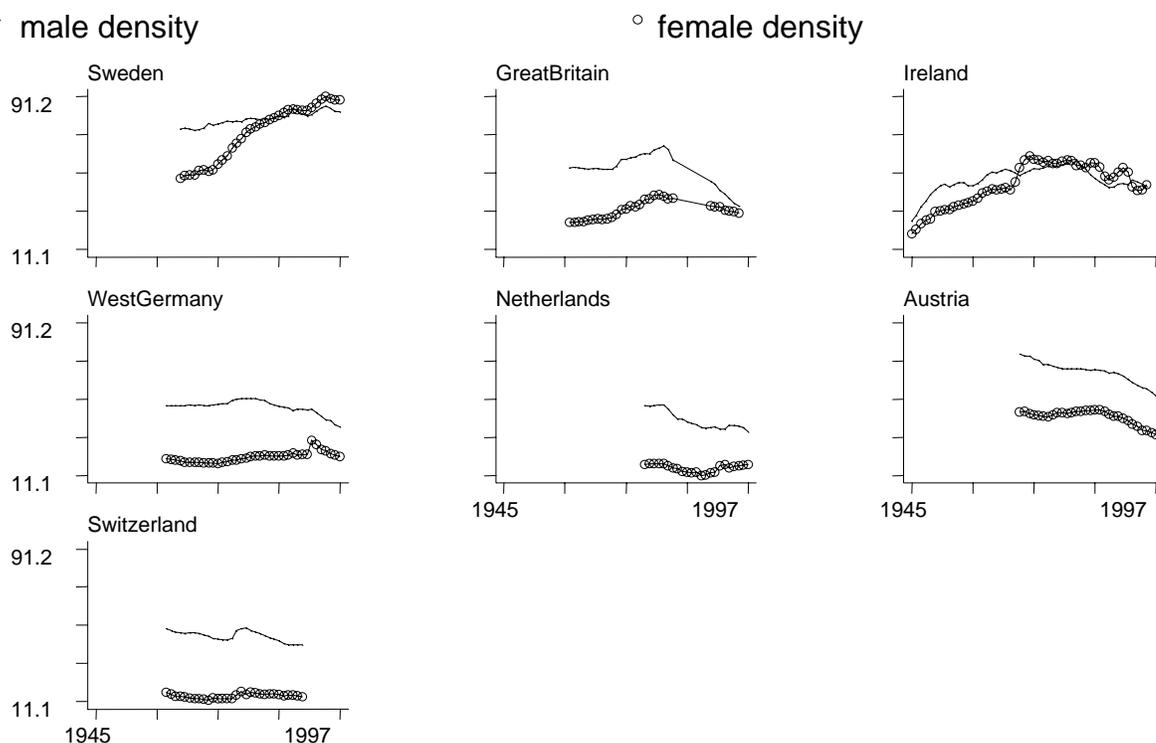
However, outside Scandinavia the largest contribution from the closing gender gap in unionization comes from the decline in male density rates due to falling employment and unionization levels in manufacturing and transport.

Table 2.3: Union Density, Private or Public Sector

	Private	public
EU average (estimate)	25	50
Sweden, 1995	77	93
Norway, 1994	44	79.
Britain, 1997	20	61
Netherlands, 1996	19	45
France, 1993	3	11

From Table 2.2 we may draw the conclusion that trade unions outside Sweden and Denmark (perhaps also Finland) have yet to make headway in organizing the most dynamic sector of the economy—business, commerce, personal, and what Esping-Andersen calls the 'food and fun' services. Here lies the Achilles' heel of the trade unions—although the decline of unionization in manufacturing and transport in Britain, France, the Netherlands, Switzerland, Austria, Italy and in recent years also in Germany points to a more general problem of decline.

Union density rates in ISIC 6 (commerce, retail, repair and hotel and restaurants) are in most countries below 20%. In ISIC 8 (financial and business services) unionization rates are slightly higher, mainly because large retail banks and insurance companies tend to be unionized. Given the current restructuring of banks and insurance companies that preserve is now under threat (Regini, Kiray and Baethge, 1999). Unionization rates in ISIC IX are higher because of the large share of public and subsidized services (public administration, police, education, health). Other domains, like cleaning and personal services, are usually hardly unionized (Visser, 1990).

Structural explanations based on employment shifts between sectors explain only part of current union decline. A shift-share analysis over the period 1980-1997, using the division in seven sectors based on ISIC coding (aggregating mining and utilities with manufacturing, as in Table 2), shows that at most 30% of the decline in unionization in any of these countries is

explained by employment shifts. However, the analysis does not take into account *intra-sectoral* changes related to the revival of small firms and the increase of part-time work and flexible employment (Delsen, 1995). In the European Union, 15% of all employees (mainly women) work part-time, and 11% of all employment contracts are atypical. There are pronounced cross-national variations in the degree of part-time and atypical work, partly as a result of union action and partly resulting from government legislation. Union density is nearly always lower in small firms, especially among micro-firms of less than 10 workers (although even here there are interesting national and regional variations). Such variation is also found with regard to part-time employment. Difficult to organize are workers in very small part-time jobs, mainly held by young people, and often based on flexible and temporary employment contracts. Table 4 shows also that the differences are slight in Sweden, Norway and the Netherlands in the case of 'long' part-time jobs, which presumably carry the same rights as fulltime jobs.

Table 2.4: Union Density by Length of Working Week

	Fulltime	Part-time
Sweden, 1995		
men	87	83
women	90	83
men, private service	75	70
women, private service	78	68
women, public service	95	91
Norway, 1994	62	57 (>=19hrs)
		36 (<19hrs)
Britain, 1997	34	20
Netherlands, 1997	31	25 (>=20 hrs)
		13 (12-19 hrs)
		3 (<12 hrs)

Part-time wok in Britain is more than in the other three countries based on sub-standard employment contracts. The low unionization rate of part-time workers in Britain has been

attributed to the lower availability of an organizing union in workplaces with many part-timers and the lower attractiveness of any union for workers with these characteristics (Green, 1990; Sinclair, 1995). Indicators other than membership, such as voting for union candidates in elections, participation in strikes, or opinions expressed in surveys all suggest a larger distance, factual and emotional, between unions and workers in unstable employment relations (Visser and van Rij, 1995, for the Netherlands; Richards and García de Polavieja, 1997, for Spain). British and Dutch panel data indicate a strong correlation between union growth and job tenure; the longer people stay in the same firm, the higher their propensity to join a union and to stay with the union (Elias, 1996; Klandermans and Visser, 1995). Finally and possibly related to the 'casualization' of the youth labour market, union membership among young people has fallen sharply over the past two decades in all countries for which we have data (both as a proportion of total union membership and as a proportion of young workers), though the fall appears to have been only small in Sweden (Kjellberg, 1997). Overall, union membership in Europe is ageing.

Even if intra-sectoral change would pick up the unaccounted 70% of the fall in union density, it does not provide us with a satisfactory explanation about why the decline occurred, and when and where it happened. The decline of industrial employment began in many countries before the drop in union membership. Moreover, since structural changes in labour markets are quite similar across countries, they are an unlikely explanation for the observed cross-national divergence in union growth (Table 2.1). Unexplained is, also, the fact that in some countries (for instance in Spain, Ireland and the Netherlands) union fortunes appeared to have turned in the 1990s despite a continuation of the same structural trends. This, evidently, points to a role for union strategy, a role which is obscured in structuralist (and business cycle) explanations. To sum up, structural change is a likely suspect in any judgement on union decline, but best conceptualized as a background pressure, the true impact of which can only be established in multivariate analysis.

At this point I should like to recall that there are several shortcomings in the data on trade union membership (for instance, we have no data on union membership by sex in Belgium, Spain and Italy). In particular, the dimensions of ethnicity, class and power in firms and society are missing. Union mergers have emasculated the organizational distinctions of

occupation, hierarchy or sector and made the available administrative data less informative. Survey data exist in a minority of countries (Sweden, Denmark, Norway, Ireland, the UK, and the Netherlands) and only in recent years.

It would be useful to consider changes in social values and expectations of workers towards unions. Such changes, in conjunction with the aforementioned changes in the labour market and the possible diffusion of 'post-materialist' values and 'individualist' life styles (Inglehart, 1977), are obvious candidates in an explanation of union decline. Historically, the core of the trade union movement was the manual working class in industry and transport. Its strength derived from a number of distinctive conditions of traditional working life: concentration of employment in large factors, a sharp distinction in status and authority between (manual) workers and (non-manual) staff, the insecurity of jobs and income, and in some cases the strength of working class communities in or outside the place of work. All these conditions generated a sense of collective identity and awareness that improvement was more likely through collective action than through individual effort. With the decline in manufacturing and the rise of small firms, fewer workers find themselves in structural conditions conducive to collective organization.

It must remain a matter of speculation whether employees are less motivated by collective values than, say, one or two generations ago. Survey research in Britain and the Netherlands suggests that no large attitudinal differences exist between members and non-members (Gallie 1996; Klandermans and Visser 1995). What has changed is the labour market, especially for newcomers and young people (Gallie, White, Cheng, and Tomlinson, 1998; Visser and Van Rij, 1999). In the British case the 'key explanation of non-membership appears to be the inability of unions to make contact with, or provide sufficient support to, potential members' (Waddington and Whitston 1997: 518). This also applies elsewhere, notably in France or the Netherlands, where surveys show that two out of three workers find themselves in an environment where unions are virtually absent (Dufour and Nunes 1998; Klandermans and Visser 1995).

Union recruitment is notoriously inefficient. In the Netherlands, for instance, two out of three new recruits leave the union within five years. Separations are most frequent among young people (Klandermans and Visser, 1995). Gallie (1996) argues that joining a union does

not require a strong collectivist value; often people join for instrumental reasons or they are made to join by their colleagues or friends; only with the passing of time they may develop a commitment to membership. Given the lack of union organization in unstable work environments, it is unlikely that newcomers will be reminded of their 'duty' to organize. Workers in unstable labour and young people may simply not have time enough to develop any strong commitment to membership.

Cyclical and structural approaches cannot explain cross-national diversity—trends and cycles are too similar between countries. *Institutional* approaches, in contrast, emphasize cross-national variation and historical contingency, and have been favoured by political scientists (Golden, 1992). In a comparative analysis of union decline since 1975, Ebbinghaus and Visser (1999) found that the crossnational variation in union density in 1995 could be explained by just three institutional variables: union-led unemployment schemes, a closed shop, and union access to the workplace (Table 2.5, model 1). However, the correlation between union density levels at the beginning and end of the period under consideration (1975-1995) is so strong, that regressions that integrate all three institutional factors are no longer significant within the same model. In an 'inertia model', only Ghent and workplace access remain. The overall negative trend of union decline can be detected from the negative (but not significant) coefficient of the constant in model 2. By far the most important factor explaining the variation in union growth or decline since 1975 appears to be whether or not, and to what degree, unions were recognized and present in the workplace. This is the only institutional factor which remains significant, in both its strong and weak variant, in models 3 and 4. This is in line with the findings of Hancké (1993) for a smaller group of seven countries and is unsurprising given the general trend towards company restructuring and decentralization of industrial relations in these years. Note that 'business cycle' and 'structural' variables did not add to the explanation—none of these variables proved significant when thrown in or used separately.

Table 2.5. Regression analysis of union density in 1995 and membership growth 1975-1995

	Union density 1995		Membership growth 1975-1995	
Model:	(1)	(2)	(3)	(4)
Constant	26.9***	-9.1	-41.3***	-63.3***
Ghent system (A)	28.7***	12.7**	14.8	
Workplace access (B)	27.9***	16.0***	29.2***	27.4***
Workplace access (b/B)			16.9**	13.7**
„Closed shop"	22.0**			
Density 1975	—	0.9***	—	0.6
r^2	.8936***	.9623***	.8620***	.8864***

Source: Ebbinghaus and Visser, 1999; Notes: N=15; level of significance: ** <= 0.05; *** <=0.01

One of the main hypotheses in the 1991 OECD Employment Outlook issue concerned the relationship between unionisation and the level of collective bargaining. In countries where unions participate in higher-level or multi-employer systems of collective bargaining, unionisation rates tend to be less prone to decline than in countries where bargaining is conducted at the company level. Blanchflower and Freeman (1990) argue that higher-level bargaining is likely to weaken employer resistance to union organising, because the union premium or mark up on wages will be lower than under single-employer bargaining. Another reason, mentioned by Sisson (1987) is that under multi-employer bargaining arrangements union interference in workplace management tends to be less intense. However, workplace distance or lack of local representation in combination with inclusive collective bargaining at higher levels (with non-members sharing in the results), is likely to make the unions more vulnerable to the aforementioned 'free rider' problem. Cross-nationally, there appears to be a positive relationship between membership mobilisation and central bargaining if bargaining is articulated in a strong tradition of local unionism (Hancké 1993). But this combination may be vulnerable to 'control drift', for instance when local bargaining is not checked by strong organisational and legal constraints on local union action. The combination of central and local bargaining may therefore become unstable and attract the opposition from employers and governments who eventually will want to change the system altogether (see Elvander 1990 for Sweden, or Van Ruysseveldt and Visser, 1996, for the tensions in the Belgian or Italian system).

Table 2.6 shows that in most European countries bargaining coverage extends far beyond union membership. In all but a few countries—the UK, Denmark and Switzerland—at least two out of three workers in the market sector are covered by a collective agreement. Comparison with earlier data indicates that until the early 1990s collective bargaining has held its place in Sweden, Finland, Norway, the Netherlands, Belgium, France, Spain and Portugal. Unfortunately, we have no data for Italy, Ireland or Greece. There are signs that employers associations are losing members in Germany and that bargaining coverage is decreasing, especially in the Eastern states and among smaller manufacturing firms and in services. Denmark and Switzerland are two more cases where employer organizations seem to decline, in the Danish case through deliberate reform. In Britain bargaining coverage has clearly contracted: the current rate (35%) is only half that of the late 1970s. This is the largest drop in a century (Milner, 1995) and directly related to the collapse of multi-employer bargaining and the disorganization of employers associations (Brown, 1993).

(Note that the definition and measurement of bargaining coverage is not unambiguous; see Milner, 1995, for various definitions. The OECD report of 1994 defines coverage as 'the extent to which the terms of workers' employment are influenced by collective negotiation (Traxler, 1994: 171). Its statistics (and the data shown here) include agreements that do not seek to determine pay and workers whose conditions are indirectly influenced by unions through mandatory extension of agreements).

Outside the Nordic countries and Britain there appears to be no relationship between the level or trend of union membership and bargaining coverage. The wide gap in countries like France, Spain, Austria, Germany or the Netherlands is in part explained by the high levels of employer organization, in part by the role of the law (Traxler, 1994; 1996; Van Ruysseveldt and Visser, 1996). In many countries the public authorities extend coverage to non-organized employers so as to protect the union sector against low cost competition from employers competing on the basis of substandard wages or working conditions. It is unnecessary to say that this 'cartel-like' protection has come under attack from the OECD (for instance, in the OECD Jobs Study and its follow-ups, OECD 1994a; 1994b; 1997) since it allegedly creates a threshold for starting firms and slows down the absorption of unemployed workers with little experience or skills.

Table 2.6. Unionization, employers organization and bargaining coverage in the market sector, mid-1990s

Countries	% workers joining	% workers in firms	% workers covered	extension of	national minimum wage
Sweden	77	60	72	absent	agreement
Finland	65	58	67	limited	agreement
Norway	45	54	62	negligible	agreement
Denmark	68	48	52	absent	agreement
Austria	37	96	97	significant	agreement
Belgium	40	80	82	significant	statutory (69%)
Germany	25	76	80	limited	agreement
Netherlands	19	80	79	limited	statutory (60%)
Switzerland	18	37	50	limited	agreement
Ireland	37	44	..	negligible	industry councils
Great Britain	21	57	35	absent	no
France	<7	71	75	significant	statutory (73%)
Spain	<15	70	67	limited	statutory (40%)
Italy	32	40	..	absent	agreement
Portugal	<20	..	..	limited	statutory (70%)
Greece	<15	..	..	significant	statutory (57%)

Source: own calculations; all rates are standardized (Traxler 1994; Visser 1991); minimum wages: Dolado et al., 1997; .. = not available.

"In this section of the report, we have presented data charting patterns and trends in European trade union membership density: across countries, industries, by type of worker and over time. We have also assessed different possible explanations for the observed trends and patterns. In the following section, we present the results of a statistical analysis based on the data here described, and attempt to shed more light on the possible explanations for the observed trends."

3. Time series evidence on union densities in European countries

From an economic perspective, a trade union can be seen as a coalition of workers providing a 'rent sharing device' through bargaining with its counterparts. The outcomes of bargaining activity extend from wage premia over the competitive wage, to wage differential compression, to insider protection against layoff risks, up to training and productivity enhancing.[1] From a social point of view, unions provide the 'voice' channel to labour movements, offering the social representation of societal values like solidarity and democracy.[2] But above all, a trade union is an organisation that provides private and collective goods in exchange for monetary (and non monetary) payments. In this perspective, when one is interested in the role of unions, one cannot help looking at union density, defined as the fraction of potential membership (usually the dependent employees) that is effectively unionised. This is due to two main reasons: the first one is that membership is a significant source of funds for union activity; the second is that union density is correlated with workers' endorsement of union actions. For both reasons union density is often taken as a proxy for union bargaining power.[3] It could also be considered as a pre-condition for wage bargaining co-ordination, on the grounds that you cannot co-ordinate workers' wage claims unless you are not somehow organising them.[4]

Thus we believe that the determinants of union density are worth investigating, since they provide indirect evidence on the evolution of the demand for 'union services' (like generalised wage increases, wage compression, employment protection and/or layoff insurance funds). Looking in a temporal perspective, we can analyse how this demand has

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[1] Beatrice and Sydney Webb provide the following definition: 'A trade union, as we understand the term, is a continuous association of wage earners for the purpose of improving the conditions of their employment.' (quoted from Ebbinghaus and Visser 2000, pg.8). Good reviews of the economic impact of unions can be found in Pencavel 1993, Booth 1995 and Blanchflower 1997.

[2] A wider discussion of this issue in Ebbinghaus and Visser 2000, ch.1.

[3] See McDonald and Suen 1992, where they infer a measure of union power from actual wage dynamics, and show the correlation between this measure and both density and unemployment measures. However, when the degree of union coverage is rather different from union density, it is questionable to proxy union power with membership: see the discussion in Burda's section.

[4] This is true as long as the 'logic of membership' and the 'logic of influence' are correlated: see Ebbinghaus and Visser 2000, ch.2.

evolved and keeps on evolving, and we can speculate on future evolutions. Data are available on a cross country base only for the most recent decades, whereas unionisation is an already secular phenomenon in most European countries. Thus events that may appear 'stylised facts' on a 30 year basis could reveal incidental occurrence when extending the angle of view.[5] However we have thought it worth reporting what existing data tell us on the determinants of union density in Europe in the last four decades, especially for we can take into account how compositional effects related to labour market reforms may have affected recent trends.

3.1 Theoretical models on union density

In the literature we find several models predicting positive union membership. The main problem faced by this literature is how to solve the paradox of free riding when membership is costly and the results of union activity are available to any worker at no cost (i.e. unions provide collective goods). One line of research has followed the so-called *social custom* approach. If unions provide monopolistically a reputation for 'good societal values' (like being supportive), and a good reputation is valuable for workers, one may expect positive density rates in equilibrium even without resorting to workers' heterogeneity (Booth 1985). When workers are differentiated according to the value they assign to reputation, one can derive threshold effects and can jointly determine union density and bargained real wage. In addition pro-union legislation and lower membership dues increase equilibrium union density (Naylor and Cripps 1993). If we consider strategic incentives to unionise, firm managers and union activists obviously have opposite goals: as a consequence, equilibrium union density is affected by the dimension of the workers' surplus and by the degree of bargaining centralisation (Naylor and Raaum 1993, Corneo 1995). Finally, if we consider that the reputation enjoyed by a worker is a function of the size of 'believers' (Akerlof 1980), we may obtain either positive or negative impact of pre-existing density on the individual decision to join, according to the dominance of 'conformist' or 'elitist' attitude among workers (Corneo

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[5] For example Booth 1983 analyses British union density over a lengthy time span (1895-1989), where two long-term cycles can be observed.

1997). In some ways, these models offer an economic interpretation of the sociological perspective or structural approach to explaining union membership, as outlined in section 2.

An alternative line of research has considered the possibility of unions providing private goods to their members, especially in terms of employment protection. This relates to Hyman's first model as presented in section 2. When unions are able to bargain over layoff procedures and to obtain preferential treatment for their members (in that non union members are the first to be laid off), workers join the union in order to obtain (partial) insurance against the unemployment risk. If they are heterogeneous in terms of risk aversion, more risk averse workers join the union and, other things being constant, an increase in aggregate unemployment risk raises union density (Booth 1984).[6] When the labour demand has an erratic component, and firms follow a last-in first-out rule in layoffs, membership increases with past employment, because seniority rules are applied in union voting as well (Burda 1990, Grossman 1983). Also in this framework, an exogenous shock to the employment probability lowers the value of union insurance, thus decreasing the expected gain of becoming a union member (Jones and McKenna 1994). Finally, if in addition to employment protection and wage differential compression unions provide a higher probability of on-the-job training, less skilled workers are more likely to unionise (Agemoglu, Aghion and Violante 2000). Whenever unions offer exclusive services to their members, e.g. in the form of advice on retirement plans and legal support in disputes with employers, union density is obviously increasing with the quality of the services provided (Booth and Chatterji 1995).

Overall, both strands of the theoretical literature provide testable predictions for union density. In the first case, density should be correlated with solidaristic values (no matter how measured), with labour productivity (since it increases available surplus) and with bargaining

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[6] However the *coeteris paribus* assumption is untenable when the joint determination of wage and density is considered: "The two facets of wage setting, the political one and the mechanical, work in opposite directions as membership grows. The political facet has wage increasing to satisfy the preferences of the shifting median voter, whereas the mechanical facet has wage declining as the members willing to work increase" (Booth 1984, p.893). Booth and Chaterij 1995 present a similar model, where membership is increasing in union bargaining power and alternative wage (and therefore negatively related with unemployment).

centralisation. In the second case, membership is correlated with unemployment risk (the sign of correlation depending whether we are considering the firm level or the aggregate one) and labour force composition (since insiders have a comparative advantage in adopting LIFO procedures). Both approaches predict a negative impact of unionisation cost, and this could be extended to include legislative support to union activity at the work-place level.

3.2 Review of empirical results on union density

From an empirical point of view, union density has been studied according to two dimensions: aggregate dynamics (time series analysis) and distribution in a population (cross-section analysis).[7]

The first line of research has focused on country studies, revealing some common patterns and some differences. The so-called 'business cycle' approach, as discussed in section 2, has highlighted a negative influence of unemployment rates and a positive effect for price inflation, whereas the overall impact of real wage growth, when considered, is ambiguous.[8] Some authors have also introduced compositional variables to account for changes in the labour force, but the results are far from conclusive.[9] More agreement can be found on the impact of favourable labour legislation on union density.[10]

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[7] In principle, panel samples represent a suitable combination of both approaches, and it could be able to ascertain whether compositional or business cycle effects are the main causes of density changes. In practice, similar data set do not exist. A panel analysis can be conducted using data at firm level (see Andrews and Naylor 1994).

[8] On British data Booth 1983 and Carruth and Disney 1988 find a negative impact of unemployment rates whereas Freeman and Pelletier 1990 find a positive one for the same country. A positive sign for the unemployment rate is also found for Finland (Pehkonen and Tanninen 1997) and for West Germany in the long-term (Carruth and Schnabel 1990), whereas a negative sign is obtained for Italy (Checchi and Corneo 1996, via the definition of worker surplus). All three studies on British density obtain a positive sign for price inflation, but in the first two cases wage inflation is also considered; as a consequence "… on balance we might expect a negative relationship between union membership and the changes in the real wage" (Carruth and Disney 1988, p.6). On the contrary, a positive effect of real wage is obtained for Germany and Italy.

[9] Freeman and Pelletier 1990 conclude that aggregate British union density in the period 1945-1986 was positively affected by the manufacturing share of employment. Pehkonen and Tanninen 1997 estimate an equation for the Finnish union density using aggregate data for the period 1962-1992, and find a negative impact of the agricultural component in the labour force.

[10] Freeman and Pelletier 1990 show the significance of a "legal index" measuring the attitudes towards the unions of the government in place. Pehkonen and Tanninen 1997 use a step-variable

Evidence from individual data is less controversial. Blanchflower (1997) makes use of 40.000 observations collected in 1989-92 on European workers to prove that unionisation is positively and non-linearly related with age (with a probability peak at the age of 45) and is more likely for men, employed full-time in manual work. Part-timers are less likely to unionise, but unionisation increases with hours worked.[11] Public employees and workers in the industrial sectors are more likely to unionise, whereas the educational attainment is found irrelevant.[12] Environmental variables (proxied by the density rate at the firm or sector level) seem to play a significant role.[13] In the end, leftist voting and/or being a member of a left-wing party is usually strongly correlated with being a union member, because the two decisions are probably jointly determined.[14] Finally, some studies have also considered firm-level data, finding evidence of the positive effect of local unemployment rates, whereas the wage premium seems irrelevant.[15]

On the whole, an analysis based on individual observation may help to predict the possible impact of compositional changes in the potential membership: increasing white collar jobs, more and more held by better educated women, can be detrimental for union density.

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measuring the change in the pro-union attitude of the government. Checchi and Corneo 1996 use a step-variable to control for the introduction of a worker charter favouring unionisation at workplaces.

[11] Van den Berg and Grift 1998 analyses three surveys conducted on Dutch workers in 1979, 1987 and 1995, and find positive effects for a male dummy, for age and education, whereas religious beliefs decline in importance.

[12] The educational attainment is found significant in public sector unionisation in another sample of 150.000 observations referred to US and UK in two waves (1983 and 1993). Similar conclusions are obtained in Card 1998 with respect to CPS surveys conducted in US in 1973 and 1993

[13] Working on British (from BHPS) and German (from GSOEP) data, Goerke and Pannenberg 1998 find positive effect of sectoral density rates interacted with spouse/partner status (the partner being a union member in the German data-set, the partner voting for left-wing parties in the British data-set) on the probability of joining a union.

[14] See Riley 1997.

[15] Blanchflower and others 1990 find evidence of local unemployment positive impact. Booth and Chatterji 1993 and Corneo and Lucifora 1997 find that plant level union density is independent of the bargained wage (respectively using British and Italian datasets).

However, careful analysis of compositional changes indicates that the portion of variance explained by these factors is limited.[16]

3.3 Empirical evidence on European union density rates based on aggregate data

The data utilised in the present analysis have been collected with the main concern of comparability across fourteen European countries.[17] Even when national sources provided longer series, we have preferred to stick to international ones. Union density rates are taken from Ebbinghaus and Visser (2000): when available, net density rates (excluding members who are unemployed or retired, computed on dependent employed workers) have been preferred.[18] The dynamics of union density rates have already been presented in the previous section.

The augmented Dickey-Fuller tests (country by country, 1 or 2 lags, with and without time trend) indicate that these series are all non stationary, and therefore we will consider first differenced variables.[19] In addition, normality tests indicate normality for the first differenced variable. The potential existence of cointegrating relationships allows us to represent the data generating process as an error-correction mechanism, thus allowing the distinction between short-term effects and long-term determinants.[20]

The survey of existing literature suggests alternative explanations of the dynamics of union density, which we group into three categories of available variables.

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[16] For example, Green 1992 examines British density in 1983 and 1989, finding that compositional effects (gender, full/part-time, age composition and firm size) on the whole account for only 30% of the union decline registered in the same period.

[17] The countries are Austria, Belgium, Denmark, Finland, France, (West) Germany, Great Britain, Italy, Ireland, Netherlands, Norway, Spain, Sweden, Switzerland.

[18] For five countries it was necessary to resort to gross density rates (i.e. including members who are not active workers): Great Britain, Ireland and Switzerland (for lack of a better alternative), Denmark and Spain (for a longer time span).

[19] The use of first differenced variables eliminates the problem of non stationarity (in all cases but two, Italy and Switzerland – tests statistics available upon request) and avoid the use of logistic transformation in order to obtain normally distributed residuals (as done in Booth 1983).

Business cycle effects

Many authors find evidence of non-zero correlation between the UNEMPLOYMENT RATE (variable UNE)[21] and the density rate. Correlation can exhibit both signs. Traditional explanations suggest a negative correlation, because during booming periods market forces provide wage increases, whereas during recessions employers' bargaining power is strengthened, and they are more likely to reject any union's request (Booth 1983). However, when protection reasons prevail (either because unions administer unemployment benefit schemes, as in the so-called "Ghent system", or because workers believe that the status of union member is associated with a lower probability of lay-off), correlation could be positive.

An additional indicator for cyclical variations is the INFLATION RATE of the CONSUMER PRICE INDEX (variable INFL)[22], which in some country studies exhibit a positive correlation (Carruth and Disney 1988, Carruth and Schnabel 1990, Freeman and Pelletier 1990). The usual explanation invoked here is the 'insurance motive': with rising inflation, workers become more unsure about the sustainability of the real value of their earnings, and join the union to protect it better. The same kind of mechanism could operate through a decline in real wage growth: in such a case we should expect a negative correlation between this real wage growth and union density. However, if the decision of the individual worker to join a union is viewed as a sort of 'reward' to the union in exchange for its success in wage bargaining, we should expect a positive correlation instead (Checchi and Corneo 1996). We have preferred to disentangle this last effect using the WAGE SHARE on VALUE ADDED (variable WASH).[23]

Compositional effects

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[20] See Engle and Granger 1987. For a similar approach see Carruth and Disney 1988 and Carruth and Schnabel 1990.

[21] Unless otherwise indicated, all aggregate macro-variables have been extracted from OECD Statistical Compendium 1998/2.

[22] In the case of Denmark, the CPI index has been extracted from the OECD Main Economic Indicators data-set.

Time series analysis is not the most appropriate tool to investigate the potential existence of compositional effects determining the evolution of union membership. Individual data seem more appropriate to accomplish this task. Within a literature based on individual data, there is wide consensus about the fact that male manual workers have a higher propensity to unionise. More recent evidence indicates that the educated female component of public employees also has high density rates (at least in relative terms). In addition, full-time adult workers have higher density rates than young part-timers (see Blanchflower 1997). In order to control for these effects using aggregate variables, we have first considered the PARTICIPATION RATE (variable PART), on the ground that an increase in this variable entails the appearance in the labour market of individuals (women and young workers) with lower inclination to unionise (thus expecting a negative correlation). On the other hand, the dynamics of this variable is affected by the presence of discouraged workers. This suggests the use of an interrelated variable, the EMPLOYMENT RATE (variable EMPL, with the male variant, MEMP, and the female one, FEMP) that avoids the problems. Our expectation is that, other things being constant, an increase in the employment rate implies the entrance in the labour market of more women and young workers.[24] Given the fact that these people are more likely to be employed in non-standard employment contracts (part-time, temporary jobs), they are less likely to unionise:[25] as a consequence, we expect a negative correlation between employment and density rates. As we will see below, when we have information on the AGE COMPOSITION (variable YOUNG, corresponding to the share of employees younger than 35) and on the TEMPORARY CONTRACTS (variable TEMPOR, indicating the share of temporary employed in total dependent employment), we can directly control for this effect, and this will make the EMPL effect vanish.

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[23] This variable has been computed as the ratio of 'compensation of employees' to 'value added at market prices', both evaluated at current prices in local currencies.

[24] Especially in Southern European countries, where participation rates are lower than the corresponding rates for Nordic countries: with a European average for the female participation rate in the 90's of 0.39 (entire population), Italy has a value of 0.30, Spain (and Ireland) of 0.28.

[25] Irregular working hours hinder trade union recruitment efforts and reduce communication with colleagues, which in turn may reduce any sense of shared interests at the workplace. See Riley 1997.

Whenever data were available, we have tried to isolate single compositional effects: we have experimented with the GENDER COMPOSITION of the employment by considering the dependent employment share of women (variable GENDER). We do not have an *a priori* expectation on the sign of this correlation: in addition to the different degree of employment stability and duration, female unionisation can be affected by the perception of a union's goals as 'male-oriented' or not.[26] We have also considered the sectoral composition of the dependent employment. The INDUSTRY SHARE IN DEPENDENT EMPLOYMENT (the variable IND) can be taken as a (admittedly weak) proxy of the manual/non manual ratio in the labour force, whereas the PUBLIC EMPLOYMENT SHARE (variable PA) takes into account the absence of managerial opposition to unionisation. In both cases, we expect a positive correlation with union density.[27] If considering strategic incentives, it is likely that high rent sectors provide greater incentive to unionisation because the rent premium that can be captured by collective bargaining is higher. To control for this effect we have considered the (dependent) EMPLOYMENT SHARE IN NATURAL MONOPOLY (variable MON), by taking into account the energy-gas-water and transport-telecommunications sectors.[28] If we want to take into account the precariousness of the employment relationship, in addition to the share of temporary employment we could also consider two indirect measure of this effect: the PRIVATE SERVICE SHARE IN DEPENDENT EMPLOYMENT (variable SE) and the SELF-EMPLOYMENT SHARE IN TOTAL EMPLOYMENT (variable INTO). In both cases we expect an unfavourable effect on unionisation.

We also want to control for the skill distribution in the labour force, especially when considering the enormous changes that have occurred in educational achievements in the aftermath of World War II. In principle, this information is collected only in census years. However, we have made use of the estimates provided by Barro and Lee (1996). Starting from a census year, these estimates are updated using enrolment rates by the permanent inventory

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[26] Gender specific density rates are available for seven countries. For four of them the male rate is higher than the female one (West Germany, Austria, Netherlands and Switzerland); in two case the reverse situation applies (Sweden and Ireland). Finally, in the case of Great Britain, the huge decline of the former rate has put the two rates in line.

[27] Gender disaggregation of these variables did not reveal additional information when introduced in regressions.

method. Unfortunately these estimates have been constructed on a quinquennial basis. In order to obtain values for the intermediate years, we interpolated existing observations making use of a polynomial of time (up to the fourth power). A measure is thus accessible: the POPULATION SHARE (in the 25-64 age group) WITH SECONDARY SCHOOL or COLLEGE DEGREE (variable FHC), which is the sum of the population share with secondary school degree and the population share with college degree, both obtained with the above-mentioned procedure. Once again we do not have an *a priori* expectation of the correlation with density. On one side, an increase in educational attainment yields an increased bargaining power to the single worker that has achieved it, thus making individual bargaining more desirable, and providing an incentive to abandon the collective bargaining provided by unions.[29] On the other hand, when the increased educational attainment is generalised, collective bargaining may remain viable, and unions still provide useful services to accomplish it. In addition, increased education calls for recruitment of additional teachers, which traditionally is a highly unionised sector.

It has been stressed that institutional factors are relevant in creating incentives and obstacles to unionisation. A first factor that immediately comes to our mind is the degree of flexibility in the labour market.[30] In terms of unionisation, we expect non-standard employees (including part-timers) to be harder to unionise, because they are less frequently on the work place, are more vulnerable to the risk of unemployment and/or may express less attachment to their job-mates. Regrettably, the series for non-standard employees are available only for most recent years and not for all countries.[31] As a consequence, we could compute the NON-STANDARD EMPLOYMENT SHARE (variable PARSH) on a very limited range of country/years,

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[28] Unfortunately, compositional variables based on sectoral dependent employment are not available on a cross-country comparable basis for four countries (Denmark, Ireland, Netherlands, Austria).

[29] Agemoglu and others 2000 indicates as one of the potential explanations of the decline in unionisation the skill-biased technological change, in that it provides an incentive to more productive workers to move to individual bargaining.

[30] See Nickell 1997 and Blanchard and Wolfers 2000 for alternative measures of labour market institutions.

[31] The most recent issue of OECD Main Economic Indicators report the absolute number of part-timers and non-standard employment for the following countries (in brackets the starting year):

making this variable almost unusable in the regression analysis. Greater time span is offered by the share of temporary worker (available since 1983 for 9 countries and since 1995 for 3 countries), which is one possible measure of the degree of flexibility of the labour market.

Political attitude effects

In order to address the question of the impact of institutions, we have looked at the political orientation of policy making. While this can rather easily be done on a country by country base,[32] it is more difficult to provide a comparable index across countries. We have experimented with two variables: a first variable indicates the POLITICAL ORIENTATION of the EXECUTIVE GOVERNMENT in office (variable GOVN, taking the value +1 when a pro-labour government is in office, -1 for a conservative government and 0 for all the cases which do not fit into the previous two categories).[33] A second variable that captures the extent of social protection, with special reference to the unemployed is the REPLACEMENT RATE (variable BENEFIT).[34]

But social attitudes could be relevant as well, as we have learnt from the social custom approach to unionisation. Since we could not think of good proxies measuring solidaristic values at the aggregate level on a comparative basis, we have resorted to STRIKE PARTICIPATION as an indirect measure of 'conformist behaviour' among the workers (variable

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Belgium (1988), Germany (1991), Ireland (1980), Netherlands (1989), Norway (1992), Spain (1988), Switzerland (1992) and Sweden (1987).

[32] Freeman and Pelletier 1990 show a positive effect of a legal index measuring the attitudes towards the unions of the government in place in Great Britain. Pehkonen and Tanninen 1997 find that a step-variable measuring the change in the pro-union attitude of the government has a positive impact on union membership for Finland. Checchi and Corneo 1996 find an analogous effect for Italy when considering the introduction of a workers' charter of rights.

[33] This information has been kindly made available by Patrick Walsh, Development Research Group, The World Bank. A full account of the methodology of construction of this data-set covering the period 1975-95 is in Beck and others 2000. The variable GOVN corresponds to the original variable EXERLC.

[34] It includes both unemployment benefits and social assistance benefits, and has been created as from a weighed average of the average production worker wage and 2/3 of it. The source is the OECD Data-base on Benefit Entitlements and Gross Replacement Rates.

SPART).[35] In principle this variable should display a high correlation with density, as long as mainly union members respond to strike calls of the union. However, when the coverage extends to non-union members as well, all workers may feel involved in general issues (pension schemes, indexation, etc.) and therefore respond to calls for strikes. In such a case, strike participation is measuring the degree of popularity of union goals in the working population. However in some institutional contexts, this variable captures other aspects, like resources available to unions, adversarial or co-operative attitudes in bargaining, the legal framework for strike activity, so that we do not rely excessively on this variable. All variable means are reported in Table 3.1 (for available samples), and pair-wise correlation and available observations are reported in Table 3.2.

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[35] This variable corresponds to the ratio of workers involved in strikes (source: ILO Statistics) and dependent employment. For countries where the latter information was absent (Austria, Denmark, Ireland, Netherlands, Switzerland), total employment was used as denominator.

Table 3.1 – Country averages of the relevant variables – available samples

	Finland	Belgium	Sweden	Denmark	Norway	Italy	Great Britain	Ireland	West Germany	Nether ands	Austria	France	Switzer land	Spain
DEN	0.518	0.479	0.738	0.682	0.519	0.339	0.447	0.469	0.322	0.333	0.522	0.203	0.346	0.097
UNE	0.069	0.086	0.029	0.074	0.046	0.104	0.067	0.107	0.058	0.069	0.024	0.087	0.007	0.128
INFL	0.066	0.045	0.063	0.071	0.060	0.083	0.072	0.076	0.034	0.042	0.041	0.058	0.036	0.092
WASH	0.569	0.623	0.601	0.563	0.475	0.550	0.679	===	0.547	0.516	===	0.531	===	===
PART	0.500	0.408	0.504	0.519	0.459	0.412	0.474	0.379	0.463	0.421	0.429	0.429	0.517	0.384
EMPL	0.465	0.372	0.490	0.480	0.437	0.370	0.442	0.339	0.436	0.379	0.418	0.392	0.514	0.335
GENDER	0.469	0.345	0.470	===	0.403	0.316	0.413	===	0.382	===	===	0.399	0.360	0.292
IND	0.391	0.429	0.330	===	0.345	0.447	0.396	===	0.488	===	===	0.400	0.534	0.416
PA	0.273	0.308	0.368	===	0.298	0.253	0.267	===	0.243	===	===	0.283	0.077	0.257
SE	0.303	0.246	0.280	===	0.331	0.214	0.318	===	0.255	===	===	0.295	0.337	0.255
MON	0.083	0.093	0.078	===	0.116	0.069	0.086	===	0.076	===	===	0.082	0.082	0.071
INTO	0.206	0.193	0.091	===	0.163	0.319	0.099	===	0.144	===	===	0.176	0.160	0.297
YOUNG	0.355	0.473	0.351	0.458	===	0.433	0.450	0.553	0.438	0.502	0.489	0.442	===	0.459
TEMPOR	0.171	0.058	0.122	0.106	===	0.063	0.062	0.093	0.100	0.095	0.074	0.091	===	0.277
PARSH	===	0.015	0.270	===	0.030	===	===	===	0.021	===	===	===	===	0.081
FHC	0.365	0.412	0.517	0.534	0.349	0.289	0.421	0.424	0.258	0.474	0.395	0.267	0.495	0.197
GOVN	0.381	-1.000	1.000	-0.143	0.429	0.238	-0.524	-1.000	-0.238	-0.619	1.000	-0.048	-0.190	0.722
BENEFIT	0.245	0.415	0.223	0.479	0.206	0.039	0.226	0.243	0.289	0.395	0.188	0.327	0.132	0.230
SPART	0.121	0.012	0.017	0.032	0.009	0.425	0.051	0.030	0.007	0.005	0.004	0.060	0.000	0.266

Legend:

DEN = union net density (active dependent members, excluding unemployed or retired)

UNE = unemployment rate (unemployed/labour force)

INFL = inflation rate of consumer price index

WASH = wage share on value added – private sector

PART = participation rate (labour force/population)

EMPL = employment rate (employed/population)

GENDER = female component of dependent employment

IND = industry share in dependent employment

PA = public employment share in dependent employment

SE = private service share in dependent employment

MON = employment in "natural monopolies" (energy-gas-water-transport-telecommunications) in dependent employment

INTO = self-employment share in total employment

YOUNG = share of dependent employment younger than 35 year old

TEMPOR = share of temporary worker in dependent employment

PARSH = part-time and other non-standard employment share on dependent employment

FHC = population share with secondary or college degree (interpolation on quinquennial observations)

GOVN = government political orientation (pro-labour +1; conservative –1)

BENEFIT = replacement rate

SPART = strike participation (strikers/employees).

Table 3.2 – Sample correlation of the relevant variables – available sample dimensions in italics

	DEN	UNE	INFL	WASH	PART	EMPL	GENDER	IND	PA	SE	MON	INTO	YOUNG	TEMPOR	PARSH	FHC	GOVN	BENEFIT	SPART
DEN	1																		
	660																		
UNE	-0.2478	1																	
	477	*501*																	
INFL	0.1807	0.0487	1																
	483	*483*	*512*																
WASH	0.1846	-0.0592	0.2652	1															
	268	*263*	*261*	*268*															
PART	0.4177	-0.3787	-0.2004	0.063	1														
	453	*476*	*461*	*263*	*477*														
EMPL	0.4049	-0.6629	-0.1722	0.0792	0.9429	1													
	455	*476*	*462*	*262*	*476*	*479*													
GENDER	0.6104	-0.072	-0.1343	0.0153	0.7196	0.5546	1												
	316	*325*	*319*	*212*	*324*	*325*	*326*												
IND	-0.4114	-0.3079	0.0642	0.0825	-0.4276	-0.2046	-0.7204	1											
	283	*293*	*286*	*212*	*292*	*292*	*293*	*293*											
PA	0.4607	0.3017	-0.112	0.0189	0.3368	0.1373	0.6532	-0.8755	1										
	283	*293*	*286*	*212*	*292*	*292*	*293*	*293*	*293*										
SE	0.2268	-0.032	-0.1443	-0.1349	0.5312	0.4147	0.6799	-0.6623	0.3396	1									
	283	*293*	*286*	*212*	*292*	*292*	*293*	*293*	*293*	*293*									
MON	0.2603	-0.2522	-0.2039	-0.2952	-0.0039	0.0858	0.0543	-0.1492	0.0283	0.4129	1								
	283	*293*	*286*	*212*	*292*	*292*	*293*	*293*	*293*	*293*	*293*								
INTO	-0.4967	0.3425	0.1413	-0.3981	-0.6419	-0.6233	-0.6682	0.3848	-0.4434	-0.5099	-0.1971	1							
	283	*293*	*286*	*212*	*292*	*292*	*293*	*293*	*293*	*293*	*293*	*293*							
YOUNG	-0.1136	0.1655	0.1475	0.0518	-0.4468	-0.3847	-0.3912	0.1022	-0.0442	-0.0612	0.2877	0.0976	1						
	131	*121*	*133*	*85*	*119*	*118*	*72*	*72*	*72*	*72*	*72*	*72*	*150*						
TEMPOR	-0.1883	0.5095	-0.0868	-0.4059	-0.1234	-0.2435	-0.3507	0.0346	-0.1074	-0.0772	-0.3813	0.286	-0.1467	1					
	131	*121*	*133*	*85*	*119*	*118*	*72*	*72*	*72*	*72*	*72*	*72*	*150*	*150*					
PARSH	0.7432	-0.4124	0.3483	0.1206	0.5248	0.5095	0.5755	-0.4537	0.5709	0.0254	-0.1735	-0.3253	-0.6589	0.2724	1				
	34	*34*	*34*	*17*	*33*	*33*	*34*	*34*	*34*	*34*	*34*	*34*	*22*	*22*	*34*				
FHC	0.359	0.1456	-0.127	0.0851	0.4498	0.3317	0.6283	-0.7694	0.8044	0.4689	0.028	-0.6057	0.2113	-0.0386	0.5613	1			
	483	*490*	*486*	*268*	*468*	*469*	*320*	*288*	*288*	*288*	*288*	*288*	*115*	*115*	*31*	*504*			
GOVN	0.1256	-0.2047	0.1379	-0.0306	0.0814	0.1356	0.0538	-0.0226	0.0432	-0.1267	-0.2092	0.0558	-0.3169	0.3633	0.5795	-0.152	1		
	288	*287*	*287*	*191*	*287*	*286*	*197*	*177*	*177*	*177*	*177*	*177*	*115*	*115*	*31*	*291*	*291*		
BENEFIT	0.178	0.3133	-0.0976	0.0204	0.1842	0.0366	0.356	-0.2918	0.5068	0.1214	0.0534	-0.4809	0.1695	0.1533	-0.3655	0.5303	-0.1687	1	
	479	*487*	*486*	*268*	*463*	*465*	*321*	*288*	*288*	*288*	*288*	*288*	*127*	*127*	*34*	*490*	*291*	*504*	
SPART	-0.1237	0.3061	0.4138	0.0537	-0.2542	-0.3052	-0.3103	0.16	-0.164	-0.4091	-0.3911	0.5098	-0.221	0.3842	-0.1127	-0.2597	0.1277	-0.3018	1
	423	*430*	*419*	*258*	*430*	*432*	*317*	*285*	*285*	*285*	*285*	*285*	*104*	*104*	*31*	*432*	*279*	*428*	*432*

Legend: see Table 3.1

Just looking at the correlation coefficients (first column of Table 3.2), union density seems negatively associated with the unemployment rate and positively with the inflation rate and with the wage share on value added. As a result, business cycle explanations of union density should not be contradicted by our data. More controversial evidence appears when we consider compositional effects. Employment rates seem positively correlated with union density, as is the case for the female component.[36] However these could just be spurious correlation, and multivariate analysis is required to ascertain the validity of this evidence. More straightforward is the finding of a positive correlation with public employment share, whereas it is counterintuitive to find a negative correlation with industry share and a positive one with private service share. Negative correlation, as expected, is found with temporary contracts share and age composition of the employees. Additional evidence that requires further investigation is the positive correlation between the skill level in the population and union density, which turns out to be positive. Finally, while there is low correlation with a government's political orientation, its pro-unemployment attitude is captured by the level of replacement rate. On the contrary, strike participation does not exert a significant impact on unionisation.

It is necessary to move on to multivariate analysis. We start with a country level analysis, trying to assess the existence of regularities across countries. Subsequently we treat the whole sample as an unbalanced panel of observations. Finally, we will aggregate the data across countries and study the 'European' density rate.

In search of a long term relationship between union density DEN and another variable (or a group of variables), say the unemployment rate UNE, we make use of the following formalisation (error correction representation)[37]

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[36] Visser in OECD 1991 was already sceptical about gender based explanation of the decline in union membership in Europe. See the discussion about a non-linear relationship between the two variables in the previous section.

[37] If we are in search of a long term relationship between union density DEN and another variable (or a group of variables), say the unemployment rate UNE, we may want to test the validity of the following formulation

$$\Delta DEN_t = \beta_0 + \gamma_1 \Delta UNE_t + \gamma_2 DEN_{t-1} + \gamma_3 UNE_{t-1} + u_t \qquad (1)$$

The estimated coefficient $\hat{\gamma}_1$ can be taken as the *short term impact* and the computed value $\left(-\hat{\gamma}_3 / \hat{\gamma}_2\right)$ as the *long term effect* of UNE onto DEN. In addition $|\gamma_2|$ is a measure of the speed of convergence to the long term relationship; $\gamma_2 < 0$ implies convergence, whereas $\gamma_2 > 0$ suggests divergent behaviours. However one may argue that the finding of significant estimates for the coefficient γ_1 cannot be taken as evidence of a causal link running from unemployment to union density, especially when considering the potential endogeneity of the unemployment rate.[38] We tackle this problem by lagging the right hand side variables that are potentially affected by endogeneity or by reverse causality. This is done in the short term

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$$DEN_t = \alpha_0 + \alpha_1 UNE_t + u_t \qquad (N.1)$$

If the equation (N.1) cannot be directly estimated because of non-stationarity of the independent variable, using first differences can overcome the problem.

$$\Delta DEN_t = \alpha_1 \Delta UNE_t + \left(u_t - u_{t-1}\right) \qquad (N.2)$$

However equation (N.2) represents a *short-term relationship* between DEN and UNE, which constitutes a good approximation if and only if the two variables do not deviate excessively from their *long term steady-state (equilibrium) relationship*. On the contrary, when some dynamic adjustment is added to equation (N.1), as for example

$$DEN_t = \beta_0 + \beta_1 UNE_t + \beta_2 DEN_{t-1} + \beta_3 UNE_{t-1} + u_t \qquad (N.3)$$

it can be rearranged as in the error correction mechanism representation (See Harvey 1981)

$$\Delta DEN_t = \beta_0 + \beta_1 \Delta UNE_t + \left(\beta_2 - 1\right)DEN_{t-1} + \left(\beta_3 - \beta_1\right)UNE_{t-1} + u_t =$$
$$= \beta_0 + \beta_1 \Delta UNE_t - \left(1 - \beta_2\right)\left[DEN_{t-1} - \left(\frac{\beta_3 - \beta_1}{1 - \beta_2}\right)UNE_{t-1}\right] + u_t \qquad (N.4)$$

or using a more compact notation

$$\Delta DEN_t = \beta_0 + \gamma_1 \Delta UNE_t + \gamma_2 DEN_{t-1} + \gamma_3 UNE_{t-1} + u_t \qquad (N.5).$$

[38] Both Nickell 1997 and Blanchard and Wolfers 2000 put the unemployment rate on the left hand side and union density on the right hand side. However, both papers raise the doubt on whether unemployment is more affected by union coverage or union density.

component, because if long term cointegrating relationships exist, they cannot be interpreted in terms of direction of causality, but just as fixed ratios among the variables. In conclusion, the general form of the estimated model is

$$\Delta DEN_t = \beta_0 + \gamma_1 \Delta UNE_{t-1} + \gamma_2 DEN_{t-1} + \gamma_3 UNE_{t-1} + u_t \qquad (2)$$

3.3.1 – Individual country estimation

We start our discussion with country by country estimates, making full use of all available information. The estimated models are reported in Table 3.3a-3.3b-3.3.c.

Table 3.3a - Determinants of union density – "High density" countries (robust regressions - t-statistics in parentheses)

Model :	Finland	Belgium	Sweden	Denmark	Norway	Austria
# obs :	21	31	25	17	27	26
Period:	1975-95	1962-92	1971-95	1975-91	1963-91	1970-95
Depvar:	Δden	?den	?den	?den	?den	?den
intcpt	0.111	0.675	-0.148	0.237	0.172	0.157
	(1.82)	(2.95)	(-3.05)	(6.26)	(3.11)	(2.31)
ΔuneL1	-0.898	0.911	-0.903	-1.022	-0.277	
	(-4.12)	(2.12)	(-3.40)	(-5.25)	(-1.47)	
Δinfl	0.169			-0.335	0.048	0.117
	(2.17)			(-4.42)	(2.14)	(2.54)
Δwash					-0.189	
					(-4.78)	
ΔemplL1	-2.122	1.578	-1.478			0.456
	(-6.24)	(2.09)	(-5.97)			(2.21)
Δpa	-0.370	0.964	-0.438			
	(-0.99)	(1.79)	(-1.76)			
Δind	-0.966		-0.779		0.274	
	(-2.78)		(-3.06)		(4.33)	
Δgender		-1.836	1.349			
		(-2.22)	(3.73)			
Δfhc	1.337	8.013		10.807	-0.858	
	(4.01)	(6.27)		(2.62)	(-1.64)	
govn	0.003			0.016		
	(0.92)			(4.01)		
Δbenefit		-0.106	0.057		0.057	0.054
		(-1.51)	(1.76)		(1.74)	(2.05)
Δspart	0.038	-0.221	0.034	-0.049	0.107	
	(3.01)	(-1.69)	(3.71)	(-3.73)	(7.08)	
denL1	-0.147	-0.253	-0.231	-1.118	-0.405	-0.029
	(-1.56)	(-2.88)	(-5.97)	(-4.70)	(-3.28)	(-0.56)
uneL1	-0.221	-0.603	0.711	1.340	0.149	0.506

	Netherl	Italy	Ireland	Britain	Germany	Switzlnd
	(−1.93)	(−5.21)	(3.83)	(5.20)	(1.15)	(3.78)
emplL1		−1.490	0.623	0.995	0.099	−0.391
		(−2.83)	(4.46)	(3.68)	(3.03)	(−3.38)
R²	0.873	0.818	0.894	0.95	0.824	0.607
DW	2.46	2.30	2.03	2.13	2.08	1.91
RESET(pval)	0.04	0.37	0.59	0.39	0.12	0.96
Avg DEN	0.71	0.48	0.79	0.79	0.52	0.49
			Long-term relationship of DEN with			
UNE	−1.50	−2.38	3.07	1.19	0.36	17.5
EMPL	−−	−5.87	2.69	0.89	0.24	−13.5

Legend: see Table 3.1 – ?X indicates first differences of X – XL1 indicates the variable X lagged 1 year.

Table 3.3b - Determinants of union density – "intermediate density" countries (robust regressions - t-statistics in parentheses)

Model :	Netherl	Italy	Ireland	Britain	Germany	Switzlnd
# obs :	18	20	35	20	20	35
Period:	1978-95	1975-94	1962-96	1975-94	1975-94	1962-96
Depvar:	?den	?den	?den	?den	?den	?den
intcpt	−0.704	0.833	0.722	0.003	0.454	0.061
	(−2.62)	(8.77)	(3.98)	(0.03)	(5.07)	(2.34)
?uneL1	−1.577	0.706		−0.543	0.502	−0.690
	(−4.50)	(2.64)		(−2.28)	(2.17)	(−1.64)
?infl	−0.273	0.041		0.078		−0.228
	(−2.31)	(1.88)		(4.35)		(−1.97)
?wash	−0.372	−0.224		−0.189	−0.211	
	(−1.44)	(−1.68)		(−3.93)	(−1.86)	
?emplL1		2.367	0.370	−0.932	1.051	−0.147
		(6.26)	(0.94)	(−2.21)	(4.40)	(−1.47)
?pa					0.923	
					(2.47)	
?ind					1.706	
					(4.32)	
?gender		−1.083			2.371	−1.232
		(−5.16)			(3.07)	(−1.97)
?fhc		10.795		−3.227		
		(2.81)		(−3.66)		
govn	0.008	−0.011		0.022	−0.007	
	(2.44)	(−2.68)		(9.07)	(−4.36)	
?benefit	−0.442		−0.221		−0.452	
	(−1.86)		(−1.74)		(−1.35)	
?spart	1.013			−0.071		
	(3.42)			(−3.92)		
denL1	0.797	−0.585	−0.397	−0.105	−0.327	−0.176
	(2.63)	(−9.70)	(−3.67)	(−3.23)	(−1.79)	(−2.46)
uneL1	1.265	−0.797	−0.853	0.110	−0.610	−0.422
	(2.70)	(−4.52)	(−4.67)	(0.97)	(−3.52)	(−1.82)
emplL1	0.970	−1.734	−1.272	0.147	−0.722	
	(2.50)	(−9.14)	(−3.74)	(0.80)	(−7.59)	
R²	0.851	0.901	0.463	0.964	0.98	0.458
DW	1.97	2.62	1.49	2.40	1.76	1.50
RESET(pval)	0.75	0.44	0.79	0.38	0.09	0.00

```
Avg DEN      0.26       0.38       0.51       0.44       0.31       0.32
                      Long-term relationship of DEN with
UNE         -1.58      -1.36      -2.14       1.04      -2.20      -2.39
EMPL        -1.21      -2.96      -3.20       1.39        --         --
==============================================================================
```
Legend: see Table 1 – ?X indicates first differences of X – XL1 indicates the variable X lagged 1 year.

Table 3.3.c - Determinants of union density – "low density" countries (robust regressions - t-statistics in parentheses)

```
------------------------------
Model :     France      Spain
# obs :        19         16
Period:    1971-89    1982-97
Depvar:      ?den       ?den
------------------------------
intcpt       0.483     -0.427
            (2.67)     (-2.21)

?uneL1       0.841
            (2.51)

?infl                  -0.194
                       (-1.65)

?emplL1      1.296     -0.720
            (2.25)     (-2.43)

?fhc        -1.287
           (-1.61)

?spart      -0.045
           (-2.24)

denL1       -0.532     -0.503
           (-3.26)     (-2.45)

uneL1       -0.978      0.326
           (-4.14)     (1.52)

emplL1      -0.758      1.357
           (-1.90)     (2.43)


------------------------------
R²           0.796      0.777
DW           2.73       1.87
RESET(pval)  0.76       0.15
------------------------------
Avg DEN      0.16       0.10
Long-term relationship of DEN with
UNE         -1.83       0.64
EMPL        -1.42       2.69
==============================
```
Legend: see Table 3.1 – ?X indicates first differences of X – XL1 indicates the variable X lagged 1 year.

As can be easily imagined, it is almost impossible to ascertain common patterns at this level, because the same variable bears the expected sign in some countries but not in others. For this reason, we have tried to group the countries in accordance with the level and the trend of union density: a first group of "high density" countries (Finland, Belgium, Sweden, Denmark, Norway, Austria), a second group of "intermediate density" countries (Netherlands,

Italy, Ireland, Great Britain, (West) Germany, Switzerland) and a "low density" group (composed by France and Spain only).[39]

Looking at the first group of "high density" countries, we find evidence of the traditional role played by business cycle components in the short-term: negative impact of unemployment and positive impact of inflation. What is more unexpected is the long term positive correlation between union density and unemployment rates for a group of countries (Sweden, Denmark, Norway and Austria). This is more surprising when we observe that in the second and third group of countries the unemployment rate plays a long-term negative role in all cases but two.[40] A potential explanation of this result could be related to the so-called Ghent system:[41] whenever unions are in touch with unemployed workers (either because they administer unemployment benefits or provide direct assistance to them), density rates do not necessarily decline with increased unemployment.[42] Further support in this direction comes from the replacement rate BENEFIT as a proxy of government attitude towards the unemployed: it comes out positively associated with union density in three cases out of seven (Sweden, Norway and Austria), all in the first group of countries. Rather similarly, while employment rates exert a negative impact in the long-term for the majority of countries, they are positively related to union density in some countries of this group (Sweden, Denmark and Norway). Notice that the measured impact reaches significant values: a one percent increase in the unemployment rate translates into one-two additional points in union membership for some

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[39] This grouping corresponds to the configuration analysis developed in the previous section (see previous section), and also reflects the country ranking according to the trends of union densities.

[40] There is evidence of a positive effect in the long-term for the case of Great Britain, but its significance in negligible. A different case is the Spanish one, where over the narrow sample available (14 years) unemployment and density are positively related, but the latter variable could not help but rise, given the previous dictatorship.

[41] "Only in a few European countries has the 'Ghent system'—with the state providing supplementary means to a union-funded and union-controlled unemployment scheme—survived the shock of the Great Depression of the 1930s. Elements of that system have been retained by the Danish and Swedish unions, and were reintroduced in Finland in the late 1960s. In other countries where it had been operative, for instance, in Norway, the Netherlands or Britain, these systems were replaced by mandatory state schemes. In Belgium, where the Ghent system originated, it was also discontinued but unions still hold on to an administrative role in processing individual benefit cases for their members, thus giving them the possibility of providing preferential treatment (and a highly selective benefit) to members in good standing" (Ebbinghaus and Visser 2000, p.14-15).

[42] A theoretical analysis of the incentive to density provided by government subsidised unemployment insurance schemes is offered by Holmlund and Lundborg 1999.

"high density" countries (Austria displaying much higher values, due to the imprecise estimate of the coefficient on DENL1), and into an opposite variation for "intermediate density" countries.

When we look at the other variables, the representation that emerges is far more homogenous. Among the *business cycle effects*, the inflation rate exerts a short term positive impact in five cases out of nine,[43] whereas the wage share has a constant negative impact when significant (five cases).[44] Similarly, some *compositional effects* vary significantly across countries: an increase in the female component of employment lowers union density in Belgium, Italy and Switzerland, but is beneficial to unions in Sweden and Germany. Even less interpretable are the signs of the other variables (industrial share IND and public employment share PA), that are significant in some cases but not in others.[45] Even the educational attainment at secondary level (or above) in the population has variable impact: is exerts a positive influence in some countries (Finland, Belgium, Denmark and Italy), but negative in others (Norway, Britain and France).

Also in the case of *political attitude effects* we do not find univocal patterns. The political orientation of the executive (which can be taken as a proxy of the political climate) bears a positive sign in all cases but two. This suggests that a government's pro-labour attitude can significantly help unions in raising density, and conversely conservative governments may impede unionisation.[46] However, in the case of the two countries exhibiting negative signs (Italy and Germany) an alternative explanation could be at hand. These two countries experienced long periods of conservative (Christian-Democrat with various allied parties) governments, and yet the presence of these conservative governments seems to have raised union density. A possible explanation has probably to do with a "moral" effect in the

---

[43] These five countries are Finland, Norway, Italy, Great Britain, and France, while the negative correlation is obtained for Denmark, Netherlands, Switzerland and Spain. This raises some doubts about the generality of the conclusion by Freeman and Pelletier 1990 about the existence of an "insurance motive" explaining the positive correlation with the inflation rate.

[44] Here again reverse causality may be at work, though a theoretical expectation would be for a positive sign. However this has to do with the assumption concerning technology and union preference: see the discussion in McDonald and Suen 1992.

[45] The employment share in natural monopoly (variable MON) is never significant altogether.

rank-and-files: since conservative governments are expected to reform welfare and labour market institutions in a pro-market direction, unions revitalise in opposing such measures, and this raises union density. Finally, strike participation comes out significant in eight cases, but with alternating signs that cannot be attributed to a general interpretation.

Diagnostic statistics are satisfactory, especially when one takes into account that we are not making use of any dummy variable to account for institutional change. The predictive ability of the model is rather good even when analysing first differences, as can be judged from Figure 3.1

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[46] It is interesting to observe the high t-statistics associated with this coefficient in the British case, where trade unions crashed after the Tatcher treatment after 1979.

Figure 3.1
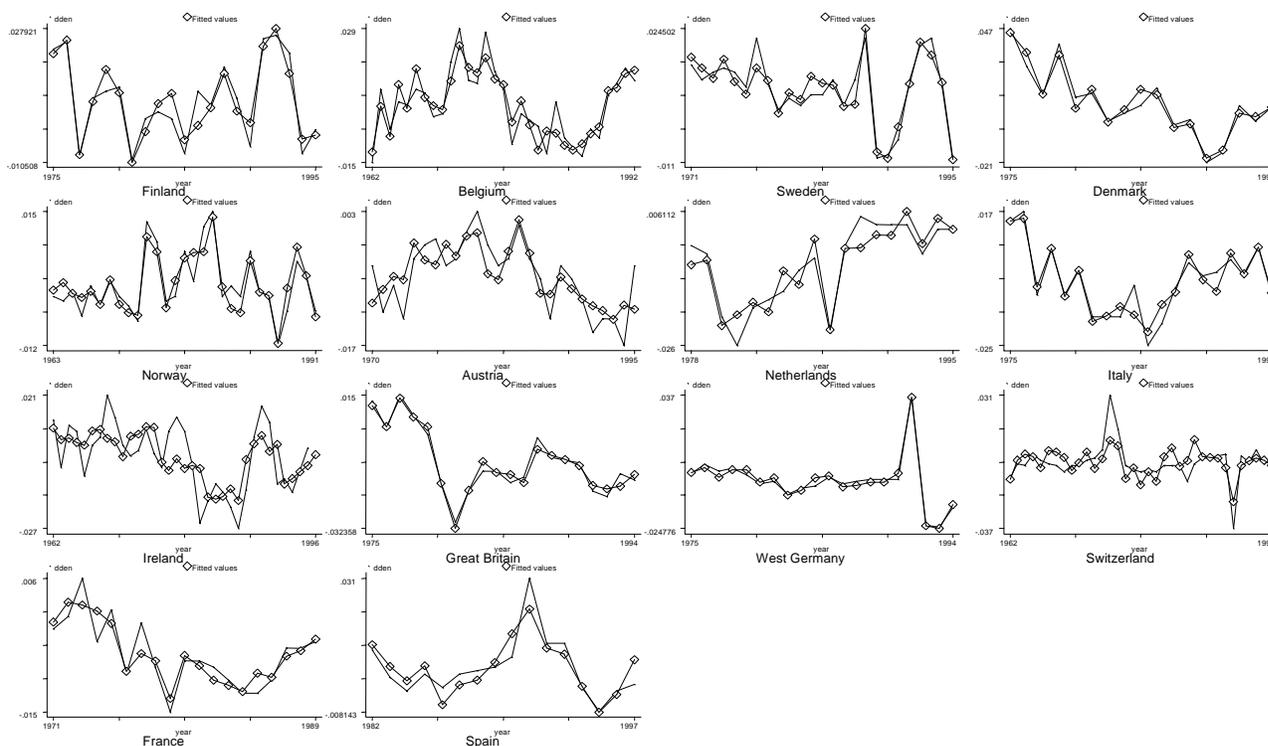
Country by country estimates - first differences

Summing up, we have found that the main determinants of union density in European countries are to be looked for in cyclical components and in the political game, whereas compositional effects are more controversial. Within the cyclical component, we uncover two types of behaviour. Within most of the "high density" countries, labour market participation (either as employed or unemployed) has beneficial effects on union density. The same countries have therefore recorded soaring trends for membership in recent decades. In the "intermediate density" countries, the opposite situation occurs: youth unemployment and greater labour market participation are associated with declining membership. We have also to take into account that unions are "political animals", that react to the political climate: when anti-labour reforms are at issue, they mobilise and, if successful, gain more members as a reward for their action. On the contrary, in case of defeat, union membership declines.

3.3.2 – Panel estimation

The main weakness of the previous model is due to the shortage of degrees of freedom for each country. In search of a common unionisation pattern we have pooled all the available information, taken as an unbalanced panel. A fixed effect model estimated over the available time span (mainly the period 1961-1995) is reported in Table 3.4.

Table 3.4 - Determinants of union density (fixed effects) (t-statistics in parentheses)

# obs :	432	426	419	394	283	406
Depvar:	Δden	Δden	Δden	Δden	Δden	Δden
intcpt	0.046	0.045	0.043	0.051	0.083	0.042
	(3.55)	(3.38)	(3.25)	(3.65)	(3.67)	(3.15)
Δunel1	-0.10	-0.102	-0.114	-0.118	-0.173	-0.124
	(-1.29)	(-1.27)	(-1.44)	(-1.46)	(-2.26)	(-1.54)
ΔemplL1	-0.209	-0.216	-0.217	-0.225	-0.309	-0.220
	(-2.12)	(-2.12)	(-2.19)	(-2.22)	(-2.97)	(-2.18)
Δinfl		0.018				
		(0.76)				
Δfhc			0.112			0.104
			(1.65)			(1.49)
Δspart				0.005		
				(0.96)		
govn					0.000	
					(0.32)	
Δbenefit						0.042
						(1.47)
denL1	-0.027	-0.027	-0.025	-0.030	-0.062	-0.026
	(-3.12)	(-3.11)	(-2.80)	(-3.21)	(-3.01)	(-2.85)
denL1*DK	-0.231	-0.209	-0.244	-0.232	-0.269	-0.238
	(-4.60)	(-3.58)	(-4.35)	(-4.10)	(-4.32)	(-4.22)
denL1*NL	-0.096	-0.097	-0.110	-0.099	-0.087	-0.113
	(-1.83)	(-1.83)	(-2.03)	(-1.82)	(-1.72)	(-2.06)
denL1*UK	0.065	0.066	0.065	0.069	0.095	0.068
	(1.80)	(1.81)	(1.79)	(1.87)	(2.53)	(1.85)
uneL1	-0.128	-0.126	-0.132	-0.129	-0.143	-0.125
	(-6.34)	(-6.13)	(-6.17)	(-5.79)	(-4.68)	(-5.65)
uneL1*DK	0.681	0.60	0.704	0.692	0.547	0.696
	(5.23)	(4.11)	(5.05)	(4.90)	(4.19)	(4.96)
emplL1	-0.041	-0.043	-0.038	-0.047	-0.075	-0.035
	(-1.45)	(-1.51)	(-1.30)	(-1.56)	(-1.83)	(-1.20)
R²(within)	0.212	0.199	0.202	0.211	0.253	0.204
Hausman	75.02	507.1	62.99	63.78	168.5	52.08

Long-term relationship of DEN (all countries) with

UNE	-4.79	-4.71	-5.29	-4.25	-2.30	-4.85
EMPL	-1.51	-1.60	-1.51	-1.55	-1.20	-1.36

Legend: see Table 3.1 – ?X indicates first differences of X – XL1 indicates the variable X lagged 1 year.

A fixed effect estimation has been preferred to a random effect alternative, because single country estimation has shown rather different behaviours. In addition, other institutional features (like the role and relative importance of firm-level union organisation) could not be controlled for.[47] Using the fixed effect model we dispense for persistent differences affecting the levels of density, and concentrate on common patterns of dynamics.

The *business cycle effect* is mainly captured by the unemployment rate UNE, which exerts a negative short-term impact on density. The inflation rate INFL (second column) comes out as insignificant, while the wage share WASH has been excluded at this stage because it is not available for all countries. The *compositional effect* is taken by the employment rate EMPL, which in turn exerts a negative short-term impact.[48] Thus we find partial support to the view that the propensity of new entrants in workplaces to unionise is lower (see next paragraph for deeper discussion). When the educational attainment is taken into account (variable FHC in third column), in the short-term it contributes with a positive sign. Leaving aside differences in educational attainment across countries,[49] this effect can only be explained by the better educational background of new entrants, and it provides an opposite indication to the EMPL variable one. Jointly taken, the compositional variables suggest that better-educated new entrants have a higher propensity to unionise, whereas below-the-average education workers tend to unionise at a lower rate than pre-existing workers. If the non-standard employment contracts are more represented among the latter group of workers, this would indicate that unions are losing support among the group of low-skill workers, which in previous periods were among the core of the rank-and-file. Finally the *political attitude effect* is hardly described by the political orientation of the executive (variable GOVN in fifth column) or strike participation (variable SPART in fourth column), whereas it finds negligible positive evidence when measured by the replacement rates (variable BENEFIT in sixth column). The dynamics is stable, but with a very low speed of adjustment (see the coefficients on DENL1).

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[47] Hanke 1993 argues that different trends in density rates could account for the different role of workplace organisation, because it is the local union that is accessible to the single worker, offering grievance and membership services. Waddington and Whiston 1997 argues that recruitment practices by unions are relevant determinants of the reasons why people join (or refuse to join) a union.

[48] The employment rate EMPL was preferred to the participation rate PART on the grounds of goodness of fit.

[49] These differences were still rather pronounced, even in the 90's: the population share with secondary degree or more is 79% in Switzerland, 60% in Norway and 45% in Italy or Spain.

But the strongest effects are produced by labour market variables. Both the unemployment and the employment rates exhibit a negative impact onto union density, both in the short-term and in the long-term (whereas the levels of all the other lagged variables remain insignificant, and are not reported). Therefore the dynamics of union density in European countries seem to respond negatively to two types of shocks: rises in unemployment rates (due to oil shocks, fiscal discipline induced by monetary convergence) and increased participation in the labour market (mainly by part-timers and temporary workers). However this picture is not as homogenous as it appears at first glance. As suggested by the Hausman specification test, the estimated relationship is mis-specified, because imposing the same dynamics with regard to long-term effect is effectively rejected by the data. For this reason, we have interacted the lagged variables with country dummies, and have retained the statistically significant ones. By including these coefficients in the calculation of long-term relationship for the countries concerned, it comes out that Denmark and Great Britain exhibit positive relationships between union density and unemployment (with a computed coefficient of 2.16 and 2.96 respectively – value referred to the sixth column), whereas the negative effect is attenuated for the Netherlands (coefficient equal to –0.90). This is related to previous results concerning the role played by unions in the Ghent system: when unemployment insurance institutions give a pivotal role to union, membership is expected to rise notwithstanding high unemployment. The predictive ability of this general model is rather good: in addition to R^2 measures, one may have a visual inspection by looking at Figure 3.2.

Figure 3.2

Actual and predicted union density
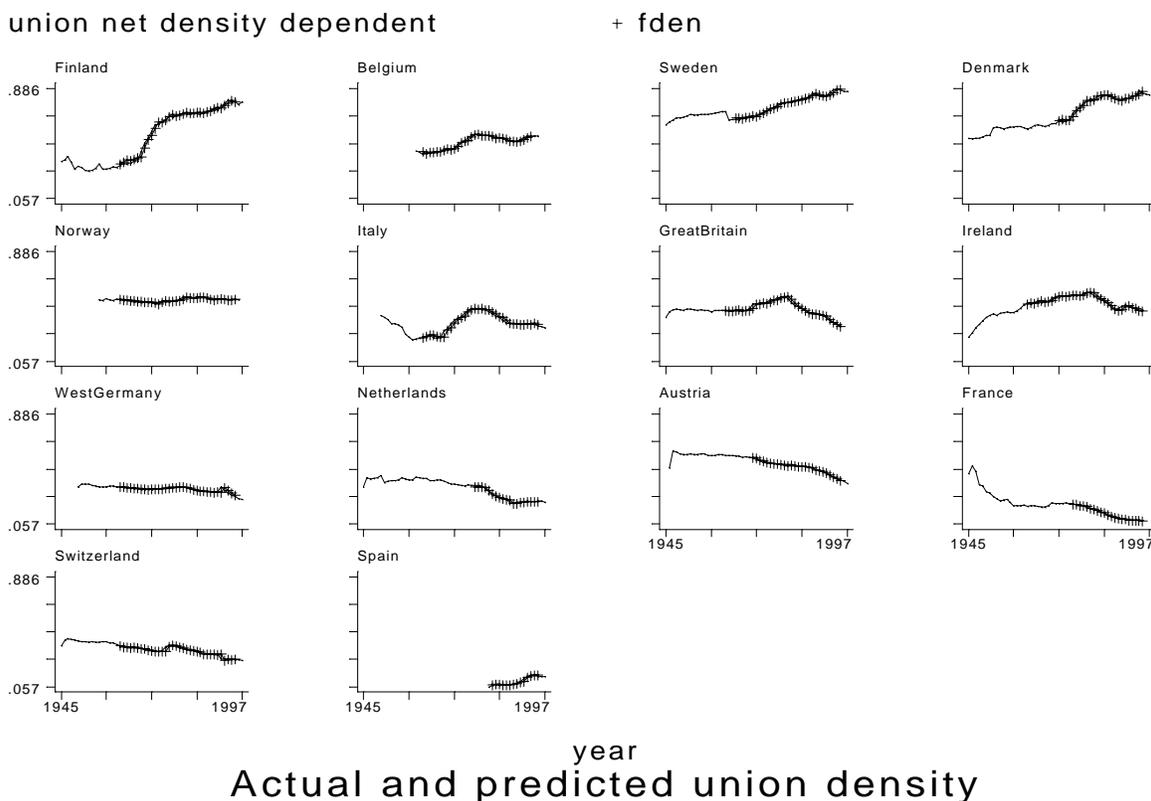
It is important to stress that the estimated model dispenses with country specific effects affecting the means of the variables, but imposes a common pattern of dynamics across all the sample countries. Thus in all European countries (except Denmark and Britain) a long-term increase in unemployment reduces union density, with an estimated elasticity of –0.74 (at sample means, using the last column). This value seems rather excessive: with a country average unemployment in Europe of 4.4% before 1980 and 9.9% afterwards, this should be responsible for an average decline in density of about 29 percentage points ! However, since the long-term measure depends on the estimated coefficient for DENL1, we believe that the imposition of a common speed of adjustment does not fit the data (as witnessed by the Hausman test). Whenever we allow for different speeds of adjustment (as we do for Denmark, Britain and the Netherlands) we find lower values; repeating the experiment for all countries we find that most of them have a lower estimated coefficient for DENL1. Thus we believe that the true elasticity of union density with respect to unemployment rate is lower that that obtained by panel estimates (as can be inferred by comparing country by country estimates

with panel estimates, as done in table 3.5 that summarises the evidence obtained in table 3.3 and 3.4).

Table 3.5 - Determinants of union density – comparison of alternative models

	Finland	Belgium	Sweden	Denmark	Norway	Austria	Nether lands	Italy	Ireland	Great Britain	West Germany	Switzer Land	France	Spain	Europe15
	long-term effect - country by country estimates														
UNE	-1.50	-2.38	3.07	1.19	0.36	17.50	-1.58	-1.36	-2.14	1.04	-2.20	-2.39	-1.83	0.64	-2.85
EMPL	--	-5.87	2.69	0.89	0.24	-13.50	-1.21	-2.96	-3.20	1.39	--	--	-1.42	2.69	-4.57
	long-term effect - panel fixed effects (last column of table 4)														
UNE	-4.85	-4.85	-4.85	2.16	-4.85	-4.85	-0.90	-4.85	-4.85	2.96	-4.85	-4.85	-4.85	-4.85	-4.85
EMPL	-1.36	-1.36	-1.36	-0.13	-1.36	-1.36	-0.25	-1.36	-1.36	0.83	-1.36	-1.36	-1.36	-1.36	-1.36
	for reference: average density (over the estimation period)														
avgDEN	0.71	0.48	0.79	0.79	0.52	0.49	0.26	0.38	0.51	0.44	0.31	0.32	0.16	0.10	0.36

We are also reassured in this claim by noticing that the short-term impact of unemployment is much lower (estimated elasticity of –0.02 at sample means – sixth column). Similar effects are produced by an increase in the employment rate: the short-term elasticity is –0.20, while the long-term one is much higher –1.27.

One would like to speculate on future evolution of union density. Leaving aside the specificity of Denmark, Britain and the Netherlands, our estimated long-term relationship that is common to all countries is the following

$$DEN_t = \beta_0 - 4.85 \cdot UNE_t - 1.36 \cdot EMPL_t = (\beta_0 - 4.85) + \left(\frac{4.85}{PART_t} - 1.36 \right) \cdot EMPL_t \qquad (3)$$

By exploiting the relationship between participation rate, employment rate and unemployment rate (namely $EMP = PART \cdot (1 - UNE)$), equation (3) indicates that union density is intrinsically related to the evolution of the labour demand and the labour supply. For constant participation rates, an increase in employment rates raises union density because it obviously reduces unemployment. On the other hand, if participation is correlated with employment (discouraged workers effect), a rise in employment rates lowers density. A combination of the two movements (say a rise in the employment rate of one percentage point accompanied by a reduction in the unemployment of similar magnitude) produces an increase in density.

3.3.3 – Compositional effects using panel estimation

In searching for a more consistent pattern in compositional effects, we have collected information on the sectoral composition of employment (variables IND, SE, PA and MON), age and gender composition (variables YOUNG and GENDER) and indirect measures of the precariousness of the employment conditions (variables INTO and TEMPOR). The main problem with this analysis is that is restricted to a subset of countries and to more recent years. Since the intersection of non-missing observation cases is rather limited and therefore less significant (56 observations referred to 6 countries), we have preferred to consider two

alternative sub-samples. In the first one (reported in Table 3.6a) we integrate previous variables (unemployment rate, employment rate, educational attainments and unemployment benefits) with gender composition (columns 2 to 6) and sectoral variables (industry share in column 2, private services share in column 3, public employment share in column 4, natural monopoly share in column 5 and self-employment share in column 6).[50]

Table 3.6a – Compositional effects in union density (fixed effects) (t-statistics in parentheses)

# obs :	256	256	256	256	256	256
Depvar:	Δden	Δden	Δden	Δden	Δden	Δden
intcpt	0.055	0.043	0.049	0.046	0.057	0.049
	(3.20)	(2.50)	(2.87)	(2.68)	(3.31)	(2.78)
ΔuneL1	-0.218	-0.138	-0.256	-0.218	-0.308	-0.270
	(-1.73)	(-1.03)	(-2.02)	(-1.66)	(-2.44)	(-2.12)
ΔemplL1	-0.466	-0.475	-0.529	-0.571	-0.605	-0.569
	(-2.74)	(-2.69)	(-2.97)	(-3.25)	(-3.47)	(-3.21)
Δfhc	0.180	0.151	0.151	0.169	0.152	0.161
	(2.01)	(1.72)	(1.68)	(1.89)	(1.72)	(1.80)
Δind		0.392				
		(2.79)				
Δgend		0.638	0.371	0.544	0.532	0.417
		(3.08)	(1.89)	(2.58)	(2.70)	(2.13)
Δse			-0.238			
			(-1.43)			
Δpa				-0.246		
				(-1.55)		
Δmon					0.717	
					(2.63)	
Δinto						0.012
						(0.10)
Δbenef	0.065	0.062	0.063	0.063	0.046	0.063
	(1.65)	(1.61)	(1.61)	(1.60)	(1.17)	(1.60)
denL1	-0.013	-0.011	-0.014	-0.012	-0.016	-0.015
	(-1.24)	(-1.05)	(-1.35)	(-1.09)	(-1.54)	(-1.34)
uneL1	-0.166	-0.165	-0.152	-0.168	-0.157	-0.156
	(-5.69)	(-5.67)	(-5.17)	(-5.53)	(-5.41)	(-5.22)
emplL1	-0.085	-0.059	-0.075	-0.068	-0.092	-0.075
	(-2.20)	(-1.54)	(-1.93)	(-1.75)	(-2.38)	(-1.92)
R²	0.194	0.234	0.216	0.217	0.232	0.209

Note: data refer to the following country/year: Finland (1962-95), Belgium (1962-92), Sweden (1960-95), Norway (1962-95), Italy (1962-94), Great Britain (1962-95), West Germany (1962-95), France (1975-89), Switzerland (1971), Spain (1982-95).

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[50] We do not consider more than one sectoral variable in turn, since most of them are highly collinear.

One can notice that, while the general model retain its validity, there is additional variation that can be explained by these compositional variables. If we look at the increase in the R² coefficient from the first column (where compositional variables are excluded) to the other columns, we notice that at best the compositional effects explain an additional 5% of the (within) variance. The female component in the dependent employment shows a positive sign, thus indicating that women per se do not have a lower propensity to unionise, but their propensity is intertwined with both the sector of employment and the employment opportunity they get. With respect to sectors, industrial employment is positively correlated, and, conversely, private services employment is negatively correlated (but weakly significant). It is rather surprising to find a negative sign for the public employment variable. Employment in 'natural monopoly' sectors (energy-gas-water-transport-telecommunications), that lie in between industry and services, show a strong and positive effect on density. Finally, the share of self-employment (which in some countries – like Italy or Spain – proxies the extent of the informal sector of the economy) does not affect union density. In Table 3.6b we consider a different sub-sample of countries and years, dropping previous compositional variables and introducing age composition and temporary employment.

Table 3.6b – Compositional effects in union density (fixed effects) (t-statistics in parentheses)

# obs :	95	95	95	95
Depvar:	Δden	Δden	Δden	Δden
intcpt	0.045	0.076	0.037	0.066
	(0.56)	(0.96)	(0.47)	(0.83)
ΔuneL1	-0.116	-0.101	-0.120	-0.106
	(-0.82)	(-0.73)	(-0.86)	(-0.76)
Δinfl	0.233	0.202	0.232	0.206
	(3.02)	(2.61)	(3.02)	(2.65)
ΔemplL1	-0.192	-0.189	-0.160	-0.171
	(-0.94)	(-0.94)	(-0.79)	(-0.84)
Δfhc	-0.183	-0.271	-0.265	-0.305
	(-1.46)	(-2.08)	(-1.96)	(-2.24)
Δtempor		-0.108		-0.091
		(-2.01)		(-1.57)
Δyoung			-0.263	-0.156
			(-1.50)	(-0.84)
denL1	-0.083	-0.108	-0.085	-0.105
	(-1.93)	(-2.45)	(-1.99)	(-2.37)
uneL1	-0.10	-0.105	-0.046	-0.073
	(-0.84)	(-0.91)	(-0.38)	(-0.59)

```
uneL1*DK      0.659      0.812      0.686      0.803
             (3.49)     (4.05)     (3.64)     (4.00)

emplL1       -0.018     -0.072     -0.013     -0.060
            (-0.11)    (-0.45)    (-0.08)    (-0.38)

-------------------------------------------------------
R²            0.308      0.343      0.328      0.349
=======================================================
```

Note: data refer to the following country/year: Belgium (1984-93), Denmark (1984-91), Italy (1984-95), Great Britain (1984-95), Ireland (1984-95), West Germany (1984-95), Netherlands (1988-95), France (1984-95), Spain (1987-95).

The difference in the sample can be ascertained when observing that the general model does not fit these county/year observation, because most of the variables are either insignificant (employment and unemployment rates) or have the opposite sign (the educational attainment); in addition the inflation rate exerts a positive short-term impact. With these caveats in mind, we see that both the young component in the employment (workers aged less than 35) and the temporary component of dependent employment have a negative impact onto union density. However, when both variables are jointly considered, they both lose significance, suggesting that they are capturing the same effect. However these results have to be taken with caution, and they cannot be extended to the entire sample (because potential distortions in sample selection).

On the whole, we find that the main compositional effects come from sectoral allocation of the employment. When some surplus is available (because reduced competition) unions face an easier task in unionising workers, since they provide 'better services' (either in terms of wage premia or employment protection). Age and gender effects do not indicate per se lower propensity to unionise within these components, but they are probably intertwined with the type of employment obtained. If women and/or youngsters are more likely to end working in the private services sector and/or with temporary employment contracts (the two conditions are rather frequent in the retailing sector, for example), then we register a lower union density due to these compositional effects.[51]

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[51] The only way to ascertain whether these compositional effects are attributable to anagraphic components (gender/age, which could be related to a change of preferences) or to job characteristics is to use individual observations and to control for self-selection.

3.3.4 – Aggregate estimation

The validity of the existence of a common pattern of unionisation across European countries can also be assessed in a more heroic way. By summing union members and employees across countries one may construct a European density rate.[52] In a similar way one may construct employment and unemployment rates. Other conditioning variables can also be obtained by simply averaging country specific observations.[53] This is accomplished in Table 3.7, where the European union density is regressed onto the (country average) values of .previously exposed variables.

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[52] Given the fact that for five countries (Denmark, Ireland, Netherlands, Austria, Switzerland) we do not have sufficiently long information about dependent employees, we have considered total employment as the denominator of this variable (variable DEN1). This underestimates the true density. To control for this effect, we have also computed the simple average on country series (variable DEN2) and there is an average sample per cent difference of 0.23, which is due partly to a size effect and party to the different denominator. Given the fact that the average ratio of dependent to total employed is 0.81, the difference is almost entirely attributable to the latter factor. Moreover, since different countries have time series for union members and employees starting at different dates, in order not to lose observations for each year we have extended the sum across countries to non missing cases for both numerator and denominator (series DEN1). This obviously induces distortions in the dynamics when a country with an average density above or below the country average enters (or exits) the sample. However, for the period 1975-92 all 13 countries are present, whereas they decline to 10 going to the extremes (1960 and 1996).

[53] A more correct procedure would require weighted averages, where the weights would have requested bilateral exchange rates for all countries for the whole period. Since it is not clear whether nominal rates or international purchasing power rates would have been appropriate, the shorter way of simple averages has been followed.

Table 3.7 - Determinants of European union density (robust regressions - t-statistics in parentheses)

```
-------------------------------
Model :  aggregation   average
# obs :        35          35
Period:   1962-96     1962-96
Depvar:       Δden        Δden
-------------------------------
intcpt       0.173       0.014
            (2.73)      (0.15)

Δinfl       -0.106       0.075
           (-1.94)      (1.37)

ΔemplL1      0.677      -0.350
            (2.44)     (-1.46)

Δfhc         0.010      -0.079
            (1.35)    (-21.46)

Δbenefit     0.30        0.264
            (2.38)      (1.78)

denL1       -0.070      -0.012
           (-1.98)     (-0.19)

uneL1       -0.199      -0.082
           (-4.87)     (-1.25)

emplL1      -0.320      -0.007
           (-2.40)     (-0.04)


-------------------------------
R²           0.731       0.781
DW           1.65        1.21
RESET(pval)  0.01        0.17
-------------------------------
Avg DEN      0.36        0.46
Long-term relationship of DEN with
UNE         -2.85       -6.85
EMPL        -4.57       -0.60
===============================
```

Legend: see Table 3.1 – ?X indicates first differences of X – XL1 indicates the variable X lagged 1 year.

In this case some cyclical and compositional factors are statistically significant in the short-term, but alternate signs according to the aggregation procedure. This is not surprising, given the fact that during the sample period business cycles and structural transformations were not synchronised across Europe. If we look at the first column (which corresponds to direct aggregation), we find that inflation reduces density in the short-term, whereas increase in employment rates raise it. Once again, improvements in educational attainment are beneficial to unions. In addition, some positive evidence is also recorded for the political attitude by the replacement rate variable, reaffirming that government attitudes matter for unionisation. As far as the long-term dimension, once again we find a negative correlation

between union density and unemployment and employment rates.[54] Diagnostic statistics are not very satisfactory, whereas the predictive ability for the aggregate model is depicted in Figure 3.3

Figure 3.3

European union density
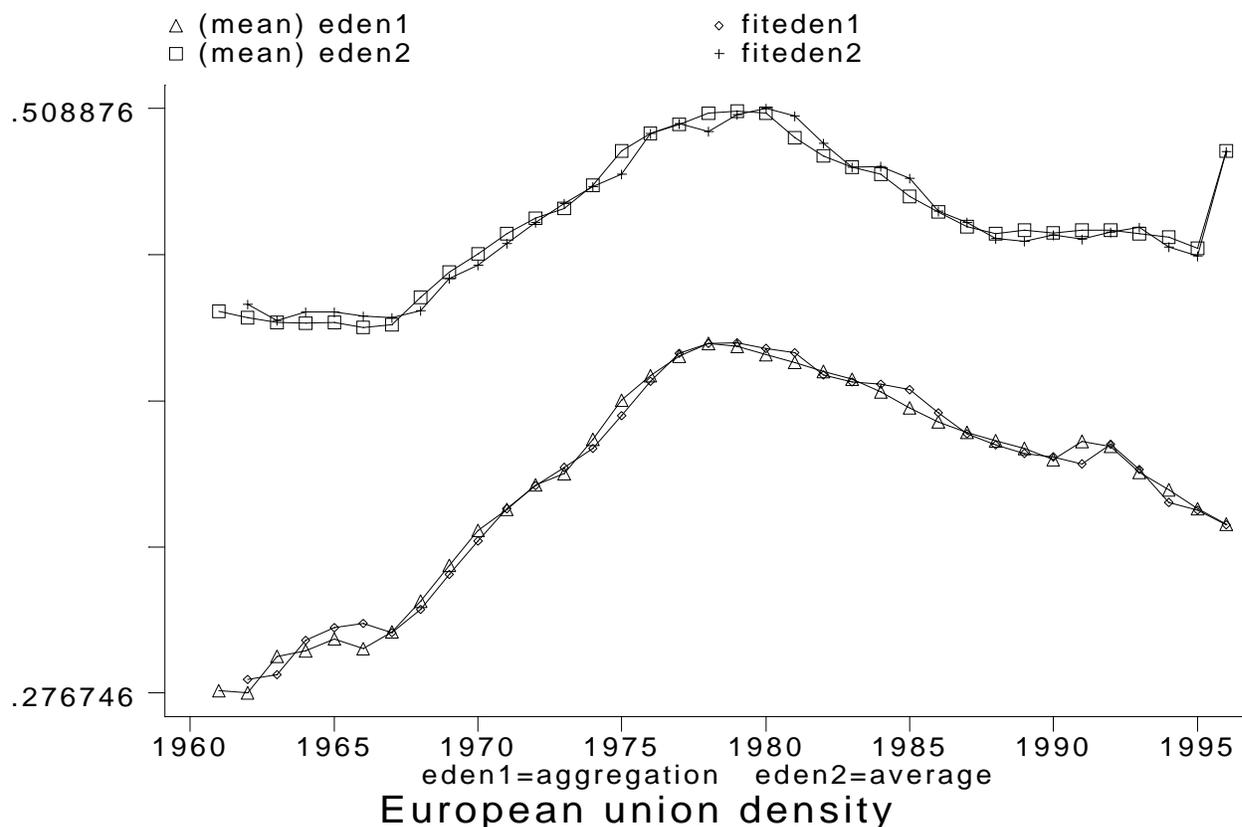
Though interesting, some caution should be used in interpreting this result. Considering the European labour market as a single entity is obviously a heroic assumption. Not only do different national unions pursue different objects and operate under different legislative frameworks, but national union members are not substitutable at all, and the bulk of the national labour forces is not very mobile at international level. As a result labour market spillovers are still very limited, and the prediction of the present model can be taken just as a rough prediction of long-term evolutions. However, we believe that there is some truth in the

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[54] The estimated values are analogous to those obtained in the panel estimates: the long-term elasticity with the unemployment rate is –0.57, whereas with the employment rate is –5.31 (which is higher

claim that when, or if, the "Eurosclerosis" comes to an end, this could bring about a trend reversal for European unions.

3.5 Further considerations on the relationship between unemployment and union density

Building on the theoretical results reviewed in the initial sections, we want to readdress the problem of the effect of unemployment on union membership. Let us consider a population of heterogeneous individuals. There will necessarily be some marginal workers who are indifferent between being a member or not. The unemployment rate lowers their outside option by lowering the expected wage in case of layoff. On one side they will evaluate the expected gain for remaining members, which could decline for a 'wage effect' (if the bargained wage is a mark-up on the outside option), but could also increase for a 'protection effect' if the unions provide employment protection against unfair dismissal for members and/or unemployed targeted services. On the other side, the expected utility from not being members may also vary if for example the unemployment risk is differentiated among different types of workers (for example due to skill-biased technical change). Overall it is impossible to predict a univocal effect of unemployment onto aggregate membership. Our finding that in the short-term past unemployment rates tend to exert a negative impact in most (but not all) countries could be taken as evidence in support of the claim that unemployment reduces expected gains from union activity. The additional finding that unemployment has a long-term negative relationship with density does not provide further support to the same claim, since we cannot ascertain the direction of causality.[55]

On the other hand, when unions provide their members with private goods, either in the form of legal advice (which translates into a reduced probability of unfair dismissal)[56] or in the form of direct provision of benefits (from legal and pension advice to job training, from

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than the panel estimation).

[55] In the aggregate, causation may go in the opposite direction: if union power is correlated with union density, more powerful unions bargain higher wage increases, yielding lower employment and/or higher unemployment. See Nickell 1997 and Blanchard and Wolfers 2000.

job placement to direct allocation of benefits) the relationship between unemployment and union density becomes positive, as witnessed by Nordic countries, where short-term correlation is negative but long-term one is positive. Is the provision of private goods sufficient to account for the diversity of the "high density" countries we have recorded in the country by country estimates ? In our opinion, the answer is negative. Only in the Danish case (where the unemployment benefits are conditional to being enrolled in private "insurance" funds, which are mostly administered by unions) do we find an institutional device directly explaining such a correlation. In the other Nordic countries, the relationship has probably to do with the general perception that unions are deeply involved in the fight against unemployment. As a consequence keeping a union strong (in terms of members, resources and financial resources) is equivalent to "voting" for wage moderation and employment policies. So long as this commitment of unions is credible, and unemployment remains under control (by the government, the unions and their counterparts), a positive correlation persists. As soon as confidence in the unions' ability to protect against unemployment decreases, the relationship may revert to negative.

"In this section of the report we have presented the results of a detailed statistical analysis of the union membership data described in section 2. One of our main findings is that cyclical components are a major determinant of union density in European countries. Our results suggest that if unemployment were to fall in Europe, then this would be likely to be associated with a return to higher levels of trade union membership density: 'other things' constant. Of course, relevant 'other things' will not remain constant for very long: European economic integration is deepening and this is likely to have significant repercussions for both union influence and union presence in the labour market. These questions are explored in section 4 of the report. Section 5 then explores issues such as how the ways in which unions behave – e.g. the level of wage coordination – have been changing in Europe over time. Finally, section 6 addresses important macroeconomic questions such as how bargaining and bargaining coordination are likely to develop in the context of a unified European monetary system."

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[56] Blanchflower and oths 1990 find a positive correlation between local unemployment rates and union density at firm level, and explain it as a result of insurance provision by the unions. On the evidence of provision of excludable incentive goods by unions see Booth and Chatterji 1995.

4. Wage Bargaining: competition, trade, surplus and power

This section examines the determinants of union influence over wages. We briefly review the existing literature on this issue, before examining specific issues in more detail. In particular, we focus on the impact of trade and economic integration on union wage influence. In our discussion on the effects of trade, our main theme is that if changing patterns of trade do not enhance product market competition - and there should be no presumption that they must - then there is little reason to suppose that the conditions for unions to influence wage outcomes will necessarily deteriorate as a consequence of product market integration. We explore the theory and evidence relevant to this issue. Our discussion connects with the analysis presented in Part 2 of the Volume produced for the 1999 Conference organised by the Fondazione RODOLFO DEBENEDETTI.

4.1 Review of literature on union wage effects: theory and evidence.

For a trade union to be able increase wage rates above the competitive level, two conditions must be satisfied. First, there must be some surplus that can be shared between the firm and the union, and second, the union must have sufficient bargaining power to induce the firm to share any such surplus. In the following sections, we consider the product market conditions in which a surplus or rents arise that may be shared with unions. We then consider briefly the conditions necessary for a union to achieve sufficient power to induce firms to share any rents. Both of these issues are important in speculating on potential union influence in the early decades of the twenty-first century.

Some readers may consider an analysis of union power to be largely academic in the European context, because unions are so firmly entrenched in EU member states. But we argue this is not the case. There is sufficient variation in union power and influence across EU member states to make consideration of this issue relevant, as earlier sections in this report show. We also believe that this evidence undermines the view that might be taken by other readers, that union power is irrelevant in discussions of economic outcomes in the 21st century. Moreover, it is almost a certainty that EU membership will expand in the near future, by the inclusion of countries from the former East European economies. These new member

states will not inevitably bring with them an established collective bargaining system, and indeed may be in the relatively fortunate position of being able to design a relatively efficient employee relations environment.[57]

4.1.1   What determines the size of the available surplus?

Even if a union controls labour supply, it will not necessarily be able to negotiate a large wage increase relative to the competitive wage level. The magnitude of the union wage effect in any particular labour market depends crucially on the elasticity of labour demand in that sector, which is of course a derived demand and which depends on product market factors, among other things. Product market power generates monopoly (or, in the case of market dominance by a small number of firms, 'oligopoly') rents that may be captured by employees in the form of higher wages or better working conditions. It is important to note that these rents can be captured by employees with bargaining power even in the absence of unions. Whether collective rather than individual bargaining power will be the most influential channel through which workers might attempt to capture a share of employer rents will depend on the workers' skills and on labour market conditions, *inter alia*. In perfectly competitive labour markets in which firms pay market-determined wage rates, there is no rent-sharing with (or 'rent capture' by) employees. The firm will typically share its monopoly rents only if the workers have sufficient bargaining power to induce the firm to do so, or if sharing increases the size of the surplus. Finally, we note that under certain labour market conditions - those associated with 'monopsony' - firms may have sufficient power in their labour market to be able to push wages below competitive wage levels. In such cases, union bargaining power can be thought of as a countervailing power, offering resistance to employers' attempts to force on workers conditions inferior to those which would obtain under competitive conditions.

The size of any available surplus depends crucially on the nature of competition in the product market. If the firm is the sole supplier of a good - a true monopolist - then the surplus

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[57] See Jones (1996) and references therein for a discussion of some of the issues relating to 'successor' unions in Eastern Europe, as compared with new unions that emerged post-Communism. In 1998, the European Union began negotiations with six central and Eastern European Countries seeking EU membership (Czech Republic, Estonia, Hungary, Poland, Slovenia and Cyprus).

depends crucially on the elasticity of product market demand. If the product market is perfectly competitive, at the other extreme, there will be a surplus only under rather particular circumstances, where the competitive firm's production function is characterised by decreasing returns in the neighbourhood of the equilibrium.[58] Between the extremes of pure monopoly and perfect competition lies the case of oligopoly, where a small number of firms dominate the product market.[59] In this case, the extent of surplus generated depends not only upon the industry elasticity of demand, but also on the nature of strategic interactions between firms: for example, whether they choose to collude in the manner of a cartel, or instead choose to adopt aggressively competitive strategies against one another. In general, the less competitive are the firms, the greater will be the capturable profits for unions. As we discuss below, the bargaining arrangements between firms and unions under oligopoly will be important influences on unions' capacity to capture oligopoly rents. Importantly, the surplus available will also depend on the extent of barriers preventing new firms entering the market, on product market regulations, and on the threat of foreign trade where markets are international or global (Stewart, 1990; Nickell, 1999).

An interesting question, then, concerns what might happen to the extent of monopoly power as the single market programme in Europe deepens. Jacobson and Andreosso-O'Callaghan (1996) found that there was diversity of movement in 4-firm EU concentration ratios in different industries. They found that through the 1980s the concentration ratio rose in industries such as Food, Drink and Tobacco, Engineering, and Metals (Production and Processing). Interestingly, comparison of 40-firm concentration ratios for manufacturing industry shows that there is more market domination in the US than in Europe (see Jacquemin *et al.* (1989)): this may indicate that over time with market integration concentration ratios in Europe may grow.

The necessary conditions for a union to be able to appropriate any surplus in a competitive product market, without driving the firm out of existence, are - very high levels of unionisation in a competitive industry, no non-union foreign competition, entry barriers, and inelastic product demand. Without the first three conditions, domestic firms, or foreign firms, or new firms entering the industry could simply hire non-union labour and produce at a

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[58] See Booth (1995:54).

[59] Similarly, monopolistic competition could be thought of as intermediate between pure monopoly and perfect competition.

lower cost than unionised competitors, thereby driving them out of business (Booth, 1995).

Finally - as indicated above when considering the circumstances in which unions might be able to raise wages even under competitive market conditions - the extent of foreign competition to unionised firms is a crucial determinant of the capacity of unions to raise wages. Even if a unionised firm has a domestic monopoly, the existence - or even merely the threat - of foreign competition is likely to restrict the ability of the firm to charge prices high enough to generate super-normal profits, or 'surplus'. Hence, one might surmise that European integration will tend to erode the capacity of unions to establish wage premia: so long as it is the case that integration generates a greater degree of product market competition - especially of foreign competition. It is possible, however, that the predominant economic forces associated with the changing patterns of trade - and FDI - in Europe are not competitive but oligopolistic. If this is the case, European integration might not weaken union bargaining power to the same extent. We explore these issues further in Section 2 of this section.

4.1.2   Unions, surplus and efficiency

Economic theory states that if unions emerge in competitive and efficient markets, high union wages will introduce allocative inefficiencies into the economy through the distortion of factor prices. With higher wages in the union sector, union firms employ fewer workers. Displaced union workers crowd into the nonunion sector, lowering wages there. As a result, too few workers are employed in the union sector where output falls, while too many workers are employed, and too many goods produced, in the nonunion sector. There is a deadweight efficiency loss, because the value of marginal products in the two sectors are not identical. In addition, there are distributional issues to consider, and longer run effects due to substitution of capital for labour. Furthermore, in unionised sectors there may be under-investment in capital (see for example Grout, 1984).

However, this analysis of allocative inefficiency assumes that unions emerge in an economy characterised by competitive product and labour markets. But there is considerable evidence that, in modern industrialised countries, many product markets are characterised by imperfect competition. In addition, it is a well-established empirical regularity that imperfections in product and labour markets are correlated, see Stewart, 1990; Peoples, 1998;

Neven, Roller and Zhang, 1998; Duca, 1998. Thus, it is far from clear that the competitive product market paradigm is the appropriate benchmark from which to examine the impact of trade unions. And when we consider unions in an imperfectly competitive setting, our view of the impact of unions is very different from that associated with the competitive model.

In addition, labour markets themselves may not be perfectly competitive even in the absence of trade unions. For example, nonunion firms may also face an incumbent workforce with a degree of bargaining power, perhaps due to transactions and worker turnover costs (Lindbeck and Snower, 1988). Thus even in the absence of unionisation, management and workers may be in a situation of bilateral monopoly. An important and little addressed question arises as to whether or not the replacement of individual bargaining by collective bargaining generates additional inefficiencies and misallocation of resources in situations where markets were previously not functioning in accordance with the textbook model of perfect competition.

Even within the competitive model, there are arguments suggesting that, in the presence of imperfect information and uncertainty, unions may enhance efficiency. To the extent that unions reduce labour turnover and negotiating costs, and act as the agent of workers, they may increase the available surplus to be shared between parties (Freeman and Medoff, 1984; Faith and Reid, 1987). Of course, there may be an interdependence between the monopoly and efficiency roles of trade unions: unless the union has some bargaining power, it may be unable to increase efficiency (see Section 5 of the current volume for a further discussion of some of these issues).

4.1.3   What determines the extent of union bargaining power?

Union leaders are well aware of the fact that one source of union power is the capacity to organise all workers in an industry, thereby acting as a monopolist over the supply of labour. Union bargaining power derives from the ability of the union to inflict damage (or to *credibly threaten* to inflict damage) on the firm or employer by withdrawing labour. This is most effective when there is no substitute pool of nonunion workers - for instance if there are high labour turnover costs, or if the union controls labour supply through entry restrictions, or through having high levels of membership relative to the size of the sector. But in an

increasingly integrated global economy, union control of labour supply in an industry becomes ever less likely. The more footloose is industry through increased mobility of physical capital - for example through foreign direct investment and transnational enterprise - the less able are unions to control the supply of labour within an industry

In recent years, however, many commentators have reported a trend toward a decentralisation of bargaining in a number of countries, with an increasing incidence of firm or plant-level bargaining. This places more importance on the local bargaining power of the union. In the rest of this section, we outline the factors which will influence union bargaining power when bargaining is decentralised and takes place at the local workplace level. Because local bargaining has an established tradition in the UK, and because of the extensive empirical analysis based on British workplace industrial relations surveys, our discussion is illustrated predominantly by examples and results drawn from the UK. However, we argue that the analysis has more general application to countries experiencing a decentralisation of bargaining.

It has been commonly argued that forces related to globalisation have been rendering unions powerless to achieve their traditional objectives. It is perhaps too easy to exaggerate this position and neglect other influences on union bargaining power. In this context, it is important to identify the conditions affecting the capacity of unions to influence pay and other working conditions. For example, understanding these various aspects is vital for union organisers if they wish to maintain/increase membership at a time of 'deunionisation' and thereby retain a significant degree of influence in the workplace. It is also important for policy-makers to understand how unions affect pay and working conditions and how union-firm interactions vary with factors such as product market conditions.

What determines the degree to which a *local* union can bargain for wages and/or working conditions superior to non-union levels? Important influences include local membership density, the nature of bargaining arrangements, management attitudes, the legislative environment, and union structure and modes of governance. We now discuss each of these in turn.

(i)   Local union membership density

Union membership density within the workplace may play a part in determining the power of the local union to extract from the firm a share of any rents. As membership density increases, there is a shrinking pool of workers available to the firm should it choose not to employ union labour. In the language of game theory, higher local membership reduces the firm's 'inside option' or conflict (e.g., strike) payoff. (The 'outside option' is also important: - in theory, the firm can sack all its employees and go to the outside labour market to hire, so the available pool of workers in the industry – and hence industry union coverage - is also a relevant factor.) In practice, employment protection legislation will define both the inside and the outside option. In the UK, as in the US, legislation gives firms some latitude to replace striking workers both temporarily and permanently: this is not possible in most European countries. This varies across European countries. One corollary of this analysis is that there is likely to be a minimum critical level of membership below which firms will refuse to recognise and bargain with the union (Osborne, 1984). Where membership density is crucial to the union's monopoly power, as for example with the emergence of the general unions, the union must consider how to attract workers at the margin. The basic problem for economists in explaining why workers join a union relates to the free rider problem, arising because of the collective nature of many of the goods provided by the union (Olson, 1965; Booth, 1985; Naylor, 1989). Why join the union when union dues are costly, and when the benefits are not immediately available or apply to all workers regardless of their union status? This issue is addressed in more detail in Sections 2 and 3 of this report. One implication of the models of Booth (1985) and Naylor (1989) is that there are likely to be multiple equilibria in the level of union membership density. One corollary of this is that any fall in membership brought about by *temporary* shifts in behaviour or conditions may be persistent or permanent. To some extent, union membership is supported by traditions and social pressures or norms. If these are undermined, the process of rebuilding can be lengthy and, perhaps, unsustainable.

Beyond some minimum critical level of density, whether or not there are losses in having some free riders will depend on the cost structure in the provision of union benefits and services, and the relationship between union density and bargaining power. The union's provision of benefits and services may be crucial in obtaining and maintaining its critical

level of membership density in the absence of coercion. In the presence of uncertainty and high individual transactions costs, the union can act as an agent providing for its membership a variety of services (collection of information, contract services, evaluation of wage and fringe benefits, monitoring of firms' performance, aggregation of worker preferences, and communication of these to the firm). Since the cost of provision of these is subject to 'economies of scale and jointness characteristics' (Faith and Reid, 1987) workers gain from sharing an agent rather than each individual arranging for provision of the services. Firms can also gain where there is specific human capital and the union develops governance structures reducing labour turnover.

Of course, the demand by workers for the services of an agent-union depends on what services are available elsewhere; for example, firms or the state may provide some of the services listed above (see also the second report prepared for this Conference). Workers' demand for union services cannot be considered in isolation, since it is likely to be interdependent with employers' personnel policies, the state's welfare policies and any union involvement in these, and labour legislation (Booth, 1991; see also the second report prepared for this Conference). Larger unions have funds and investments and experience in dealing with their assets, and can more easily negotiate preferential rates for membership, *et cetera,* than smaller unions. How can unions compete against private firms in the provision of these benefits? Such factors would include: economies of scale, or the ability of unions to get preferential rates from another firm if large, or union membership might signal workers commitment and stability and reduce adverse selection problems for insurance companies.

Union bargaining power, then, is likely to be influenced by the level of local trade union membership density, where density is not exogenously given. The determinants of membership have been examined in some detail in Sections 2 and 3 of this report. Local membership density is likely to be an important determinant of union bargaining influence for reasons discussed in Booth and Chatterji (1995) and in Barth, Raaum and Naylor (2000): local density, for example, is likely to be a key determinant of the credibility of the strike threat. It does not follow, however, that the relationship between density and influence is simple. For example, it may well not be a linear mapping between density and wage influence. Interestingly, in their analysis of UK establishment-level data, Metcalf and Stewart (1992) find that in the absence of closed shop bargaining arrangements, unions are unable to

raise wages above non-union levels unless membership density in the establishment is as high as 95%. It is likely that the critical or threshold level varies across establishments according to legal rights, technology and labour market conditions.

(b)   The nature of bargaining arrangements

Even if bargaining occurs at the local level within the firm or workplace, there is great variation in the form that the bargaining might take. One way in which local bargaining structures can diverge arises from union organisation, which may be based on industrial lines or be craft or occupationally based. The evolution of craft unions in the UK provides a partial explanation of the widespread - though diminishing - incidence of multi-unionism, which occurs when a heterogeneous workforce at a single workplace is represented by more than one union. In such a situation, various forms of bargaining might arise. Most obviously, bargaining might be either 'separate' - with the employer bargaining separately with each union - or 'joint' - in which case the employer and representatives of all the local unions bargain together. Machin, Stewart and van Reenan (1993) have examined the impact of these different kinds of bargaining arrangements on various outcomes. They find that multi-unionism itself has no significant outcome on bargained outcomes: there is no difference in outcome according to whether there is a single union in the establishment or a joint bargain involving a number of unions. Instead, there is a significant difference between separate bargaining by multiple unions (which is associated with higher wage levels and has a deleterious effect on financial performance), and single or joint bargaining (which have less significant effects).

Horn and Wolinsky (1988a) present a theoretical analysis of the factors influencing the choice between joint and separate bargaining. They show how the degree of substitutability between different types of labour input will affect the incentives for unions to bargain separately or jointly. The intuition behind the result is the following. Suppose that a firm employs workers to carry out two different kinds of task within the firm, and that if one of these work groups is on strike the other work group is unable to carry out their own tasks effectively (this would happen, for example, if the first group produced an intermediate output which was an input for the activities of the second group, and if the firm did not hold

inventory stocks). In the language of economists the two work groups are said to be 'complementary' – rather than 'substitutable' – factors of production within the firm. In such a situation as this, Horn and Wolinsky show that the workers will be able to bargain higher wages if they bargain separately with the firm in two distinct unions than if they bargain jointly: effectively, by dividing they rule the firm! This is because each union by itself is in a strong position in the event of a conflict: each knows that the firm's production will be severely constrained by a strike by either work group. Conversely, if the two groups of workers are substitutes for one another – i.e., in the event of a strike by one group, the firm can continue to produce by using the other group (perhaps more intensively) – they are best off forming a single union (or, at least, bargaining jointly) as this prevents the firm from dividing and ruling *them*. The Horn and Wolinsky model can be thought of as providing an example of how the choice of production technology will influence the nature of bargaining between the employer and workers and, by implication, the bargained outcome itself (see also Naylor, 1996). There has been surprisingly little analysis of the impact of bargaining structure on economic outcomes in the literature, other than that focusing on the issue of the impact of unions on investment and innovation. But the studies that exist suggest that the bargaining structure plays an important role.

In some countries - such as the UK – there has been a shift away from union contracts and towards individual contracts. This shift is associated with diminishing union power, and may further exacerbate problems of declining union power. However, the new UK recognition machinery – introduce by the Labour Government in its 1999 Employment Relations Bill – may reverse this trend. The new recognition machinery (loosely based on US representation elections in order to formalise and legitimise union recognition) may also lead to even more decentralisation, in the US style.

Finally, bargaining arrangements also diverge with respect to the extent of union control over labour supply. For example, pre-entry union closed shops in the UK were widely held to be an extreme – and rather rare – example of unions exercising significant control over labour supply. To a large degree, the extent of union control over labour supply will depend on the legal framework and legislative environment in which bargaining takes place. This is discussed below.

(c)	The legislative environment

Bargaining theory predicts that the bargained outcome is likely to be sensitive to the conflict payoffs available to the two sides in the event of a strike by workers (or a lockout by employers). Conflict payoffs can be thought of as the income that firms and workers can continue to command in the event of a dispute. Moene (1988), for example, has shown how the nature of the conflict threat available to workers will influence the bargained wage. Union wage influence will vary according to whether workers can credibly threaten strike action or a go-slow or a work-to-rule, for example. Clearly, the nature of the legislative environment is an important factor in determining which of these options is legally available to unions. Technological and product market conditions are also likely to be important influences on the extent to which firms' profits are damaged by industrial conflict. Labour market conditions may also be important, as will be the extent of sympathetic, solidaristic and secondary supporting action of other unions. Legal provisions will also condition the possibility of such actions. It would be interesting to assemble a European database showing how the legal position of striking workers varies across countries.

The extent of union coordination and solidarity across national boundaries will also be an increasingly important factor affecting the outcome of union-firm bargaining. Similarly, the conflict pay-off of the union itself will be an important determinant of the credibility of the union to threaten industrial action. The eligibility of striking workers to state welfare payments will be one influence on this. Another will be extent of union funds available to award strike pay to striking workers. Finally, union solidaristic support - nationally and internationally - will also be an influence. Thus an important issue concerning the determinants of unions' bargaining power - as far as it is likely to affect both parties' conflict payoffs in the event of industrial action - concerns the prospects for European-wide union communication and collusion as capital and product markets become increasingly pan-European. The policies of the European Commission in encouraging the participation of its 'social partners' at the EU-wide level are also important. We return to both these points below.

The extent to which unions can control the available supply of labour to a firm, depends in part upon the legal status of the individual worker's right to remain outside a union, as

opposed to the right of the union to require all workers to be union members. In the UK, there were until the mid-1980s two forms of closed shop arrangements under which unions could require workers to be union members. The pre-entry closed shop gave the union more power over labour supply as it enabled the union to dictate to firms the pool of workers (i.e., the set of registered union members) from which the firm could recruit. The post-entry closed shop, in contrast, merely enabled the union to require all employed workers (not the entire pool of all possible workers) to become union members *ex post*: i.e., after they had been employed by an (unconstrained) employer decision on recruitment. Stewart (1987) showed that the pre-entry closed shop gave a big boost to the capacity of the union to raise wages above non-competitive levels: the post-entry closed shop much less so. Metcalf and Stewart (1992) further showed that the abolition of the closed shop under the Thatcher administration accounted for much of the reduction in the capacity of British unions to influence wages over that period.

Indeed, the Thatcher governments in the UK instituted a number of legislative changes which had the intention of reducing trade union bargaining power. As well as legislation to abolish the closed shop, policies were targeted at making strikes more costly to organise and less damaging to firms. Thus, strict conditions regarding strike ballots were introduced, as was the legal sequestration of union funds, and the legal status of secondary and sympathetic actions was undermined. Furthermore, striking workers and their families were disqualified from claiming supplementary social welfare payments.

Additionally, the legislative environment is likely to be an important influence on the extent of union membership itself. This issue has been examined in some detail in sections 2 and 3 of this report. Here, we note simply that Freeman and Pelletier (1990) have argued that much of the decline in union membership in the UK can be attributed to an increasingly hostile legislative environment facing unions after 1979. We note also that this view is not without its critics (see for example Disney (1990) and that other explanations have been put forward, namely compositional effects, changing attitudes towards neo-conservatism, and the business cycle (see also Booth, 1995 and references therein). From the union perspective, the importance of the legislative environment for membership and influence also relates to the role of management attitudes to unions. To this issue we now turn.

(d)   The role of management attitudes to unions

Historically, many UK firms have been favourable to union organisation.[60] This is less well appreciated in other areas of economics and in much public discourse. There are, however, many reasons why firms might actually wish to encourage some form of union organisation in the workplace, and some of these reasons are discussed elsewhere in this report. An interesting research project would involve examining how firms' attitudes to unions vary across Europe and why. Not all firms, of course, are favourable to union organisation and some are particularly hostile. Management opposition to unions in a more anti-union legislative environment has been put forward as an explanation of union decline both in the US and in the UK. Building on the work of Freeman and Medoff (1984), Dickens and Leonard (1985) and Freeman (1986), Freeman and Kleiner (1988) argued that the growth of management opposition to unions was a major cause of the decline in private sector unionism. For the later decline of union membership in the UK, Freeman and Pelletier (1990) concluded that a major factor was the change in the legislative environment which, "strengthened management's hand in opposing unions." Current legislation in the UK is introducing US-style union representation elections. In part the motivation for this is to formalise and legitimise union recognition status. If US experience is relevant to the UK, however, it is arguable that this step will foreshadow more explicit hostilities between organised labour and anti-union employers.

(e)   Union governance and union preferences

The earlier sections in this report documented the extent and causes of the decline of union membership in a number of European countries in the last two decades of the 20th century – in what has sometimes been referred to as a period of 'deunionisation'.[61] But can trade unions recover in the early decades of the 21st century? We shall be addressing this question in the conclusion to this report. But it is worth noting here that the answer to this

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[60] Brown (1981) found, from survey evidence, that management at that time strongly supported the closed shop. The UK experience in this regard contrasts with that of the US. This may in part be due to the fact that British employers in much of the nineteenth century were sheltered from international competition through their technical lead from the Industrial Revolution (Phelps Brown, 1986).

question depends on whether or not trade unions can still play a role in representing their workers' interests better than workers can do themselves.[62] Union coverage - discussed elsewhere in this report - is important here. Equally important are the governance of trade unions and the extent to which they are democratic.

Unions are typically large organisations with a complex hierarchical structure comprising an executive, a shop-steward system, and a body of rank-and-file union members. Clegg's (1980) taxonomy of unions is still relevant today: at one extreme, unions can be viewed as oligarchic, unresponsive to members' wishes, and with an executive securing a monopoly of power to stay in office with low membership participation and apathy. Alternatively unions may be quasi-democratic, due to the presence of informal parties or factions, growth of workplace organisation, and existence of workplace or postal balloting.

Because of these complexities in union internal structure, there are likely to be considerable time lags in the transmission of preferences from membership to executive. Moreover, the executive may have aims that conflict with the desires of the membership. There is no guarantee that the union will be the perfect agent of workers, although fluctuations in membership levels affect the union's power base as well as its finances, so this may moderate leaders' behaviour. Union organisers might find it useful to consider these factors when assessing their relevance in the 21st century.

4.2   The impact of trade, integration and FDI in Europe on union bargaining power.

In the first volume in this series, Bertola, Boeri and Nicoletti (Editors, 1999) argue that, even with increasing cross-border competition, persistent cross-country price disparities demonstrate relatively weak competitive pressures in EU product markets. They suggest that this results from the continuing presence of significant market power even in apparently competitive industries such as manufacturing. They observe that it is of particular concern that price convergence in the EU seems to have slowed down after the establishment in 1992 of the Single Market. Part 2, Section 2 of the 1999 volume presents a discussion of the

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[61] See for example Acemoglu, Aghion and Violante (2000).

[62] In the UK for example, unions have traditionally represented the interests of men, leaving youth and working women's welfare to be determined by legislation. Such considerations are of obvious importance with the increasing feminisation of the workforce.

economic theory relating product market competition to labour market performance. The analysis shows that an increase in product market competition would be expected to lead to an increase in employment: not least because of the direct link between product and labour demand elasticity. As stated in the 1999 Report, the effects on wages, however, are likely to be more complex: on the one hand, greater labour demand elasticity will tend to lower any union bargained wage level but, on the other hand, the outward shift in labour demand (stemming from the output effect of greater competition) will lead unions to demand higher wages (see also Naylor (1998, 1999)).

There are three essential points to note. The first is that opening up domestic markets to international trade may favour large-scale transnational firms which might actually undermine the extent of competition in national product markets. Economic integration does not necessarily imply greater product market competition The second point is that, as in the example we set out below, intra-industry trade can have 'reciprocal dumping' characteristics meaning that more trade can actually be welfare-damaging, even while having small positive effects on the extent of competition.

The third point, again demonstrated in our example, is that economic integration might enable large powerful firms to spread their activities more broadly across integrating national product markets and thereby to capture increasing rents: thereby creating some opportunity for enhanced rent-seeking by unions. To illustrate this, consider the following situation. Suppose that, in a particular industry, two large firms dominate the product markets of two European countries, with one firm based in each of the two countries. Suppose further that there is trade across the borders of these countries in the output of this industry, even though the output of the two firms is essentially identical: i.e., there is intra-industry trade in a homogeneous commodity (see, for example, Greenaway and Milner, 1986). Trade is not based on specialisation or comparative advantage, but originates from the incentive that each firm has to capture some of the rents of the foreign rival. With each firm competing in both its home market and in the foreign market, output (and welfare) will be higher and prices and profits will be lower than if each firm had a domestic monopoly unbroken by trade. Nonetheless, unless the two firms compete particularly aggressively, they will enjoy the high level of profits that a two-firm duopoly will afford them, even if they do not enter into collusive practices. It is highly likely that the rents that accrue to them will have enabled trade

unions to bargain some share of the surplus in the form of wages above competitive levels.

Now suppose that the costs associated with trade between the two countries in this particular product, while not so high as to prohibit intra-industry trade, are nonetheless significant. For example, there may be non-tariff barriers inhibiting the free flow of goods across national boundaries, or currency, transport and transaction costs associated with this kind of trade. Single Market provisions intended to reduce such costs will enable the two firms to penetrate each other's domestic market more cheaply and effectively. Within each market, competition between the two firms will be more equal and, with lower costs, output and employment will be higher and prices will be lower. Profits will be higher or lower according to the extent of the fall in direct trade costs. What about wages? If labour markets were anyway competitive, there may be no strong reason to suppose that wage levels will have changed, in the absence of macroeconomic or general equilibrium forces. But in such an imperfectly competitive product market as the one we are illustrating, it is very likely that workers will have organised collectively in order to capture a share of the duopoly profits. In this case, the employment expansion generated by the greater degree of product market integration is likely to lead unions to seek higher wages. Success by one union in one of the countries will greatly facilitate the prospects for its international 'rival' union, as labour demand in each country will be increasing in the wage paid by the rival firm: expressed differently, the two unions' 'best-reply' wage-setting functions are positively-sloped. The simple intuition here is the following. If two firms are rivals in a product market and the wage paid by one rises, then there is an increase in the (derived) demand for labour in the other firm which will induce the union to seek a wage rise: wages are strategic complements.

Economic integration in this example has led each firm to penetrate more deeply into its rival's market, and hence to increase the extent of competition between them. Yet there remains a fundamental lack of competition in a market dominated by just two firms: two firms, indeed, whose profits will have been enhanced by the very action of reducing the costs of trade, through which integration is working. The forces of integration in this example will not necessarily lead to a welfare improvement. Nor do they necessarily induce significantly greater competition, either in the product market or in terms of wage setting behaviour. This illustration underlines the importance of direct policy measures aimed at enhancing the competitive functioning of product markets: public policies to enhance product market

integration may be a necessary element in a package of measures to enhance product market competition in Europe, but they are not by themselves sufficient. Indeed, one could argue that European public policies on integration are themselves but a counter-balance to the greater economic forces generating integration: those associated with trade in products (and in capital). When trade takes the form of market domination by leading European or global firms, integration is not synonymous with competition. Furthermore, if one is interested in predicting the effects of integration on the prospects of unions to bargain for high remuneration, this understanding of the importance of the distinction between integration and competition is fundamental.

How likely is it, then, that this illustration is a relevant description of the actual features of product markets in the EU? If much of the observed trade in the EU takes the form of intra-industry trade (and especially if the proportion of intra-industry trade in all trade has been growing over time), then this will be *prima facie* evidence that the process of integration may not necessarily promote wage restraint.

It has been estimated that, in the early 1980s, approximately 45% of all intra-EU trade took the form of inter-industry trade (see, for example, CEPII, 1996). By the mid-1990s, however, this proportion had fallen to about 38%, with intra-industry trade coming to dominate intra-EU trade. Intra-industry trade itself is usually divided into that which takes place in similar products and that which is characterised by trade in differentiated products. The argument developed above applies to either variety (see, for example, Naylor (2000)). The overwhelming majority of the rise in intra-industry trade within Europe seems to have been in the form of trade in differentiated products. Table 5.1 shows that by 1996, more than 43.3% of intra-EU trade was in the form of intra-industry trade in vertically differentiated products. We also observe that there is some tendency for those industries in which trade is predominantly inter-industry to be characterised by typically low levels of trade union density: e.g., agriculture, food and beverages, and textiles. Conversely, unionisation rates tend to be relatively high in industries associated with 'two-way' or intra-industry trade: e.g., machinery, chemicals, motor industries. We conclude that the predominant trend in trade in the key period of the Single Market Programme has been towards intra-industry trade and that this is consistent with our argument that economic integration in Europe has not so far been necessarily damaging to the prospects for unions to capture a share of rents generated in

(persistently) imperfectly competitive product markets.

Table 4.1. Intra-EU trade shares by trade type.

	Two-way trade in horizontally differentiated products	Two-way trade in vertically differentiated products	One-way trade
1980	18.6	35.9	45.5
1981	19.2	34.8	46.0
1982	20.0	34.4	45.7
1983	18.2	35.6	46.2
1984	18.6	34.5	46.9
1985	18.3	35.0	46.6
1986	17.8	38.7	43.6
1987	17.8	39.8	42.4
1988	19.4	38.5	42.2
1989	18.7	39.7	41.6
1990	19.1	40.8	40.1
1991	19.8	42.1	38.2
1992	19.8	42.3	37.9
1993	19.1	43.8	37.1
1994	19.5	43.1	37.4
1995	19.5	41.8	38.8
1996	18.8	43.3	38.0

Source: Fontagné and M. Freudenberg, "Marché unique et développement des échanges," Économie et statistique, Vol. 6/7, No. 326-327, 1999.

Trade is, of course, not the only way in which enterprises may seek to supply foreign product markets. An alternative route - which may actually be either a substitute or a complement for trade - is through foreign direct investment (FDI). FDI takes different forms: it might, for example, be 'greenfield' investment in new establishments or it might be a merger or acquisition of existing firms. The fact that multinational enterprises are the main source of most FDI flows implies that the impact of FDI on product market competition is unclear. While an influx of FDI within an economy may be welfare improving in the short-run if relatively less competitive domestic firms are forced to raise efficiency or to fail, it may have a less beneficial long-run effect if it results in market domination by a small number of multinational firms.

Furthermore, it is worth underlining that FDI may have two motives. On the one hand, there is the incentive to move into a country in order to capture a share of product market rents. But on the other hand, FDI may also be motivated by strategic labour market

objectives: having production units in different countries can increase the bargaining power of firms which can credibly claim to be able to shift production during an industrial dispute. The two motivations towards FDI may have differing and complex implications for the capacity of unions to bargain for higher wages. If FDI enables large-scale transnational or pan-European enterprises to dominate EU product markets, then this will be anti-competitive and lead to welfare reduction and profit enhancement. There may be more surplus generated for workers to capture and this may drive unions to a stronger position than were product markets competitive. Against this, however, the transnational nature of production, through a divide-and-rule strategy, may strengthen the bargaining hand of the multinational firms and diminish union bargaining influence. In part, then, the likely impact of FDI on the bargaining position of unions in Europe will depend upon whether FDI is motivated by product or by labour market considerations.

That the issue is an important one is clear from the sheer magnitude of FDI in Europe. It has been estimated that, while worldwide FDI flows grew about five-fold between 1984 and 1990 (CEPS, 1996), the rate of growth within Europe was even greater. By 1993, two-thirds of FDI flows to developed countries were to the EU. Inward FDI flows have tended to concentrate on European countries with large domestic product markets (like the UK and France) rather than on those with relatively low wage economies (like Greece and Portugal).

Further evidence on the relative unimportance of labour market considerations comes from the observation that the ranking of countries by the extent of inward FDI from outside the EU is very different from that for intra-EU FDI. A similar conclusion can be drawn from the fact that the overwhelming majority of FDI in the EU is concentrated in the services sector. This is partly because the alternative to FDI - i.e., trade - is typically not an option in the case of services: the motivation is product market capture. We also note that union density rates tend to be lower in services than in manufacturing: thus the divide-and-rule argument is less likely to apply for both these reasons. Furthermore, we note that the divide-and-rule argument concerning FDI and multinational enterprise requires that, within the enterprise, plants in different countries are performing the same tasks. This is necessary to render credible the threat to supply from abroad in the event of an industrial dispute. Simple observation shows, however, that this is often not the case: in the car industry, for example, it is quite often the case that a company's plants in different countries perform different tasks -

production is organised vertically rather horizontally across countries. Potentially, far from weakening the bargaining power of trade unions, such an international mode of production could actually enhance union power. Indeed, in this case, unions may even do better by bargaining independently of fellow company unions in foreign plants, thereby obviating the need for international coordination across unions within multinational enterprises. Where production is organised horizontally, however, such coordination is likely to be very important. The difficulties of obtaining reliable data on FDI, however, has so far prevented any clear conclusions emerging over the effects of FDI on the overall bargaining position of European trade unions.

4.3   Conclusions

In this section, we have reviewed the major factors conditioning the extent to which unions will be able to exert an influence on bargained wage outcomes. We have argued that a pre-condition is that there must be rents available for unions to attempt to capture: and the most likely source of such rents lies in profits generated in imperfectly competitive product markets. We then addressed the issue of what factors shape the capacity of unions to succeed in capturing a share of any available rents. We then focused on the question of how the bargaining position of unions might be affected by increasing integration of European economies. We have argued that many of the economic forces associated with European economic integration and with the developing patterns of trade and foreign direct investment in Europe are unlikely of themselves to produce anything resembling perfect competition in Europe's product markets. ***More*** trade should not be confused with ***more competitive*** trade. In many ways, the description of trade as 'free' is a misnomer: freedom to trade – when it is dominated by large multinational corporations - does not engender free or 'perfect' competition. Instead, we have suggested that there is evidence consistent with the view that European product markets are failing to converge towards an acceptable competitive position. We have argued that this is likely to have major consequences for the behaviour of agents – firms, workers, unions – in European labour markets. This is consistent with the analysis presented in last year's report (Bertola, Boeri and Nicoletti, 1999). We have reviewed the evidence on union wage effects and, among other important findings, we have argued that the

capacity for unions to raise wages and to generally improve working conditions depends critically on the extent of product market competition: the less competitive are product markets, the better the prospects for unions to raise wages. Thus, a key determinant of the evolution of union influence, at least in the 'microeconomy' of firms and workers, will be the extent to which economic integration and European public policy succeeds in enhancing product market competition.

"This section of the Report has addressed a number of questions, including the issue of how deeper European economic integration is likely to impact on union behaviour and bargained wage outcomes. The section has also emphasised how union influence depends to some extent on the nature of bargaining arrangements. The next section continues this discussion, focussing in part on the important issue of the level of coordination and centralisation of bargaining. The section also addresses the impact of unions on efficiency and distributional outcomes."

5. Wider Dimensions of Unions Presence

Up to now the presence of unions has been discussed and documented primarily by way of reference to a rather narrow measure, the fraction of members in total employment (i.e., the membership or organisation rate). Yet focusing on this aspect can be misleading, particularly in European countries. In this section, we examine wider aspects of union presence, including issues of union coverage, recognition and forms of bargaining. In particular, two questions arise. First, how do unions make their presence felt beyond membership numbers? Second, and just as important for policymakers, what do unions do besides bargain over wages? To answer these questions in a European context, one need to think harder about how unions influence the economic environment of their members and, in particular, that of nonmembers. This section elaborates on union *presence* in Europe. To do this, it will be necessary to ask what unions do in the broadest sense; Section 5.1 takes up this point. In Section 5.2, the harder question is asked about available means: what mechanisms enable labour unions to perform these functions? Finally Section 5.3 concludes with some commentary on the deviation of union membership and presence over the past decades, and what one might expect from the future.

5.1. What *else* do European Unions Do?

There has been a long-standing debate over what unions do, and through which lenses these organisations should be viewed. Throughout the last century economists such as Marshall, Hicks, Dunlop, Leontief, Slichter and Lewis dominated the discussion and focused on wages. This emphasis may have been excessive, as Albert Rees (1962) pointed out. In the title of their acclaimed book *What do Unions Do?* Richard Freeman and James Medoff (Freeman/Medoff 1984) challenged the emphasis of monetary value of union membership and suggested that while wages and worker incomes were certainly a central objective of unions, a plethora of others must also be considered, all related to what Mancur Olson (1964) called "the logic of collective action." Invoking Hirschmann's (1970) famous distinction of *exit versus voice*, the authors argued persuasively that unions are not only monopolists, but vehicles for the collective expression of concerns and desires in the workforce. Given limited

individual bargaining power and large costs of renegotiating and mobility, unions may be an effective communication mechanism which would be difficult to replicate in a theoretical market setting of atomistic workers and firms.

Yet for most of OECD Europe, the message of Freeman and Medoff might have been seen as obvious, even disregarding large institutional differences between North American and European collective bargaining institutions. While the decline of unionism in the US continued into and through the 1990s, the same cannot be generalised to all OECD countries, as documented in the previous sections. Despite falling membership in most European countries, unions have been able to defend or even maintain their role in economic relations beyond mere membership numbers. In other words, union presence is manifest in ways other than that measured simply by membership. And through different facets of presence, unions have been able to maintain   sometimes surprisingly high levels of influence over different aspects of economic and political life.

5.1.1 Non-Wage Compensation and Working Conditions

It is clear that improving – and maintaining – income levels of working members is a primary objective of the labour union. The degree to which it has been achieved is the focus of much discussion in this report. Success in this area will depend on the ability of the union to exert control over aggregate labour supply at the level of the workplace or local labour market, or more precisely, to prevent outsiders from underbidding wages determined in collective bargaining. Many theorists have used the monopoly model as a metaphor for the trade union, arguing that simple tools such as the Marshall-Hicks-Rule and Nash bargaining rules go a long way in predicting outcomes.[63] This has already been examined quite carefully in Section 4.

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[63] The Marshall-Hicks-Rule (see for example Hamermesh (1993), Booth (1995)) states that the elasticity of labor demand is positively related to 1) the elasticity of demand for the product which uses labor in production; 2) to the ease of substitution of other factors for labor in production; 3) the elasticity of *supply* of these factors; and 4) the share represented by labor in firm total costs. Nash bargaining theory can be seen as either a normative theory of bargaining which relates the bargained outcome to the (relative) fall-back positions or *threat points* of the bargaining parties or a positive theory predicting the outcome of bargaining rounds among agents with different rates of time preference or other attributes. Binmore et al. (1986), Booth (1995)

Yet negotiating base pay is only one dimension of union activity. More general forms of pecuniary compensation are subject to union influence: overtime and weekend pay rates, holiday bonuses, and other fringe benefits are strongly associated with union presence. The fact that unions also bargain over these items instead of letting their members take the equivalent in pay is a signal that unions' interactions with its members and management may be considerably more complex. Unions also strive to influence average working conditions of their members, which broadly defined include standard working hours (the workweek), work schedules, overtime bookkeeping, workplace safety and environmental quality, promotion systems and bonuses, leave policy, etc. Finally, unions have traditionally exerted control over conditions for the termination of the employment relationship, one of the thorniest issues in labour relations. Conditions for severance are often – especially in Europe – designed to protect the weaker and more vulnerable members of the workforce, and the rhetoric of unions is normally directed at stirring emotions for these groups, which include women, older unskilled workers, workers with high levels of firm specific human capital and high seniority, and even minority groups. Undeniably, these aspects have resource costs, so the improvement of provision above some "market level" assumes the availability of surplus, as stressed in the previous section. In one sense, these aspects are amenable to the same analysis which one would apply to compensation. In a world with imperfect markets and indivisibilities, however, it may be economically sensible to discuss the union as a vehicle for more effective provision.

5.1.2 Distribution: Equity and Fairness

A sphere of influence noted by Freeman and Medoff (1984) but neglected until recently in most theoretical treatments of union behaviour is influence over the overall *distribution* of wages, working conditions and severance rules across individuals, plants, and industries. The distributional element of union activity is ubiquitous. The slogan "equal pay for equal work" seems to have an equivalent in almost every major language of the world and seems to accord with notions, however vague, of fairness and equity. Perhaps due to informational asymmetries, perhaps due to idiosyncratic characteristics of the employment relationship, it is

known that variation of pay in local labour markets can be significant.[64] It is also well-established that a large share of unexplainable wage variation occurs between and not within establishments, and that this variation is highly correlated with the ability to pay (i.e. profits). From a Rawlsian perspective, it may seem a matter of luck to an individual worker whether or not one is employed by a firm which can afford to pay good wages. As a result, unions tend to favour standardised single rate remuneration over individual pay, pay attached to jobs rather than persons (Machin 1999) and prefer industry or even nationwide bargaining to plant-level negotiations.[65] This also explains the application of egalitarian principles to pay structures across sectors and the blue-white collar distinction, as well as across enterprises (see Freeman and Medoff Section 5 for the US, but also Metcalf et al. (2000) for the UK). It should be noted that a critical dissenting view maintains that this simply reflects restraint of competition, with firms welcoming measures which prevent cost-cutting by competitors (Germany, Austria) and increases available surplus for both parties.

More generally, unions strive to impose uniform workplace conditions. This is often articulated as the protection of workers from arbitrary job quality shifts for which they are not responsible. This type of insurance can also be directed at reducing or eliminating pay decisions arising solely from managerial discretion, and replacing them with automatic progression schemes. Unions have been known to influence training and so-called "active labour market policy" in a number of OECD countries; one interpretation of this is the attempt to eliminate productivity differences which might lead to wage differentiation.

Evidence that unions compress pay is common in countries in which wages are set in bargaining at the plant level, which could be expected given the strength of this locus of influence.[66] Yet it seems to be operative in corporatist and centralized countries as well (see OECD 1997; for Sweden, Hibbs and Locking (1996) and Davis and Henrekson (2000)). Some suggestive evidence from Germany's Socioeconomic Panel is provided below in Table 5.1,

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[64] Sumner Slichter (1950) and Slichter et al. (1960) among others noted the large variation of earnings in local labor markets for workers of similar skill grade and experience, which union influence could in principle mitigate.

[65] Another justification has been adduced by Freeman/Medoff (1984) and Metcalf et al (2000) if the union implements the preferences of the median voter, and if relative wages matter to the mean matter, the equilibrium wage distribution is likely to be compressed and skewed relative to the distribution of productivities.

[66] See for example Metcalf et al. (2000) who examine union effects in the UK Labour Force Survey, or Freeman/Medoff (1984) and sources cited therein.

which fully interacts a simple Mincer equation explaining log earnings as a function of potential experience, experience squared and education with a dummy variable for union membership. The coefficients on these interaction terms can be thought of as a descriptive summary of the characteristic of German union members. Not only was the restriction rejected on the joint hypothesis that all interactions with the union dummy were zero, but the signs of the coefficients uniformly point to a reduction in the wage differentiating effect of potential experience and education.

Table 5.1. Union Membership and Returns to Human Capital in West Germany

Characteristics	1985		1989		1993		1998	
	Unrestricted	Fully Interacted	Unrestricted	Fully Interacted	Unrestricted	Fully Interacted	Unrestricted	Fully Interacted
Educ	.067	.078	.065	.076	.069	.076	.063	.070
Exp	.032	.035	.031	.034	.033	.037	.034	.034
exp2	- .001	- .001	- .001	- .001	- .001	- .001	- .001	- .001
Const	1.647	1.469	1.858	1.668	1.982	1.831	2.095	1.986
educ*D		- .036		- .038		- .026		- .028
exp*D		- .010		- .013		- .018		- .003
exp2*D		.000		.000		.000		.000
constant*D		.591		.644		.554		.437
R^2	.2694	.2853	.2630	.2852	.3100	.3283	.2498	.2642
SEE	.284	.281	.279	.275	.273	.270	.301	.298
F-Test		$F_{(4,2360)}$ = 14.92 (0.0000)		$F_{(4,2344)}$ = 18.20 (0.0000)		$F_{(4,2151)}$ = 14.63 (0.0000)		$F_{(4,2004)}$ = 9.80 (0.0000)

Sample:
male, fully employed (>25 hrs. a week), excluding the self-employed and those currently in VET. Moreover, those working in fishing, agriculture, nonprofit organizations, or in a family business have been excluded from the sample. The sample is restricted to those living in former West Germany.

Dependent variable:
the log of the gross hourly wage

Regressors:
educ   = yrs. of education
exp   = yrs. of work experience
exp2   = yrs. of work experience squared
const   = constant
SEE   = Standard error of the estimated regression errors
D   = dummy variable for union membership

As is often noted, unions may evince compressed wage structures for a number of reasons. One is that union leadership truly regards wage compression as an explicit goal in bargaining, alongside wages, employment levels and job security. It is possible to derive this objective indirectly as a by-product of risk aversion and imperfect credit markets available to workers when they are uncertain about future labor income (Agell and Lommerud 1992, Burda 1995). Another reason is that unions tend to organise industries with fairly standardised tasks and productivities, so pay compression spuriously reflects homogeneity in productivities of members. Another is that workers select into unions who are from the lower end of the productivity distribution, again spuriously compressing wages (Card 1998). While it is difficult if not impossible to attribute causality to unions without raising such issues, evidence from Sweden seems to indicate that the industrial variance of pay did indeed increase after the collapse of centralized bargaining there (Hibbs and Locking (1996), Iversen (2000), Davis and Henreksen (2000)).

An important issue concerns the impact of unions on gender pay differences. Unions have been important in the fight against sex discrimination, and the gender gap seems to be lower in countries in which union presence is strong. (Blau and Kahn 1996) At the same time it is not clear whether this is primarily 1) directly affected by unionization (because of explicit pro-women, antidiscrimination policy), 2) indirectly via implementation of pay scales and job ladders or 3) indirectly via an overall reduction of inequality.

Pay compression can occur both *within* as well as *between* enterprises (Freeman/Medoff 1984) and may even occur between industries and across other characteristics. Clearly, the extent to which this objective can be achieved depends on the locus of bargaining, which is discussed below. For example, national agreements which cap overall wage increases or provide for a fixed base increase are more likely to accomplish this end than firm-based agreements influenced by individual enterprise profits. It is a very robust empirical finding that centralisation of wage bargaining is conducive to pay compression (see e.g. Wallerstein, 1999).

5.1.3 Increasing Efficiency

It is a commonly-held (but not universal) view among labour economists that labour unions represent a source of allocative *inefficiency*, like just like a tax or a monopolist. This standard view immediately casts the efficiency impact of unions in a negative light as the source of "Harberger triangles" (deadweight losses). While unions are responsible for deadweight loss and resource misallocation, this captures only one aspect of their activity which is relevant. Even abstracting from equity and fairness considerations, which could on their own be sources of welfare improvements, it is imaginable that under certain conditions unions could *increase* efficiency. This once-heretical view was put forward by Freeman and Medoff (1984) and may be seen even more clearly in the European context. [67] In history, unions often emerged in response to perceived abuses of monopsony power, which is also a source of inefficiency. Standardisation of pay may not only help lift effort and productivity of workers if they feel secure and unexploited. In Germany and Scandinavian countries, standardisation of labour contract terms in a particular industry fixes the terms of employment in an industry, preventing "ruinous competition" for workers by firms and may avoid unnecessary mobility that may arise from firms chasing after the same workers.

An overarching and common theme in much of the discussion of how unions might improve efficiency is the existence of nonconvexities and fixed (transactions) costs. Usually framed in terms of communication and coordination costs, these one-off costs generally prevent individual workers from spontaneously organizing large lumpy restructuring efforts. Unions offer a practical way of reaching workers efficiently and directly communicating proposals for change. In addition, the exit-versus-voice dilemma can be understood in another particularly European sense. Exit – taken as voluntary mobility – also entails one-off costs. To the extent that aggregate mobility is necessary to induce aggregate change (for example, the reduction of employment in a declining industry), change will only come at the cost of the sum of all mobility decisions taken individually. If the best workers – who have the best outside chances – quit first, their loss may

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[67] Metcalf (1993) also shows that the relationship is theoretically ambiguous. Recently Agell (1999) has made this point in a more general context.

threaten the viability of the restructuring process. Further, to the extent that mobility decisions are costly (for example, changing residence), it might be preferable to "socialise" these costs, i.e. spread them over the group, meaning that the number of mobility decisions will be commensurately lower, but also that all members must pay their share.

An instructive (but not necessarily representative) example taken from the recent press in which both mechanisms seemed to have been operative is the case of Chantiers de l'Atlantique, the French shipyard in St.-Nazaire, the tradition-bound shipyard which in the late 1920s built "Le Normandie," the world's fastest passenger ship at the time.[68] The recent introduction of part-time and "temps souple" was hardly met with enthusiasm, but faced with the prospect of closure with the EU ban of shipbuilding subsidies in 2001, the unions convinced workers to accept a massive restructuring which abolished old-fashioned job assignment procedures and implemented "modern" shift and flexi-time work schedules. Such radical regime changes require a centralized intervention; if none is forthcoming, management will generally close such enterprises. While France is certainly not known for the cooperation of its unions, it is interesting to note that the Loi-Aubry – which reduces the French workweek from 39 to 35 hours – involves a large number of union concessions which were extracted in return for the workweek reduction. Most of these concessions involve workplace flexibility and organization issues (Askenazy 2000).

To be sure, it is difficult for an outside observer to know when efficiency is helped or when it is hindered by collective action. Unions can employ dilatory tactics to prevent painful restructuring solely in the interest of its members and often appear to do so; they can feign ignorance of the market situation or even deny it, attempting to push restructuring costs on the owners of capital. While examples of union-assisted restructuring abound – witness the heroic concessions of the German construction union IG Bau to save the construction company Holzmann AG from bankruptcy, including 5 hours per month of unpaid overtime[69] – there are

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[68] „France Reforms on the Sly" *International Herald Tribune* 29-30 April 2000, p.11.
[69] Interestingly, this effort was blocked not by the construction unions, whose *erga omnes* arrangement would have been challenged by Holzmann's workers wages concessions which put them below union contract levels, but rather by the employers association, which saw Holzmann exploiting their advantageous cost position to undercut competition.

also good examples of unions blocking reform -- of the shop-closing laws in Germany and Austria for example.

Exit versus Voice and Transactions Costs

At a deeper level one must return to the notion of "exit versus voice." While the economic theory behind these ideas were not formally elucidated by either Hirschman or Freeman/Medoff, the idea lends itself readily to at least two modern interpretations. The first is the existence of transactions costs at the level of the individual employment relationship, including renegotiation costs and fixed costs of starting a new employment relationship in general, but can be extended to the theory of real options and quitting as well.

Suppose workers observe or merely perceive that their productivity has risen and suppose further that this would justify a pay rise under competitive conditions. To obtain a pay increase, each worker must first approach his superior and make a convincing case. This step alone involves important psychic and possibly pecuniary costs. Now suppose the manager refuses to recognize the higher productivity as a rationale for a pay increase, even though objectifiable data supported the workers' case. The workers could in principle 1) all quit and search for a better job with a higher wage elsewhere, or 2) stay (albeit with a considerable loss of face) and continue to agitate for better pay, either alone or, more likely, as part of a larger group. The first option corresponds to "exit" while 2) corresponds to "voice." If costs involved with renegotiation are significant or if the creation of new employment matches always contain a fixed cost component, then there can be a rational incentive for staying on board rather than quitting. Quitting will help contribute to higher wages, but the quitter is unable to internalise the economic effect for himself. Collective action can bring about the same pay rise without the necessity of quitting. This incentive is greater, the higher the fixed costs are, but also the higher the probability that some impact may be had from within.

Reducing Turnover and Specific Investments

Similarly, the process of search (looking for economic activities under incomplete information) implies that "a bird in the hand is worth more than two in the bush." An argument based on real option value theory is applicable here. Quitting generally involves extinguishing an option of being employed by the current firm in the future, leaving a familiar if imperfect job situation for uncertain benefits; the new job may be more susceptible to the cycle than the current one, and may require extensive investment before an acceptable level of productivity has been attained. Staying on implies a chance at improving working conditions from within, while retaining the option of quitting should the situation not improve.

The reduction of turnover has additional benefits, one of which is an increase in on-the-job training. As long as unions reduce labour turn-over, long lasting work relationships favour investment in firm-specific human capital (Lynch 1994, Esping-Andersen and Regini 2000). In Britain panel data, Booth, Francesconi and Zoega (1999) find that union-covered workers receive significantly more training and are less likely to quit than their nonunion counterparts. They also find union covered workers who receive work-related training earn lower wages pre-training and higher wages post-training than do otherwise comparable non-union covered workers. While these findings may be peculiar to the UK, they provide support for the hypothesis that unions create more incentives for human capital investments.

Efficiency and the "Produktivitätspeitsche" or Rehn-Meidner (Swedish) Model

Another potential channel for efficiency is the relationship between wages and structural change. To the extent that positive productivity spillover effects are associated with new investment, unions may be internalizing them when they adjust wage structures to favour the formation of new vintages of capital and shortening expected operating lives of older ones (Agell, 1999). Implicitly this is done via a "single wage fits all" policy when capital and firms are heterogeneous. More generally, a common wage policy across firms tends to "punish" inefficient

companies and accelerate their demise while encouraging the expansion of more efficient firms.[70] In German trade union circles this effect is known as the *Produktivitätspeitsche* ("productivity whip") which allegedly drives firms to adopt state-of-the- art methods to reduce labour costs. The obvious limitation of this point however, is the alternative use of labour set free when the whip is cracked; if this labour goes into long term unemployment it is not at all clear that the economy as a whole is better off.

Efficiency and the indemnification for inflation / elimination of nominal rigidity

Over the past fifty years, the inflation rate – the rate at which the legal means of payment loses value – has fluctuated widely. Workers presumably care about the real value of their compensation, and want to be compensated for losses of purchasing power resulting from inflation. Yet, wages are set in nominal terms for some discrete period; if renegotiation has costs, it may be difficult to maintain real wage levels in the face of high and variable inflation. It is likely to be efficient for unions to act on behalf of the membership, especially as regards a common factor such as inflation which is uncontroversial. Defending real pay against fluctuations of inflation has frequently been seen as a central macroeconomic task of unions and unions tend to set terms for "compensation" for loss due to unanticipated increases in the price level.

Arguably, another potential efficiency aspect is indemnification for inflation. In economies where unions are weak or negotiate solely at the firm level, it may take labour markets some time to transmit a nominal price shock to nominal wages. This is because, as argued above, managers may exploit a local monopsony position by first refusing to acquiesce to demands of higher nominal wages, even if these are justified. Sufficient workers would need to quit the plant or firm in question before nominal wages begin to rise to compensate for inflation. With frequent bargaining, nominal wages are more likely to reflect inflationary tendencies rapidly.[71] Consistent

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[70] This argument has been made by Moene and Wallerstein (1993) and by Flassbeck and Scheremet (1995). It is valid, of course only as long as the least profitable companies are not able to lobby successfully for government subsidies to stave off their demise!

[71] The way unions accomplish macroeconomic goals varies widely. They may set national terms for a backward-looking inflation "compensation" based on the past, or formulate a forward-looking national

with this hypothesis are Bruno and Sachs's (1985) estimates of the responsiveness of nominal wages to consumer prices for a number of OECD countries, among which the lowest were in the US and Canada and the highest in Germany and the United Kingdom (Table 11.8, p.239). Contract periods are longer in the US and Canada than in Germany and the UK. Similar evidence can be found in Alogoskoufis and Manning (1988) and Layard Nickell and Jackman (1991).

5.1.4. Unions as a provider of services

As their ideological appeal wanes and global sociological environment changes over time, unions have become increasingly intent on attracting and retaining members by offering a range of tangible benefits of membership. This "service-provider" view of unions (as in Hyman's first model presented in section 2) is more and more prevalent as structural change accelerates and uncertainty increases. The range of services offered is considerable: from retirement counselling and tax advising (outsourcing of government functions or "patronato" in Italy), training and retraining policies (the Catholic CISL in Italy and the CFGT in France have dabbled in this), worker education, to legal advice. In Germany, unions are actively involved in annual negotiations concerning the number of training positions industry will offer. As in the US, some unions have offered financial services, issuing credit cards, usually through their closely-held banks. In Sweden, it has been common for industrial unions to negotiate favourable terms for private insurance with insurance companies for their members.

Unions frequently also provide another important service, namely that of political advocacy. This is the union function captured in Hyman's fourth model, as discussed in section 2. Unions champion causes of the political left, and are actively engaged in the political lobbying of legislatures and decisionmakers. Besides this, union leaders – especially in continental Europe and Scandivavia – are seen as champions of "social principles" and "solidarity," standing vigilant to guard social "acquis" against incursions, especially by conservative governments.[72]

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inflation expectation (often employing resources at the central organization). In any case the traditional formula of "inflation plus average expected productivity growth" continues to guide union policymaking.

[72] The English language does not capture the ideological flavor encountered in continental languages: in France "acquis sociales" and the German "soziale Errungenschaften" transmit much more directly the

5.2   How do they do it?

It is one thing to describe what one wants, another to be able to achieve those goals. In Europe, the institutional constraints which determine what can be achieved varies widely across countries. In this section, we study mechanisms which increase union influence beyond membership. Questions arise frequently: How do unions wield influence beyond their numbers? What mechanisms lead to *excess coverage* – that the fraction of workers covered by union contracts deviates significantly from membership? A central conclusion is that this influence derives from national labour market institutions. Finally, the open question remains: what determines the institutions themselves? These are the issues to which we now turn.

5.2.1   Locus of Influence and the Structure of Collective Bargaining

Almost trivially, the locus of influence is central to understanding the presence of unions. The level at which unions can be taken seriously in presenting their demands determines their influence. Using Marshall-Hicks arguments, it will also determine the elasticity of demand for labour, a central parameter determining its impact on wages and other aspects of the workplace. Another way to put it is to say that the extent to which wage bargaining is coordinated between different unions and employers will be of crucial importance for wage outcomes, as will be the theme of section 6.

One important aspect of coordination is the degree of formal centralisation of bargaining, i.e., the level at which bargaining actually takes place. The level of bargaining is not only relevant for coverage but also for coordination. As a rule, the authority within unions or employers' associations is closely tied to the level at which collective agreements are usually negotiated (Clegg, 1976; Sisson, 1987). Under single-employer bargaining each employer (firm) negotiates independently; under multi-employer bargaining employers combine in employers' associations

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notion that these benefits represent fruits of a political or social struggle between workers and capital. Not surprisingly, this ideological aspect often serves as a rallying point for opponents to reform.

with a mandate to conduct negotiations and reach binding decisions for an entire industry, region, or country. In Western Europe - unlike Japan and the United States - multi-employer bargaining has since the 1930s recession become the dominant type of wage setting. Currently, the major exception in Western Europe is Britain, where multi-employer bargaining has disappeared in nearly all sectors. France is the other major country where company or enterprise bargaining (over wages and working hours) is of greater importance than sectoral or national bargaining, in part because French law (since the early 1980s) requires companies to bargain annually. In most countries – Denmark, Sweden, Germany, Austria, Switzerland, the Netherlands, and Italy (since 1993) - sectoral bargaining is dominant; in Spain, Portugal and France more intermittently so. In Norway, Finland, Ireland, and Portugal central agreements incorporate wage guidelines; in Austria the peak associations are able to influence the timing of negotiations; in the Netherlands targets are set through co-ordination within and between the peak associations. In Belgium weak nation-wide co-ordination through peak associations is compensated, or frustrated, by recurrent state intervention.

Decentralisation of wage setting practices, with more variation within sectors, can be observed in many European countries and is mainly driven by employers in the exposed sector of the economy who seek more room of manoeuvre in response to international competition and technological change. But the collapse of industry bargaining and its replacement by company or individual bargaining is rare. More usual is the introduction of an additional level of bargaining, usually in the firm, articulated within national or - more common - industry level bargaining.

The advantage of measures of formal centralisation is that they are fairly objective. The disadvantage is that they may fail to capture informal or tacit cooperation between unions and employers. We shall label indicators incorporating informal and attitudinal aspects, including the behaviour and attitudes of employers, as cooperation measures (see also section 6). By necessity, they involve more of subjective judgements and are more difficult to compare over time and across nations. The various measures and dimension of bargaining coordination are highly correlated (Clarke, 1997; Iversen, 1999). The major differences relate to a small number of countries. In centralisation rankings, Japan and Switzerland are usually classified as decentralised because bargaining takes place at the firm level. Cooperation indicators instead tend to rank them

as highly coordinated because of informal coordination, particularly among employers. For similar reasons, the German system, based on intermediary (sectoral bargaining) comes out as more coordinated with cooperation than with centralisation measures, at least in the 1970s and 1980s.

Following the methodology of Iversen (1996) and Visser (1984, 1990), one can calculate a combined centralisation and co-ordination index, taking into account a multi-level bargaining system (with the possibility that bargaining takes place at the central, industry, and company level). The combined centralisation/coordination index in Table 5.2 includes information about the capacities of the peak associations and the major sectoral unions. The weights are based on the role and power of the peak associations and of major unions in the actual negotiation and monitoring of wages: Is there a central agreement? Is the agreement enforceable? Do peak associations monopolise strike and wage decisions? What is the principal level of lower-level wage bargaining (industry or enterprise, or both)? Is lower level bargaining bound by rules controlled at higher level and is control effective. Do unions have the strike funds and staff to control and monitor the wage determination process (Visser, 1990)? The index also takes into account if all peak associations are working together (as in Italy or the Netherlands), or only one (Portugal, Norway, Ireland) or two (Spain) associations do enter into central negotiations with employers and governments. The associational monopolies (or confederal shares in total membership) of these peak associations are then used as weights. For the establishment of the co-ordinating capacities at the level of sectors we have used, like Iversen, a measure of the number and size inequality of the unions in the dominant confederation (dominant in the sense of leading the negotiations). This yields the outcomes shown in Table 5.2, columns 4 and 5, showing Austria as the most centralised and Britain as the least centralised country, in terms of how trade unions influence wage bargaining. Interesting are the low values - rather different from the past - for both Denmark and Sweden, and the comparatively high values for Ireland and Italy. Viewed from the perspective of how unions influence wages, problematic combinations are those with a relatively high union density rate and low capacity for co-ordination - a combination that now obtains in Sweden, Denmark, and in Germany in manufacturing industry and public services.

Table 5.2. Bargaining centralisation/coordination in collective bargaining and Social Pacts

Countries	Index Iversen (1973-95) index / rank		Index Visser (1993-97) index / rank		Trend	Stable Pacts	Unstable or Incomplete Pacts
	1	2	3	4	5	6	7
Sweden	.485	2	.348	6/7	decentralisation		1999?
Finland	.445	3	.604	3	centralisation	1991, 1995, 1998	
Denmark	.467	4	.274	10	decentralisation	1987?	
Norway	.569	1	.678	2	centralisation	1990, 1992, 1998	
Belgium	.338	8	.314	8/9	unchanged		1993, 1996
Austria	.437	5	.785	1	unchanged *	1995	
Germany	.353	7	.314	8/9	unchanged		1996, 1998
Switzerland	.265	9	.199	12	decentralisation		
Netherlands	.392	6	.433	5	unchanged	1982, 1993, 1997	
Ireland	..		.542	4	centralisation	1987, 1990, 1994, 1997	
Great Britain	.182	11	.100	15	decentralisation		
Italy	.185	10	.347	6/7	multilevel	1992, 1993, 1996	1999
France	.114	12	.124	14	unchanged		
Spain	..		.260	11	?	1997	1994
Portugal	..		.128	13	?		1990, 1996
Greece	..				?		

centralisation/co-ordination: index of levels of wage bargaining (economy, industry, company), co-ordination by and authority of main (union) confederation(s) at the central and of main unions at the industry level, weighted by their membership shares (see text).
Source: Iversen (1999: Table 3.1) for the combined index of centralization and coordination in pay bargaining (columns 2 and 3). Column (4) and (5) apply the same methodology but relate to different years (mid-1990s). Column (6) shows the main trends. On one country, Austria, my interpretation differs from that of Iversen. I believe that the Austrian system was much more centralised in the past, outranking Sweden if not Norway in this regard (see Visser, 1990: Table The information in Columns 6 and 7 is derived from Hassel, 1999, Table 1, with some changes for the Netherlands, Norway and Spain.

From Table 5.2, it emerges that there are just as many countries where national coordination, above the level of sectors, has weakened as there are countries where nation-wide coordination has strengthened during the 1990s (possibly after a period of weakening in the 1980s).

One form of coordination, which has been quite important in recent years, are so-called

"social pacts", establishing norms of low nominal wage growth. Such pacts came about in several EU countries that in the 1980s and the 1990s opted for non-accommodating monetary regimes by maintaining fixed exchange rates within the European Exchange Rate Mechanism (ERM) and later aspired membership of EMU in the first round in 1999. A probable explanation is that strong incentives for such coordination were created when it became apparent that reductions of the high unemployment necessitated downward real wage adjustments, and that these in the prevailing monetary regime could only be accomplished through money wage restraint. According to Streeck (1998b) the convergence criteria of Maastricht and the subsequent decisions on implementation of the monetary union have moreover inspired 'more or less explicit alliances between the government, business and labour aimed at "making the country fit for Monetary Union",'. National pride, or 'the almost irresistible economic and political imperative for countries not to be excluded', proved a strong enough mechanism to overcome class conflict.

Examples of social pacts, or social contracts, in one form or another are found in Austria, the Netherlands, Norway, Denmark, Finland, Ireland, Italy, and—in a less stable or complete form—in Spain and Portugal (see Table 5.2) (Fajertag and Pochet, 2000; Hassel, 1999). In Belgium (in 1993 and again in 1995-96) and in Germany (1995-96) attempts to negotiate a National Pact for Employment have failed, but new proposals are on the agenda (for the most recent overview, see Fajertag and Pochet, 2000). The possibility of a national employment pact does not appear realistic in France or Britain, and sits uneasy with current decentralisation trends in Denmark and Sweden, although in both countries elements of coordination are retained through the system of conflict settlement (Denmark) or the main union confederation (Sweden).

It cannot be stressed enough that, in substance, the social pacts of the 1990s differ from the social contracts and incomes policies of the 1970s (Hassel 1999; Pochet 1998; Regini, 1997). The incomes policies and social contracts of the 1970s were attempts to buy union support for anti-inflationary wage setting in a context of Keynesian demand management, so as to allow governments and central banks to pursue expansionary fiscal and soft monetary policies, needed to defend high (public) employment levels and finance a still expanding welfare state. With the political commitment to full employment, trade unions held an important power resource in this process of political exchange insofar they could defeat the government's inflation target or create

political and social unrest (Goldthorpe and Hirsch, 1976; Pizzorno, 1978).

Unions, weakened by unemployment and product market liberalisation, come from a much weaker position to the bargaining tables of the 1990s. Typically, current social pacts in Europe have had the aim of guaranteeing membership in the EMU, hence, an inflation-proof and productivity-oriented wage policy. This crucial issue is often part of a package in which other elements of welfare state reform are put on the bargaining table: the reduction of ancillary wage costs through a change in the financing of social security with less negative effects on employment; pension reform and in general the adjustment of social security on new patterns of work and life; and the negotiation of flexible labour time arrangements.

5.2.2. The Role of the Legal Framework and *de jure* influence

The existence of unions presupposes the willingness of management or employer associations to negotiate with them. This is by no means a given in the United States, Canada, or the United Kingdom, but is more likely in continental Europe. This is likely to flow from legal as well as practical considerations, and the *legal framework* for labour relations is a crucial determinant of how unions exert influence on their economic environment. Clearly, the right of unions to speak collectively for workers including nonmembers represents an incursion on the freedom to contract, but most OECD countries have been willing to permit considerable incursions into this right. Enabling legislation and the legal framework will have large effects on the ability of unions to perform their functions. The evidence supporting this assertion is the radical restriction of union power forced by Thatcher in the UK in the 1980s (Bean and Symons 1989, Minford 1999); the introduction of open elections, the abolition of the closed shop and the elimination of legal immunity for union leaders had a significant impact on strike days and especially organization successes in the UK since. In Italy, recent reforms of union workplace representation rules seem to have made union power more responsive to a larger clientele.[73]

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[73] To make their system more accountable, the union workplace representation system was reformed (based on elections, with some extra seats assuring the unions who sign the contract a majority). This system appears to have worked rather well and was after lengthy negotiations reaffirmed in 1998.

In addition to direct organization efforts, a number of mechanisms can gain presence for a union. First, legal rules can enhance their clout. ***Closed shop rules*** can prescribe union membership as a necessary condition for work in a profession or sector, either before an employment contract is concluded (pre-entry) or after the fact (post-entry). These rules are considered anachronistic and have been largely eliminated in Europe, having found last refuge in the United Kingdom in the late 1970s. In the United States, interstate competition in the 1970s emanating from the Southern States (so-called "right to work" laws) was the death knell for the closed shop in US "rust-belt" industrial states. A similar fate may await European restrictions.

A more sophisticated means of extending presence is the so-called extension or ***erga omnes*** mechanisms. These ensure that collectively bargained wages act as binding minima for all contracts in the relevant sector. *Erga omnes* can be achieved in a number of ways. Legal extension of national or regional agreements by act of the labour minister (Germany), parliament (Belgium), decree (France), or court ruling on what is a "fair wage" (Italy). In Germany, the *Allgemeinverbindlichkeitserklärung*, a ruling in which the Federal or Land labour minister declares provisions of a labour contract to be legally binding for all employed in the sector, is more rarely used than often thought, allegedly out of respect for rights of management and labour representatives to bargain and contract over pay without state interference (*Tarifautonomie*), but the threat serves as an important deterrent to bad faith practices. Mandatory extension exists in Finland, Austria, Switzerland, Belgium, the Netherlands, France Greece Spain Portugal and Ireland; it is regularly used in Austria, Belgium, France and Portugal.

In Ireland the parties signing a collective agreement may apply to the Labour Court (an arbitration board, really) to have the agreement registered, whereupon it becomes legally binding upon the signatory parties and on other employers and employees 'of the class, type or group to which it is expressed to apply' (EIRR 254: 28). Interestingly, in Sweden, Denmark and Norway organisations of employers and unions do not benefit from this form of public expectation.

A third and related mechanism which levers up union influence, which is probably most important in France but certainly played a role in recent German policy on non-German EU construction workers, is influence on institutional arrangements. For example, in France the nationwide minimum wage SMIC (*Salaire Minimum Interpersonel de Croissance*) is determined

by a commission with a union representation. In Italy, a source of heated debate has been the introduction of competition among unions for rights of worker representation in the works councils. A recent law for public sector unions has introduced a threshold of 5% at national level to gain eligibility to stand for council elections.

Fourth, there is the threat of collective action. This may range from subtle aspects, which in Sweden might be the voluntarily and routine extension by employers of contract terms to the legal framework governing strikes. The right to strike, while guaranteed in the Social Charter, is heavily circumscribed in individual countries, as is the right to employer retaliation (lockout). In Germany and Scandinavia, for example, strikes are not allowed during the agreed period of industrial peace, and secondary picketing has been increasingly circumscribed by law: though not in the case of Sweden. The right to unemployment benefits to workers at firms affected collaterally by strikes has been tightened in recent decades. In Sweden, there is no right to unemployment benefits during industrial conflicts. A general trend is to regard the decision to strike as one which should be reached democratically and thus impose some strike ballot. Naturally, the organisational strength of the union will determine its ability to sustain industrial action. The right of unions to recognition, also a provision of the Social Charter, has a notoriously elastic definition, as the past twenty years of UK experience have shown. The experience of unions in Eastern Germany show clearly that this is no longer simply an Anglo-American phenomenon (see discussion below).

The most important and pervasive means of increasing presence beyond membership levels, especially in Germany, Austria and the Scandinavian economies - but remarkably absent from the Anglo-Saxon countries - is simply the extension provided by the contracting mechanism itself. Large and powerful unions derive their influence from the existence of a bargaining counterpart, either a multinational firm or a powerful employer association, which negotiates on behalf of its due-paying member firms. In this way, a large share of small and medium sized firms which would fare badly vis-a-vis a large industrial union can avoid the fixed costs entailed in annual wage negotiations.[74] The contractual wage as well as the framework agreement serves as a

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[74] In recent decades collective bargaining in Europe has taken place primarily on an annual basis, but there is also some use of multiyear (usually biennial) contracts in Belgium, Italy, Netherlands and

benchmark, and the agreement is self-enforcing, since a firm paying below contract wages would be vulnerable to action by both workers and competitor firms in the industry.[75]

Table 5.3 shows that union membership in OECD countries often but not always has little to do with coverage (defined as the fraction of contracts in which wages are determined in collective bargaining.) At the same time, it is important to note a number of regularities in these data. First, the countries can be divided into three well-defined groups: those with low membership and low coverage (US, Canada, New Zealand, Japan, Switzerland and perhaps the UK), those with relatively high membership and high coverage rates (Denmark, Sweden, Finland, Norway) and those countries with "excess coverage" of 25 percentage points or more (Australia, Austria, Belgium, France, Germany, Italy, the Netherlands, Portugal, and Spain). Focusing on European economies in this "excess coverage group" it is interesting to note that besides Portugal (71%) Spain (78%), and the Netherlands (81%) the rest exhibit very high coverage of 90% and above. It is also in these countries that the excess coverage is the highest.

What is the connection between excess coverage and economic performance? It would be beyond the scope of this study to investigate this issue directly, but one answer is already available from the literature. To the extent that *centralization* of wage bargaining and coverage are correlated, it is likely that excess coverage is one way of increasing centralization beyond modest membership levels. It is known however, from the work of Calmfors/Driffill (1988) and others that this relationship may not be monotonic. To the extent that excess coverage only achieves intermediate levels of centralization, it will lead to less desirable macroeconomic outcomes.

Sweden. In Germany multiyear contracts are concluded on nonwage issues. Central (nation-wide) agreements in Ireland are usually for four years.

[75] This may explain why this system is most successful in countries in which collective bargaining takes place on industrial lines, and explains why in recent years collective bargaining in Italy has been conducted along industrial lines by three unions (all with different religious and political affiliation) that act jointly as a single union. In a few cases, national contracts have been signed by only two of the three sectoral unions (typically the Christian-democratic CISL and the socialist UIL).

Table 5.3.: Membership and Coverage in Europe, 1994 (%)

	Membership	Coverage	"Excess Coverage"
Australia	35	80	45
Austria	42	98	56
Belgium	54	90	36
Canada	38	36	-2
Denmark	76	69	-7
Finland	81	95	14
France	9	95	86
Germany	29	92	63
Italy	39	82	43
Japan	24	21	-3
Netherlands	26	81	55
New Zealand	30	31	1
Norway	58	74	16
Portugal	32	71	39
Spain	19	78	69
Sweden	91	89	-3
Switzerland	27	50	23
United Kingdom	34	47	13
US	16	18	2

Source: OECD *Employment Outlook* 1997

5.2.3 Works councils and alternative channels of institutional influence

The institution of works councils (*comité d'entreprise*, *Betriebsrat*, etc.) represent an innovative means of solving the exit-versus-voice problem without explicitly endorsing union organisations or aiding organization efforts. In general, works councils have a responsibility in large enterprise as conduits of information taken by management as well as a source of consultative feedback on issues regarding workplace organization, environmental quality, and general workforce morale. In different European countries, works councils are accompanied by union influence to varying degrees *de facto*, although not necessarily *de jure.* For example, German works councils are prohibited from negotiating over wages and benefits which are normally the subject of collective bargaining. In contrast, in France works councils serve as one

of the most important mechanisms by which poor union membership rates can be "multiplied up" into presence and influence.

Most recently, works councils have moved into the policy discussion as *European Works Councils* (EWC) have sought to establish legitimacy in the European Union. The relevant regulation of *European Works Councils* was adopted in 1994 (directive (94/45/EC), applying to some 1,200 multinational firms, located in one of the 18 member states of the European Economic Area (EU, plus Norway, Malta and Liechtenstein) with at least 1,000 employees total and a minimum of 150 employees in at least two countries. Although the United Kingdom was not included at the outset, since the Treaty of Amsterdam, in 1997, it has been; the EWC directive also applies to British transnationals operating in the European Economic Area outside the UK and several British firms also have voluntarily included their domestic workers in their EWC. In 1998 some 600 EWC's appeared to be operating.

At first glance, the EU directive governing EWC appears to contain little in the way of substance. Voluntary management-worker agreements on labor-management consultation procedures concluded before the September 1996 deadline could replace legislative requirements, and the modest information and consultation rights provided for do not include co-decision rights as in German or Dutch works councils. Nevertheless, this institution is of particular interest since, as noted elsewhere in this report, pan-European cooperation among unions is likely to be difficult and perhaps impossible in the short to medium run. By the fact that they are standardized and _nstitutionalised networks of employees across borders, the EWC represent a new potential coordination mechanism and in transnational firms could operate as a Trojan Horse for pan-European collective bargaining. This important issue will be raised again in Section 7.[76]

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[76] A first contract-like agreement has been struck between the unions and the French food-giant Danone. Negotiating the EWC's had, moreover, the effect that it gave a boost to the 14 or so sectoral European (cross.border operating) trade unions (affiliates of the European Trade Union Confederation) in giving them a new role in assisting and advising these councils. This was helped by heavy finanical support from the European Commission and Parliament (Schulten, 1996).

5.2.4   Social pacts and the role of unions in macroeconomic policymaking

While much has been written on unions in the United States, the data presented at the beginning of the report make it clear that a "typical" European labour union looks and feels different from its North American counterpart. These distinctions are crucial for understanding the menu of options which are available to unions to achieve their goals, narrowly or broadly defined. One of the most outstanding differences between US and European unions is their own perceived role in national economic policymaking. Especially on the continent, but sometimes also in the UK, unions are asked for input on important policy questions and participate in numerous policymaking fora. Unions may help determine the minimum wage (France), administer the unemployment benefits system (Belgium, Finland, Denmark and Sweden) and health and pensions (France and Germany). In Germany, Austria, and Denmark, the reach of organised labour extends to the supervisory boards of large companies and boards of trustees of nonprofit institutions.

Unions have played an even more central role in macroeconomic policy in some European countries by exposing their wage and other demands to public discussion, either with or without the presence of the government, at the negotiating table. In doing so, they have recognized the macroeconomic effects their nominal wage demands can have on the overall conditions of aggregate supply and demand. In one model of "tripartite agreements" which was popular during the 1970s, the participation of government is active, ranging from explicit proposals to the dissemination of information. More often in the recent period, social pacts have been negotiated by labour and management under the watchful influence of the state, which may sometimes involve cajoling or even threats. This was discussed in more detail in section 5.2.1. These highly public events focus public attention on the necessity of macroeconomic adjustment, to coordinate expectations, and help reach a consensus on the proper contribution of the social partners.

Perhaps the most outstanding example of a national consensus between unions and employers in order to reach macroeconomic objectives has been the Wassenaar Consensus in the

Netherlands forged in 1982.[77] This agreement has received a great deal of attention for achieving real wage moderation in public and private sectors, although the exact mechanism remains the subject of some dispute.[78] In any case, the Wassenaar deal resulted in nominal wage moderation on the part of private sector unions coupled with government-initiated labour tax cuts (mostly social security contributions) and spending reductions (primarily wage moderation on the part of public sector employees!). Indeed, since the mid-1980s, real wages in Holland have indeed been the most moderate in Europe, even matching the US experience, while a number of tax reforms have mitigated the effect on family income and enhanced the attractiveness of part-time work.

Social pacts involving also governments have in recent years been concluded in Finland (see discussion in Section 6), Portugal and Ireland. Most of these have had an external justification, namely to prepare EU countries to prepare the way for membership in the European Monetary Union. Another example for which the jury is still out is Germany's "Bündnis für Arbeit" (Alliance for Jobs), which was initiated by Chancellor's Schröder SPD government but has been less than tripartite, since government's role was limited. Yet it is being credited with the remarkable pay moderation shown in the 2000 pay round, possibly with the exception of the public sector, despite high initial public pay demands.

5.3 The Future of Excess Coverage: Dangers on the Horizon

Secular declines in membership pose risks for the credibility of the European labour movement. As membership dwindles, so does union influence on governments, as the relevant voting block becomes less important for politicians and administrative extension of wage agreements loses public support. This effect is likely to be even more important if contracts are

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[77] The Wassenaar agreement of 1982 has since been followed by successor agreements "New Course" in 1993, and "Agenda 2000" in 1997). Noteworthy is the fact that one key Dutch union leader at the time, Kok, later became Prime Minister, and thus bore responsibility for staying the tough course of the Wassenaar Accord.

[78] See Jelle (1998) and Nickell and van Ours (2000). Technically the agreement involved the central organizations of employers and unions, and was reached in the Foundation of Labour (a private, union-employer organisation, recognized by the government). In these agreements (especially in 1982 and 1993) the government ostensibly was present behind the scenes, threatening intervention of wage controls or other norms.

already decentralised. The rise of the service sector, smaller firms and less standardized workplaces make unionization difficult, and decentralization is one reaction which allows flexible adaptation to the new environment. Active management of the process seems inevitable, as German "opening clauses" have sought to achieve. The risk of divergence between membership and coverage is that the legitimacy of collective agreements is more and more frequently called into question. The advanced decay of union membership observed in France is unlikely to be a desirable state of affairs for union leaders, as it erodes precious political capital.[79]

The empirical evidence is rather clear that the decline in union membership observed in Europe has occurred through erosion and as a result of frontal assaults by capital or management. Machin (1999) has shown convincingly that the massive de-unionisation in observed Britain is due primarily to new, nonunion establishments, rather than de-recognition in existing plants. He further shows that this trend is no different in services than in manufacturing. The failure of unions to gain legitimacy in new establishments has no doubt promoted outsourcing and greenfield investments. Surprisingly, Kohaut and Schnabel (1999) come to a similar conclusion based on the new German firm panel. They find not only that coverage rates have declined by several percentage points since 1995, but that new firms are more likely to pay wages determined in establishment level (rather than industry) wage agreements.

The recent case of Eastern Germany bears witness to the vulnerability of *erga omnes* collective bargaining arrangements in times of economic stress. As a result of severe structural change and unemployment which followed unification, Eastern Germany saw its unions lose more than half their members in the span of a few years, in itself strong evidence that employment is a primary determinant of membership. During this period a uniform wage policy chosen by western unionists and employers was imposed on the eastern regions; the motives of those decisionmakers did not seem to coincide with high employment in the capital-poor eastern regions. Not only were unions weakened by employment losses following unification (Table

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[79] Following the massive strikes of 1995 which killed the Juppé reforms, there were some attempts by French employers federations and some less radical French unions to engineer a central agreement, with the government acting as intermediator. This effort failed when the new Jospin government in 1998 pushed through its Loi Abry (35 hour workweek law) which seems to have tempered the willingness of French employers to engage in further social dialogue.

5.4.), but employers increasingly resigned from employer associations or even explicitly disregarded wage agreements and attempted to extract concessions from workers via the works councils (Table 5.5).[80] Some would even argue that unification has accelerated a trend towards decentralised plant level agreements in Germany; calls in both East and West for more deviations from blanket, industry-wide wage agreements have been followed by increasing use of exit clauses by firms in distress (Schnabel 1999, Kohaut and Schnabel 1999). According to Schnabel (1999) the number of companies with company level agreements has risen in Western Germany from 2100 in 1990 to 3300 in 1997; in Eastern Germany the rise over the same period was from 600 to 1700. Nevertheless Kohaut and Bellman (1997) show that 72% of all employees in 1995 were still covered by industry-wide, collective agreements. The sharp gap between East and West may prove problematic however in years to come.

Table 5.4. East German Membership in DGB (Deutscher Gewerkschaftsbund): 1991-8

	Yearend Union Membership (000s)			**As percent of total employment***		
	1991	*1995*	*1998*	*1991*	*1995*	*1997*
Berlin-Brandenburg	1085	755	608	38.0	36.6	32.3
Sachsen	1342	677	510	59.0	42.0	34.6
Sachsen-Anhalt	727	377	306	52.8	41.4	37.0
Thüringen	613	327	244	50.2	38.5	32.1
Mecklenburg-Vorpommern	439	225	227	48.3	36.7	31.1
All new states	4158	2360	1841	50.6[a)]	39.0	33.4
Memorandum:						
West Germany	7643	6994	6470	32.3	31.4	31.8

*Dependent-status employment.
Source: DGB, Statistisches Bundesamt

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[80] It is technically illegal under illegal under German law for works councils to engage in negotiations over wages or other issues normally the domain of the social partners.

Table 5.5: Evolution of Membership in Employers' Associations and Nonunion Wages in Eastern Germany

	1993	*1995*	*1998*
Share of all firms that are members of an employers' association (%)	36	27	21
Share of all employees employed by members of employers' associations (%)	76	64	45
Share of firms which generally pay below the union wage in their sector and region (%)	35	33	41
Share of employees who are paid below union wage (%)	12	16	28

Source: DIW (1999)

5.4   Conclusions

Unions in Europe provide a much richer answer to the question "What do unions do?" than their North American counterparts. Besides negotiating pay and fringe benefits, European unions have an unmistakable effect on the wage distribution, can influence efficiency in a number of positive (as well as negative) ways, and provide a number of services to their members, including political advocacy. As will be clear in the next section, they can have significant influence on macroeconomic outcomes and often claim for themselves a role in macro policymaking. In this respect, unions play a central part in European economic life and it seems premature to write them off on the basis of statistical dips in membership rolls.

In our report we stress the notion of union presence. Union presence has diverged increasingly from membership in a number of very important European economies. Notably, these economies have performed rather poorly in comparison to those in which membership and coverage are close to each other, regardless of whether they are low are high. Union presence or excess coverage must be maintained by *erga omnes* institutions which are being run by fewer and fewer individuals, threatening the credibility and democratic legitimacy of unions in these economies.

The most striking finding on the subject of union presence in Europe is that despite falling membership, there is little by way of a clearly identifiable trend over the past two decades in qualitative indicators of the locus of bargaining and the degree of influence. Some authors (e.g. Elmeskov *et al.,* 1998) have pointed to a tendency towards decentralisation of formal bargaining levels, but the picture is certainly much less clear when measures of bargaining coordination that also take into account of more informal cooperation, including concertation and social pacts, are taken into account.

"This section of the report has addressed the question of how unions affect efficiency and distributional outcomes, and has indicated that union influence is shaped both by the level of bargaining and by the legal framework. The section has also discussed the role of social pacts and the relationships between bargaining and related systems based on works councils. The next section of the Report focuses on the relationships between bargaining structure and macroeconomic performance and, in particular, analyses how bargained wages, unemployment and bargaining structures themselves are likely to be affected by European monetary unification."

6. Bargaining Structure and Macroeconomic Performance

One of the most important aspects of union presence concerns the locus of influence and the extent of coordination of wage bargaining, as was discussed in section 5. Bargaining coordination can occur in several ways: formal delegation of bargaining to more centralised union levels, formal coordination between different bargaining units, pattern bargaining where aggregate wage developments are determined by a key sector, informal norms for wage setting, social pacts between labour market organisations and governments, mediation procedures or other government interventions. This section looks more closely on how the extent of coordination of wage setting influences macroeconomic performance. The focus is on the aggregate wage level and unemployment. As emphasised in the earlier sections, this is only one of many channels through which bargaining structure is likely to affect the economy. The reasons for devoting a whole section to the relationship between bargaining structure and unemployment lie in the importance attached to the unemployment problem in the European policy debate and in the fact that the issue of centralised versus decentralised bargaining has been much discussed in this context. This makes it natural to survey existing knowledge. The survey is used as a basis for discussing how the EMU is likely to affect wage bargaining.

The bargaining structure may influence macroeconomic outcomes either *directly* or because it *interacts* with other labour market institutions or macroeconomic shocks. We emphasise both these aspects.

Section 6.1 surveys the "conventional wisdom" on how the bargaining structure may have a direct influence on wages and employment. Section 6.2 discusses the interaction between central banks and wage setters, whereas section 6.3 looks at the interaction between taxes and wages. Section 6.4 focuses on the interaction between bargaining structure and macroeconomic shocks in general, whereas section 6.5 concentrates on nominal wage flexibility in particular. Section 6.6 analyses how wages in collective agreements are likely to respond to European monetary unification. Section 6.7 sums up.

6.1. The conventional wisdom

The existing literature has emphasised mainly three mechanisms through which the bargaining structure may affect real wage levels and macroeconomic performance: (1) internalisation of externalities; (2) market power; and (3) coordination of expectations.

6.1.1 Internalisation of external effects

Higher wages for one group may have negative effects for other groups. Wage decisions under uncoordinated bargaining will not take these negative externalities into account, but under coordination they can be internalised. This works in the direction of stronger incentives for real wage restraint, and thus higher employment, under coordinated than under uncoordinated bargaining.

A number of such negative externalities have been discussed in the literature (Calmfors, 1993a; Flanagan, 1999). The most obvious one is a *consumer price level externality*. A wage rise in part of the economy tends to raise the price of the consumption basket and thus to reduce the purchasing power of wages in the rest of the economy. A related externality is an *aggregate-demand* one: to the extent that money wage increases in part of the economy raise the aggregate price level, real aggregate demand falls, which in turn reduces employment and profits elsewhere (Alesina & Perotti, 1997; Soskice & Iversen, 2000). A third example is an *input price externality*: because various sectors are interlinked through the input-output system, a wage rise in a sector that produces inputs for other sectors affects them adversely.

A fourth externality is a *fiscal* one. Wage increases in one part of the economy, which raise unemployment and reduce output there, mean higher costs for unemployment benefits and a smaller tax base. As a consequence, tax rates have to increase. This reduces real disposable incomes throughout the economy. There may also exist a direct *unemployment externality*: when wage rises in one part of the economy causes unemployment there, there are fewer alternative employment opportunities for everyone.

Finally, wage increases in one firm may in themselves have direct negative effects on other firms. There may be *envy* or *jealousy effects*, because employees value a given wage less when the wages of others go up. In addition, if relative wages are important for the *productive efficiency* of employees, wage increases in one part of the economy harm productivity and profits elsewhere.

6.1.2 Market power

If internalisation of negative externalities were all that there was to it, more coordination would always lead to lower wages and higher employment. But there is also another important aspect: the degree of *market power*. The argument then is that various categories of employees are substitutes. This will be the case for employees in different firms which produce goods that are substitutes. If wages are raised in a firm, labour demand will fall by more if wages are raised only there than if at the same time they are raised in competing firms. Coordinated wage bargaining will in this way give wage setters more market power and increase wage pressure.[81]

The net effect of more coordination is thus the outcome of two conflicting forces: more internalisation of negative externalities, which tends to reduce wage pressure, and more market power, which tends to increase wage pressure. This could lead to a *hump-shaped relationship* between the degree of coordination and the real wage, with intermediate bargaining at the industry level producing higher real wages than either decentralised bargaining at the firm level or centralised multi-sector bargaining (Calmfors & Driffill, 1988).

To understand the result, the distinction between the *real product wage* (the money wage deflated by the product price) and the *real consumption wage* (the money wage deflated by the consumer price index) is crucial. When contemplating a wage rise, a union will trade off the welfare gain of a higher real consumption wage against the welfare loss of lower employment that follows when the real product wage increases. Different bargaining structures imply different terms of trade between rises in real consumption and real product wages (Moene & Wallerstein,

1993). A simultaneous wage rise in all firms in an industry will result in a substantial rise of the output price. The consumer price index will also increase, but by much less than the output price of the sector. So with industry level bargaining, a given nominal wage increase will be seen to result in a much larger increase in the real consumption wage than in the real product wage. The consequence is a weak incentive for real wage moderation, as a large gain in the purchasing power of the wage can be obtained at a low cost in terms of reduction of employment.

Both highly decentralised and highly centralised wage bargaining will present wage setters with less favourable terms of trade between increases in the purchasing power of the wage and employment losses. When bargaining occurs at the firm level, wage setters will realise that there are small possibilities to raise output prices: wage rises will be perceived to give increases of real product and real consumption wages of a similar magnitude. When bargaining is highly centralised, so that wages increase across most of the economy, it will be realised that the resulting increases in product prices must lead to similar increases in consumer prices. So again, wage setters will see small possibilities of raising the real consumption wage without a similar increase in the real product wage.

Under stylised assumptions, wage bargaining at the national level and at the firm level produce *identical* wage and employment outcomes (Calmfors & Driffill, 1988; Moene & Wallerstein, 1993). The assumptions are that (i) firms are perfectly competitive; (ii) the economy is closed; and (iii) the only negative externality is the consumer price one. Under these assumptions, a money wage rise in an individual firm has no effect on prices. Therefore, both the real consumption wage and the real product wage will in this case increase by the same proportion (as the money wage). Under complete centralisation, if money wages are raised uniformly across the economy, *all* prices will increase in the same proportion (but by less than the money wage if there are some product demand variables that are fixed in nominal terms) .So the real consumption wage and the real product wage will again increase in the same proportion, just as in the decentralisation case. For this reason, complete nation-wide coordination and

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[81] An alternative way of regarding this market power effect of coordinated bargaining is as internalisation of a *positive* employment externality, which arises because wage rises in one part of the economy increase labour demand elsewhere.

decentralised wage setting at the firm level imply exactly the same incentives for wage moderation.

More realistic assumptions lead to a number of modifications of the analysis.

(i) *Monopolistic competition* means that also the individual firm has some market power. Because a wage increase in an individual firm will in this case raise the product price, the real product wage will be seen to increase by less than the real consumption wage. This tends to make incentives for wage restraint weaker with decentralised bargaining at the firm level than with coordinated bargaining at the national level (Moene & Wallerstein, 1993).

(ii) *Foreign competition* tends to flatten the relationship between bargaining coordination and the real wage. There are two reasons. On the one hand, competition from abroad restricts the possibilities to raise output prices in response to domestic wage increases. This will be particularly important for wage bargaining at the industry level. If an industry is exposed to a high degree of foreign competition, product prices cannot be raised by much even if the wages of all *domestic* competitors rise uniformly. So the wedge between increases in real consumption and real product wages is reduced. This promotes wage moderation and tends to flatten (or eliminate) the Calmfors-Driffill hump at an intermediate level of centralisation (Danthine & Hunt, 1994). On the other hand, foreign trade weakens the incentives for wage restraint under high coordination relative to low coordination. Because the consumption basket is also made up of imported goods, the consumer price index will increase by less than domestic output prices when all wages in the domestic economy rise uniformly. Therefore, nationwide wage increases raise real consumption wages more than real product wages (Layard *et al.*, 1991; Calmfors, 1993b).

(iii) The existence of a *non-union sector* may have similar effects as foreign trade (Flanagan, 1999). With bargaining at the industry level, competition from non-union firms could exercise downward pressure on wages just as competition from foreign firms. And even with complete coordination within the union sector, there remains a wedge between increases in real consumption and product wages, because the non-union sector is not encompassed.

(iv) *Other externalities* than the price level one, such as the input price, fiscal, unemployment and envy externalities discussed in section 2.1, work in the direction of stronger incentives for wage moderation with high degrees of coordination than with decentralised

bargaining (Calmfors, 1993a). With the exception of the input price externality, these externalities are not affected by the degree of openness of the economy.

6.1.3 Multi-level bargaining

A feature of bargaining at sectoral (or national) level, which is often neglected, is that such bargaining systems in reality mean *multi-level bargaining*. In the Scandinavian countries, higher-level bargaining is typically followed by local bargaining about the implementation of the wage agreement at the level of the firm. Such second-tier bargaining occurs also in e.g. Austria, Germany and Italy. In especially the Scandinavian countries, local bargaining has regularly given rise to wage increases in excess of the increases negotiated at the higher level, so called *wage drift*.

There exist several explanations of this phenomenon. According to one view, it is a response to demand pressures in the labour market. If there are labour shortages employers try to attract and keep labour by raising the relative wage they offer. This interpretation receives support from empirical studies that have found a strong correlation between the labour market situation and wage drift (e.g. Holden, 1990a; Holmlund & Skedinger, 1990; and Hibbs & Locking, 1996). Figure 6.1 illustrates the relationship for Sweden.

Figure 6.1: Wage drift and shortage of skilled workers in manufacturing
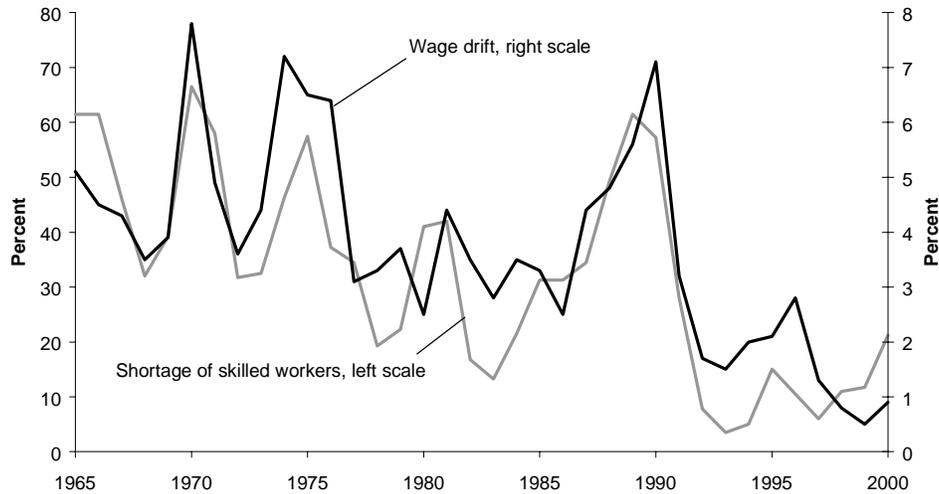
Source: National Institute of Economic Research (KI) and Swedish Employer's Federation (SAF)

Another explanation of wage drift focuses on the fact that local bargaining about the implementation of a higher-level contract is usually conducted under a peace clause, which in practice gives employees a stronger bargaining position than the firm (Holden, 1988; 1990a,b). The reason is that the peace clause effectively prevents the employer from taking industrial action, whereas employees can resort to informal conflict measures, such as go-slow actions, working-to-rule, sick leaves etc., which cannot in practice be regulated. Because employees are guaranteed to obtain at least the wage bargained at the higher level, they can always obtain an additional wage increase in local bargaining.

A third explanation, finally, emphasises conflicts about wage dispersion. To the extent that higher-level unions seek to compress the pay structure, wage drift may be a market response to this "distortion". Hibbs & Locking (1996) find some support for this view.

It has been widely discussed whether or not wage drift affects the final wage outcomes. To the extent that higher-level negotiators can anticipate subsequent wage drift, they should be able to offset its influence on final outcomes through variations in the wages they negotiate. Both Rödseth & Holden (1990) and Hibbs & Locking (1996) find support for this hypothesis.

However, in situations with low inflation and low demand, such off-setting variations could necessitate *reductions* of the money wages that are negotiated at the industry level. As this is not likely to occur, it is possible that the wage drift implied by two-tier bargaining could in such situations lead to higher real wages, and thus lower employment, than would otherwise be the case (Calmfors, 1993b). Holden (1998) has found support for such nominal rigidities in the Nordic countries. It remains an open question to which extent wage drift can be reduced by avoiding flat wage rate increases that apply to everyone in sectoral agreements. In recent years, there has been a tendency in, for example, Sweden to let these agreements determine only the total wage increases in the firms encompassed, and then to give the local union and the firm complete freedom to distribute this total among the individual employees (Elvander, 1999).

6.1.4 Coordination of expectations

Yet another advantage of coordinated bargaining may be that it provides a mechanism of pooling information on wage behaviour among wage setters and therefore of coordinating *expectations* (Bhaskar, 1990). Under uncoordinated bargaining, each union may have strong incentives to match the expected aggregate wage because of envy considerations. This makes *multiple equilibria* possible. Which equilibrium is realised will depend on the perceptions of the wage behaviour of others. For example, if everyone anticipates wages to be high, they will indeed be set high so that expectations are fulfilled *ex post*. Coordinated bargaining may therefore be a way of ensuring that the economy ends up in a good high-employment equilibrium instead of in a bad low-employment equilibrium.

6.1.5 Empirical studies

Considering all aspects, the question of how the bargaining structure affects real wages and unemployment is clearly an empirical one. A number of regression studies of the determinants of unemployment in the OECD countries have been made, in which measures of bargaining

structure have been entered alongside measures of other labour market institutions and sometimes also controls for business cycle conditions. A few studies have tried only to explain cross-country differences in unemployment over longer time periods, but several of the studies have used panel data and thus seek to explain variations both across countries and over time.

Section 5 discussed various measures of bargaining coordination. It was pointed out that two types of measures have been used in the literature: *centralisation measures*, which focus on the actual level at which wage contracts are concluded and the existence of parallel union (or employer) organisations (as an indicator of the number of contracts at the bargaining level in question), and *cooperation measures*, which try also to capture *informal* cooperation between independent unions and employers. A consistent finding in the empirical studies is that the choice of measure matters. When cooperation measures are used, there is support for a monotonic negative relationship between the degree of coordination and unemployment, with higher coordination leading to lower unemployment. When centralisation measures are used, one usually finds a hump-shaped relationship instead. However, high centralisation always produces lower unemployment than decentralisation in the latter studies as well.

Layard *et al.* (1991) and Nickell & Layard (1999) found evidence of a monotonic negative relationship between cooperation measures (giving a large weight to employer coordination) and unemployment. Scarpetta (1996) and Elmeskov *et al.* (1998) did the same for similar cooperation indicators, but they found support for a hump-shaped relationship when they used centralisation indicators or indicators weighting together centralisation and cooperation measures. The latter result was also obtained by Haffner *et al.* (1999). Zetterberg (1993) found a negative relationship using a cooperation index, but could not discriminate between a negative relationship and a hump-shaped one when a centralisation indicator was used. Bleaney (1996) also found that the form of the relationship depended on whether a cooperation or a centralisation index was used. OECD (1997) had problems of coming up with any significant relationships, but found some weak evidence in favour of a monotonic relationship. This study also found some (weak) support

for the hypothesis that more foreign trade will lead to lower unemployment in countries with bargaining at an intermediate level.

Table 6.1 gives a summary picture of estimated effects in those studies that have found the degree of bargaining coordination to be important.

Table 6.1: Unemployment under various bargaining regimes (*ceteris – paribus* differences to uncoordinated/decentralised systems) in various studies[a]

	Study	Intermediate bargaining	Coordinated bargaining	Independent variable	Measure
1	Layard *et al.* (1991)	- 4.7	- 10.4	Unemployment	Cooperation
2	Zetterberg (1993)[b]	- 0.4	- 2.4	Unemployment	Centralisation
3	Scarpetta (1996)[c]	- 6.2	- 12.3	Unemployment	Cooperation
4	Bleaney (1996)[d]	- 2.0	- 3.9	Unemployment	Cooperation
5	Elmeskov *et al.* (1998)[e]	- 0.8	- 5.7	Unemployment	Cooperation
6	Nickel & Layard (1999)	- 4.6	- 6.0	Unemployment[f]	Cooperation
7	Nickel & Layard (1999)	- 9.5	- 19.0	Non-employment	Cooperation
8	Zetterberg (1993)[g]	2.6	- 1.5	Unemployment	Centralisation
9	Bleaney (1996)[h]	3.5	- 2.1	Unemployment	Centralisation/ Cooperation
10	Scarpetta (1996)[i]	0.9	- 12.0	Unemployment	Centralisation
11	Elmeskov *et al.* (1998)[j]	1.3	- 2.4	Unemployment	Centralisation
12	Elmeskov *et al.* (1998)[k]	1.2	- 4.4	Unemployment	Centralisation/ Cooperation
13	Haffner *et al.* (1999)	3.6	- 2.2	Non-employment	Centralisation/ Cooperation
14	Average with monotonic relationship (1-6)	- 3.2	- 6.8	Unemployment	Cooperation
15	Average with hump shape (8-12)	1.9	- 4.9	Unemployment	Centralisation/ Cooperation

Notes:

[a] The table shows how much lower (higher) the unemployment rate is under intermediate and high coordination than under low coordination when other factors are controlled for.

[b] Equation (3) in Table 4.14. We have classified the countries ranked 1-5 as highly coordinated, the countries ranked 6-10 as intermediately coordinated, and the countries ranked 11-17 as uncoordinated.

[c] Equation (2) in Table 1.

[d] Equation (1) in Table 5.

[e] Equation (1) in Table 2.

[f] The equation explains the log of unemployment rate. In the calculation of the effect on the unemployment rate, we have assumed that unemployment under decentralisation is equal to the averge rate of unemployment among the countries studied during the estimation period.

[g] Equation (5) in Table 4.14. We have classified the countries ranked 1-3 and 7-9 as centralised, the countries ranked 13-17 as intermediately centralised and the countries ranked 4-6 and 10-12 as decentralised.

[h] Equation (4) in Table 5. Bleaney distinguishes between highly centralised systems, highly decentralised systems, moderately centralised systems with a high degree of corporatism and moderately centralised systems with a low degree of corporatism. In our table, the last two categories have been amalgamated to one.

[i] Equation (8) in Table 1. The entry for intermediate centralisation refers to the country ranked 14 and the entry for coordination to the country ranked 1. The comparison is with the country ranked 17.

[j] Equation (2) in Table 2.

[k] Equation (4) in Table 2.

Column 3 shows the estimated difference in unemployment between a bargaining system with intermediate coordination and a bargaining system with low coordination when other factors are controlled for. Similarly, column 4 shows the estimated unemployment difference between a system with high coordination and a system with low coordination. As can be seen, the estimated effects are usually very large. In the studies finding a monotonic relationship, unemployment is on average 6.8 percentage points lower under high coordination than under low coordination. The average difference is almost as large, 4.9 percentage points, in the studies finding a hump shape.

It is interesting to compare the results on bargaining coordination with those on union density and coverage of collective agreements in the studies surveyed. In general, these latter variables seem to have lower explanatory power than bargaining coordination. In Zetterberg (1993) and Bleaney (1996), union density and coverage have not at all been included. Estimated effects in the other studies are summarised in Table 6.2.

Table 6.2: Unemployment under various rates of union density and coverage of collective agreements (*ceteris– paribus* differences to 15 % union density or coverage) in different studies[a]

	Study	45 %	75 %	Independent variable	Explanatory variable
1	Layard *et al.* (1991)	2.5	4.9		Coverage
2	Scarpetta (1996)[b]	1.8	3.6	Unemployment	Union density
3	Elmeskov *et al.* (1998)	0.3[c]	0.6[c]		Union density
4	Nickel & Layard (1999)	2,8 6,5[d] 3,7	6,5 5,5[d] 9,0	Unemployment[e]	
5	Nickel & Layard (1999)	0,4[c] 2,8[d] 2,4	0,8[c] 5,6[d] 4,8	Non-employment	Coverage Union density
6	Haffner *et al.* (1999)	2.1	4.2	Non-employment	Union density

Notes:
[a] The table shows how much higher the unemployment rate is at 45 % and 75 % density or coverage rates compared to 15 % density or coverage rates when other factors are controlled for.
[b] Equation (2) in Table 2.
[c] Not significant.
[d] The sum of coverage/density effects.
[e] The explanatory variable is the log of the unemployment rate. In the calculation of the effect on the unemployment rate, we have assumed that unemployment at 15 % density and coverage rates is equal to the average rate of unemployment among the countries studied during the estimation period.

It shows how much higher unemployment is at intermediate (45 per cent) and high rates (75 per cent) of density or coverage compared to low rates (15 per cent). The rates have been chosen to capture the existing span of differences between OECD countries. One conclusion is that differences in union density/coverage seem to matter less than differences in bargaining coordination according to most studies: the only exception is the unemployment equation estimated by Nickell and Layard (1999).

If one takes the reported results at face value, they would seem to imply that changes in bargaining coordination may be more important for macroeconomic outcomes than changes in union membership and coverage of union contracts. But it is not clear, of course, that one can

treat density/coverage and bargaining coordination as independent of each other. It might be more relevant to compare the unemployment effects of systems with both low density/coverage and low coordination (the UK, the US) with systems with both high density/coverage and high coordination (the Scandinavian countries). Theory predicts that it should be easier to achieve high coordination in the union sector, the higher is union density and coverage, as the benefits of cooperation become larger the more employees that are encompassed (Holden & Raaum, 1992). Making this comparison, the estimates suggest that one cannot fully compensate for a lower degree of bargaining coordination by deunionisation: unemployment would, everything else equal, be higher in an economy with low density/coverage and low coordination than in an economy with high density/coverage and high coordination. However, this conclusion presupposes that it is correct to enter density/coverage variables and bargaining coordination as separate variables that do not interact with each other. One could argue that higher union coverage could reduce wages and unemployment at a high degree of coordination within the union sector, because the extent of internalisation is increased, whereas the effect might be opposite at a low degree of coordination, because wages in union contracts are higher than in other contracts. OECD (1997) found some evidence in favour of this hypothesis.

How much should one believe in the empirical studies of the macroeconomic effects of bargaining structure. The studies have obvious limitations. The major drawback is the limited variability in the variables that measure the degree of bargaining coordination. This is obvious when only cross-country variations among around 20 OECD countries are examined. But most of the problem remains in the panel studies too, because there is little variation over time in each country: typically changes in bargaining structure occur very slowly and seldom. For example, in the rankings by Elmeskov *et al.* (1998), there are only 7-9 changes in the bargaining systems within 19 OECD countries over the 1980-95 period (the exact number depending on the measure being used).

6.2. The interaction between unions and central banks

According to the conventional analysis, the degree of coordination of wage setting may have a *direct* impact on real wages and employment. Another possibility is that bargaining structure has an effect because it *interacts* with other institutions. A recent literature emphasises the interaction between unions and central banks. The hypothesis is that coordinated unions will act *strategically* and take the anticipated monetary policy reactions to wage settlements into account. These monetary policy responses are in turn assumed to be related to the degree of *central bank independence*.

The interaction between unions and central banks have been analysed in two ways. The first approach focuses on the existence of an inflation bias for monetary policy, which coordinated unions might want to influence. The second approach analyses instead how central bank responses are likely to affect the employment costs of wage increases.

6.2.1 An inflation-bias argument for wage restraint

Recently, Skott (1997), Cukierman & Lippi (1999) and Velasco & Guzzo (1999) have argued that there exists an inflation-bias argument for why coordinated bargaining should promote real wage moderation.[82] The starting point is the Barro & Gordon (1983) analysis of an inflation bias in monetary policy. Their argument was that when discretionary policy is possible, policy makers concerned with both inflation and unemployment have an incentive to pursue inflationary policies when equilibrium unemployment is higher than their unemployment goal. But because wage setters learn to anticipate this behaviour, all attempts to reduce unemployment below its equilibrium level will fail, and the economy gets locked into an equilibrium with socially inefficient inflation. This inflation bias is larger the higher the equilibrium rate of unemployment, as this is associated with a stronger temptation to pursue inflationary policies.

The argument is now that coordinated unions will realise that they can influence the inflation bias of monetary policy through their real wage decisions, as these affect equilibrium

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[82] These analyses were preceded by Yashiv (1989), Cubbitt (1992, 1995) and Agell & Ysander (1993).

unemployment. So if unions are concerned about inflation (in addition to real wages and employment), they have an incentive to compromise on their real wage objectives in order to reduce equilibrium unemployment, because this induces the central bank to pursue a policy that leads to lower inflation. The interaction between coordinated unions and the central bank will thus add a motive for real wage restraint.

This analysis leads to the conclusion that making the central bank more conservative, in the sense that a higher priority is given to price stability, implies higher equilibrium unemployment. The incentives for coordinated unions to restrain wages in order to hold down inflation become weaker with a conservative central bank, which will anyway keep down inflation, than with a liberal central bank, which is prone to pursue inflationary policies if unemployment is high.

The argument presupposes that wage bargaining is coordinated enough, so that wage setters can expect their decisions to influence aggregate unemployment. If there are effects of this type, they may thus have consequences for the relationship between bargaining structure and real wages/unemployment.

How reasonable is the inflation-bias argument for wage restraint? On the face of it, the argument might seem to provide an explanation of the macroeconomic experiences of, for example, the Scandinavian countries in the second half of the 1970s and in the 1980s. A characteristic feature of these economies then were the combination of high inflation and real wage restraint (Calmfors 1993b; Layard *et al*. 1991). Still, it appears implausible to us that concerns about inflation would play an important role for union behaviour. If this were true, one should have seen unions urging central banks to tighten monetary policy in order to lower inflation, as this would reduce the need for them to compromise on real wage objectives. But this was certainly not the case in the Scandinavian countries even in the 1970s and 1980s, when dependent central banks resorted to a policy of devaluation and inflation. On the contrary, unions usually argued against attempts to pursue less accommodative policies. This appears to have been the case in most other countries, too.

6.2.2 The central bank as a deterrent to wage increases

An alternative approach emphasises instead the role of the central bank as a *deterrent* to wage increases (Hall & Franzese, 1998; Soskice & Iversen, 1998 and 2000; Corricelli *et al.* 2000). According to this argument, unions set wages by trading off real wages against employment without caring about inflation *per se*. Central bank behaviour can then be important because it affects this trade-off.

The reasoning is as follows. Consider a large union which contemplates a money wage rise. The benefit of this is a real wage gain. If there is a neutral monetary policy (a constant money supply), the real wage gain would simply be traded off against the employment loss that arises because the relative price of the products produced by the union members rises, and because the wage rise induces an increase in the general price level which reduces the real money supply. But if monetary policy is not neutral, the reactions of the central bank must be taken into account. If the central bank gives a high priority to price stability, it will respond to the wage rise by a contractionary monetary policy. This policy response reduces the nominal money supply and thus exacerbates the fall in the real money supply. As a consequence, the perceived elasticity of labour demand increases. So a given money wage rise is associated with a larger employment loss than would otherwise be the case. This provides an extra incentive for wage restraint.

This argument reverses the one in section 3.1. The more inflation-averse the central bank, the stronger the incentives of unions to show restraint in order not to trigger a policy response that adds to the employment losses of a wage rise. With this reasoning, conservative (independent) central banks are thus conducive to high employment, because they deter high wages in an effective way.

The deterring effect is likely to be most effective at intermediate levels of bargaining. At very decentralised levels, wage setters do not have to count on any central bank reactions to their wage decisions. And at very high levels of coordination, central bank behaviour may not matter much either, because the incentives for real wage restraint may then anyway be very strong. The latter argument is easy to see if one assumes: (i) a closed economy; (ii) constant returns to scale, so that the output price of each firm equals the wage; and (iii) that the demand for each sector's

output depends on the relative price (the relative wage) and the real aggregate money supply (Soskice & Iversen 2000). With intermediate coordination, unions will trade off the real wage gain (the relative wage increase) that follows from a higher money wage against the employment loss that follows from a higher relative price and a lower real money supply. But with *complete* coordination across the economy, wage setters will realise that they cannot affect real (and relative) wages: all that a money wage increase can do is to reduce the real money supply and hence real aggregate demand and employment. So the best strategy under complete coordination is to set the money wage so that there is full employment. This logic holds independently of how the central bank responds to wage increases.

The threat that the Bundesbank might react to high wage settlements has been pointed to as a moderating influence on earlier wage bargaining in Germany, which is usually considered to have an intermediate degree of coordination of wage setting (Hall & Franzese, 1998; Soskice & Iversen, 1998). Hall & Franzese have referred to "the highly public conversation between the Bundesbank and the principal wage bargainers during the annual wage round". They have stressed how the Bundesbank often issued "warnings about the likely monetary policy consequences of overly inflationary settlements". Cukierman *et al.* (1998) have also found empirical evidence that money supply growth in countries with a high degree of central bank independence, as Germany and Austria, tends systematically to be reduced when nominal wage growth increases.

A similar argument to the one for Germany has been made for Sweden, which in 1992 moved to an inflation-target regime. Calmfors (2000) has pointed to how the union confederation for blue-collar workers (LO) has run a large internal campaign among its officials to convince them about the need for wage moderation in order to avoid interest-rate reactions from the central bank.

The analysis here emphasises that the relationship between bargaining structure and macroeconomic performance may depend on the monetary regime. But the monetary regime might also influence the bargaining structure. Our discussion suggests that non-accommodating monetary policy and coordination of wage bargaining could to some extent be substitutes, because a non-accommodating monetary policy strengthens the incentives for wage moderation

under intermediate bargaining coordination. But with a more accommodating policy, the macroeconomic outcomes will be worse, as the incentives for wage restraint become weaker. This has led Holden (2000) to suggest that there may be a stronger motive for unions (and employers) to coordinate wage bargaining, the more accommodating the monetary regime. This could help explain why accommodating monetary policy and a high degree of coordination of wage bargaining coexisted for a long time in the Nordic countries.

6.2.3 Empirical research

There are only a few empirical studies of the interaction between monetary regime and bargaining structure. Soskice & Iversen (2000) have observed that unemployment seems to be lower in countries with an intermediate level of coordination if there is a high degree of central bank independence. This observation survives in the regressions by Iversen (1998 a and b), who studied the interaction between monetary regime and a centralisation measure of coordination, controlling for a number of other factors. He found that a less accommodating monetary policy reduces unemployment substantially with intermediate centralisation, whereas it raises it with high centralisation.

Cukierman & Lippi (1999) found that higher central bank independence reduces unemployment in intermediate systems, but that it raises it in decentralised ones. The conclusion of Hall & Franzese (1998), who used a cooperation measure, is that higher central bank independence increases unemployment at low levels of coordination, but that this effect becomes smaller at higher levels of coordination (and is possibly reversed at very high levels).

Both Iversen (1998 a and b) and Cukierman & Lippi (1999) also examined how the relationship between unemployment and the degree of bargaining coordination is influenced by the degree of central bank independence. Iversen found that intermediate bargaining coordination would lead to the lowest unemployment at high levels of central bank independence. At low levels of central bank independence, he instead found a monotonic relationship, with higher coordination leading to lower unemployment. The findings of Cukierman & Lippi were different. They found that intermediate bargaining would give the highest unemployment at low levels of

central bank independence, whereas there would be a monotonic relationship, with more coordination leading to lower unemployment, at high levels of independence.

How should one interpret these results? They are obviously not very robust. This is not surprising in view of the limited number of observations of different combinations of bargaining structure and central bank independence. The most that can be said is probably that there is *some* support for the hypothesis that a non-accommodating monetary regime works well under intermediate coordination of bargaining, i.e. under the conditions that prevail in most Western European countries. This conclusion does not seem to depend on how coordination is measured.

6.3. The interaction between taxes and bargaining structure

Another possible interaction is between bargaining structure and taxes. It is a controversial issue in itself whether or not higher labour taxes raise real wages and unemployment. The outcome depends on the extent to which taxes are shifted on to employees. Here, different theoretical assumptions give different results. Empirical studies of wage setting and unemployment have also produced differing results (see Nickell & Layard, 1999; or Calmfors & Holmlund, 2000).

If there is an "income" of being unemployed which is not taxed (real unemployment compensation that is fixed after tax, income from household production, or simply the value of leisure) and bargaining is decentralised, then the real after-tax consumption wage will under stylised assumptions (constant-elastic labour demand and risk neutral workers) be a constant mark-up on the real income for the unemployed (see e.g. Alesina & Perotti, 1997; or Daveri & Tabellini, 1997). In this case, a higher income tax rate leads to a higher pre-tax wage. This increases the labour cost to employers and thus also unemployment.

The extent of internalisation of the government budget constraint is one mechanism through which the degree of bargaining coordination may influence the impact of taxes on wages and employment: with coordinated wage bargaining, wage setters will realise that their own wage decisions, by affecting total wage income, also affect total tax revenues and therefore the amount of transfers from the government they get back. Suppose, for example, that all income taxes go

back to union members in the form of transfers. Then, the real disposable income of union members is independent of the tax rate. As a consequence, if there were complete coordination of wage setting the wage decision should not be affected by the tax rate. So under these extreme assumptions, one would expect a zero wage response to a change in the tax rate (Alesina & Perotti, 1997). In general, such internalisation provides an argument why high taxes should lead to less adverse wage and employment effects the higher the degree of bargaining coordination.

However, according to an argument by Alesina & Perotti (1997) the degree of bargaining cooperation may affect the impact of taxes also through another channel. The argument is rather technical, but reads as follows. In general, a rise in the tax rate raises the wage chosen by each bargaining unit. But the wage rise is to some extent moderated, because wage setters realise that it will also increase the aggregate price level. This moderating effect is, however, in its turn reduced to the extent that consumers substitute away from the goods produced by the labour encompassed by the wage rise when these goods become more expensive. The moderating effect is reduced more, the larger the bargaining unit, since a wage rise then affects a larger mass of products. As a consequence, there exists also a mechanism according to which a tax increase will have a larger effect on the wage, the higher the degree of bargaining coordination. Alesina & Perotti have argued that this effect dominates at low levels of coordination, but that it is overtaken by the internalisation effect discussed above at high levels of coordination. According to their argument, the result is a hump-shaped relationship between, on the one hand, the effect of taxes on wages and unemployment, and on the other hand, the degree of bargaining coordination. In that case, intermediate bargaining coordination would be less advantageous for employment than both highly coordinated and highly decentralised systems because taxes have a larger adverse effect.

There are only a few empirical studies of the interaction between taxes and bargaining structure. Summers *et al.* (1993) found that the total number of hours worked responded less to taxes, the higher the degree of bargaining coordination (measured by a centralisation indicator). They used this finding as an explanation of why countries with more coordinated bargaining seem to have chosen higher government expenditures than other countries. Similarly, Phelps (1994), using a cooperation measure, found that unemployment responds less to changes in tax pressure when wage setting is more coordinated. In contrast, Daveri & Tabellini (1997) and Elmeskov *et*

al. (1998) found support for a hump-shaped relationship between the impact of taxes on unemployment and bargaining coordination. Daveri & Tabellini then distinguished between Anglo-Saxon countries (with decentralised bargaining), continental European countries (with an intermediate degree of coordination) and the Scandinavian countries (with a high degree of coordination), whereas Elmeskov *et al.* used a summary measure of centralisation and cooperation (see table 6.1 in section 6.1). Alesina & Perotti (1997) found evidence of such a hump-shaped relationship between the impact of taxes on the relative unit labour cost of a country and the degree of coordination.

6.4. Bargaining structure and macroeconomic shocks

The implicit assumption in most of the literature on bargaining structure, wage setting and unemployment is that there are stable relationships between, on the one hand, labour market institutions, and, on the other hand, real wage levels and (equilibrium) unemployment, at least during the time period studied. In general, institutional variables do a good job of explaining cross-country variation in unemployment in the 1980s and 1990s and to some extent also variation over time during these periods. But it is equally clear that institutional variables cannot explain the evolution of unemployment in Western Europe over a longer time period: most of the labour market institutions that have been held responsible for recently high unemployment existed already in the 1960s when unemployment was generally low.

These observations make it natural to study the interaction between *macroeconomic shocks* and labour market institutions, such as bargaining structure, when one wants to explain unemployment developments in Western Europe. The hypothesis is then that labour market institutions have affected macroeconomic performance mainly because of their influence on the response to the macroeconomic shocks that have occurred: the productivity slowdown and the oil price increases in the 1970s, and disinflation and high real interest rates in the 1980s and early 1990s. Bargaining structure is important in this context because it may influence the flexibility of both nominal and real wages.

A recent contribution is Blanchard & Wolfers (2000). According to their study, the responses to negative unemployment shocks have been larger in economies with less coordinated wage setting and higher union density and coverage of collective agreements. One suggested interpretation is that it may be easier to slow down real wage growth in response to, for example, a reduction in productivity growth if it can be done in a coordinated way across unions. The preferences of outsiders in the labour market may also be taken into account to a larger extent under coordinated than under coordinated bargaining. Similar results to those of Blanchard & Wolfers were obtained by Phelps (1994) and Haffner *et al* (1999). All three studies used cooperation measures of the degree of coordination.

Some other research is also relevant in this context. Layard *et al.* (1991) found the real wage responsiveness to unemployment to be increasing in the degree of coordination, whereas van Heylen (1993), using a measure of formal centralisation, found a U-formed relationship (with the highest real wage responsiveness in systems with high and low degrees of centralisation). When studying persistence effects, Layard *et al.* (1991) found that a higher degree of employer coordination reduced persistence effects on wages whereas higher union coordination increased them. Scarpetta (1996) found evidence of a hump-shaped relationship between unemployment persistence and the degree of coordination when using measures giving a relatively large weight to actual bargaining levels (with low and high degrees of coordination giving the lowest persistence).

It is not obvious which conclusions to draw on the interaction between macroeconomic shocks and bargaining structure. But the bulk of evidence seems to suggest that a higher degree of coordination leads to smaller unemployment responses in the case of adverse shocks. However. it is also the case that these results have not been subjected to much testing of how robust they are to different measures of the degree of coordination.

6.5. Bargaining structure and nominal wage flexibility

The amount of *nominal wage flexibility* determines how the economy responds to nominal demand shocks. This section discusses how the degree of bargaining coordination is likely to

affect nominal wage flexibility. Three aspects are considered: (1) the length of wage contracts; (2) coordination failures as an explanation of failures to adjust money wages; and (3) social norms on wage changes.

6.5.1 The length of wage contracts

Long-term wage contracts are one reason for nominal wage rigidity. Theories of contract length emphasise the costs of wage negotiations: bargaining consumes scarce time of both firm managers and union officials, it may upset labour-management relations, and there is the ultimate risk of a costly labour-market conflict. The optimal choice of contract length involves a trade-off between these costs and the costs in terms of additional variations in output, employment and profits that arise when wages cannot be adjusted to unanticipated events during the contract period (Ball, 1987; Ball et al., 1988; Calmfors & Johansson, 2000).

In systems with decentralised and unsynchronised wage setting, contract length may be chosen in a socially inefficient way (Ball, 1987). Most notably, there will exist an *aggregate-demand externality*: wage setters in an individual bargaining area will not take into account that a long-term wage contract on their part will contribute to aggregate demand fluctuations in the economy. The reason is that money wage stickiness in a part of the economy means lower flexibility of the aggregate price level in the case of nominal shocks. If bargaining is coordinated and synchronised, wage setters have an incentive to internalise this externality. This effect should work in the direction of shorter wage contracts with a higher degree of coordination.[83]

Another aspect concerns negotiation costs. It is not clear how these are affected by the degree of coordination/centralisation. On the one hand, the delegation of bargaining to higher-level organisations in a centralised system could be a way for both unions and employers to

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[83] Ball (1987) also points to another externality when the choice of contract length is decentralised. It arises because each wage setter will then not take into account that an increase in contract length will contribute to lower real wage variability in other bargaining areas, which will tend to increase welfare there. But this externality is not relevant when one compares a system of decentralised and unsynchronised bargaining with one where bargaining is both coordinated and synchronised. This would indeed seem to be the relevant comparison, as systems where wage outcomes are coordinated are in general also systems where the timing of contracts is synchronised.

economise on resources, by reducing the number of negotiations that need to be undertaken. A similar argument could apply when bargaining is not delegated, but wage setters can more or less copy the contracts struck in a key bargain. This mechanism should tend to make contract periods shorter when bargaining is more coordinated. But on the other hand, coordination in itself involves large costs when various unions and employers are to agree on a common stand (Groth & Johansson, 2000). In addition, because of the association of the union and employer sides with different political groupings, labour-market conflicts at industry or national level may be seen to involve large *political costs*, which there may be strong incentives to avoid. These forces should work in the opposite direction of longer wage contracts when bargaining is more coordinated/centralised.

6.5.2 Coordination failures

Another explanation of nominal wage rigidity emphasises the need for coordination if nominal wage growth (or the nominal wage level) is to be cut. A widely quoted argument is due to Keynes (1936). He argued that the concerns of employees over relative wages would make them oppose money-wage reductions, unless all wages would be cut simultaneously, so as to preserve existing wage differentials. Keynes' conjecture has been questioned for the US on the ground that employees seem to have "little systematic knowledge of pay rates at other firms" (Bewley, 1998). In contrast, evidence for Sweden indicates that inter-firm comparisons do play an important role (Agell & Lundborg, 1995 and 1999). This may reflect the higher degree of unionisation, as a major function of unions is to disseminate information on pay across firms.

One obvious explanation of the difficulty of adjusting money wages in a decentralised bargaining system is that pay deals may be unsynchronised. It is well-known that long and overlapping wage contracts may cause severe rigidities. The reason is that the money wages negotiated in new contracts are then to a large extent tied down by a desire to avoid large deviations form wages in already existing contracts (Taylor, 1980; Jackman, 1985; Blanchard, 1986).

Coordinated bargaining has the obvious advantage that contract periods can be synchronised. This is, of course, the outcome when different firms or sectors delegate bargaining to peak-level organisations. But also when the formal contracts are concluded at a lower level, synchronisation can be achieved through more informal mechanisms of coordination. Japan is such an example, where contracts are concluded at the level of the firm, but where contract periods yet are highly synchronised. Another example is Sweden, where the attempts to coordinate contract periods between sectors have been successful also after nation-wide bargaining was abandoned in the early 1980s. (Calmfors *et al.* 1997). This synchronisation has mainly been achieved by unions themselves, but there have also been government pressures in this direction: the contracts for 1991-92 stand out especially in this respect, because a government team of mediators was then appointed with the double task of scaling down wage increases and synchronising contract periods. In 1997, there was also an agreement on the framework for future bargaining between a number of unions and employer organisations at mainly the industry level, which is likely to have such a synchronisation effect (Elvander, 1999).

One version of the coordination-failure argument in decentralised systems has been advanced by Ball & Romer (1991). They stressed how the benefit of changing the wage (and thus the price) in an individual firm depends on whether other firms do the same. With small demand shocks, adjustment costs may make it unprofitable for each firm to change the wage independently of what happens in other firms. With very large shocks, it will always pay to adjust the wage even if others do not. But for shocks of intermediate size, the individual wage setter may gain from adjusting the wage only if others do the same. This gives rise to *multiple equilibria:* which one that materialises will depend on the expectations of what other wage setters will do. Coordination of wage bargaining is a way of removing this indeterminacy and securing that the economy ends up in a good equilibrium in which wages adjust.

6.5.3. Social norms and downward money wage rigidity

Another line of argument stresses how money-wage cuts (and, possibly, also very low rates of money wage growth) may conflict with *social norms* about *fairness*. Firms do not want to cut

money wages because this would have a negative impact on morale and reduce productivity (Solow, 1979; Akerlof & Yellen, 1990). One can only speculate on how such social norms are affected by the degree of coordination of wage setting. To the extent that the norms reflect concerns about relative wages, we are essentially back to the argument in the preceding section. But if they represent something more intrinsic, we have a much weaker basis for the analysis.

We know from survey studies of the attitudes to wage cuts that these are sometimes accepted at the level of the firm when shocks have been so large that the survival of the firm is at stake (Agell & Lundborg, 1995 and 1999; Bewley, 1998). There are a number of examples of such concession bargaining in various countries. In the case of a severe macroeconomic shock, one could under decentralisation conceive of such concession bargaining in those firms that are hit the most, whereas this may be more difficult to achieve in a more centralised setting. There are many examples from countries like Germany and Sweden of how industry unions have tried actively to prevent such local amendments to sectoral collective agreements (Hege, 1999).

One could also argue that decentralised bargaining is more conducive to performance-related pay in the individual firms, and that such schemes could facilitate downward pay adjustments in recessions. But the contribution to macroeconomic stability depends on how these pay schemes are constructed. For example, profit sharing à la Weitzman (1985), where the normal fixed nominal wage is replaced by a combination of a lower fixed base wage and a profit share, is not likely to reduce employment variations in the case of price shocks. Such profit sharing substitutes the condition that the price x the marginal product = the base wage for the usual profit maximisation condition that the price x the marginal product = the normal wage. If the base wage is set lower than the normal wage, profit sharing obviously raises employment. But variations in the price will produce equally large variations in employment around its average.[84]

6.5.4. Conclusions on bargaining structure and nominal wage flexibility

There is not much systematic empirical evidence on how nominal wage flexibility is affected by the degree of bargaining coordination. This variable has usually not been included in studies of nominal wage flexibility. Alogoskoufis & Manning (1988), however, found a negative association between the degree of centralisation and the responsiveness of wages to prices. In preliminary work, Groth & Johansson (2000) have found a positive relationship between the degree of centralisation and the response of real GDP to changes in nominal GDP growth for most levels of central bank independence. This suggests that higher centralisation is associated with more nominal rigidity. However, at very high levels of central bank independence the relationship appears to be reversed.

As discussed in section 5, social pacts, establishing norms of low nominal wage growth, came about in several of the EU countries that in the 1980s and the 1990s opted for non-accommodating monetary regimes by maintaining fixed exchange rates within the ERM and later for membership in the EMU. The Netherlands, Belgium, Portugal, Italy and Ireland are all such examples (Elmeskov *et al.,* 1998 Pochet, 1999 a, b, and c). A probable explanation is that strong incentives for such coordination were created when it became apparent that reductions of the high unemployment necessitated downward real wage adjustments, and that these in the prevailing monetary regime could only be accomplished through money wage restraint. Norway in the early 1990s is another example where reductions of money wage growth were achieved through a centralised social contract (Holden, 1995).

An interesting case is also provided by Finland, where the central labour-market organisations came very close to an agreement on across-the-board nominal wage cuts in the deep recession of 1991 (Calmfors *et al.*, 1997). The agreement was an attempt to adjust to rapidly increasing unemployment − it rose from 3.5 percent in 1990 to 18.4 percent in 1993 − in a situation when the central bank tried to avoid a currency depreciation. The wage cuts were, however, never implemented, because speculation against the Finnish mark triggered a

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[84] If the employment variations are to be reduced, the base wage must be set so low that there is normally excess demand for labour, in which case price variations would lead only to variations in the amount of

depreciation when one of the major trade unions began to voice concerns over the agreement. One way of reading this experience is that a coordinated wage-setting system may indeed be capable of delivering nominal wage reductions in a non-accommodating monetary regime that is credible enough (which the Finnish regime obviously was not at the time).

To summarise, there are strong *theoretical* reasons to expect coordinated wage bargaining to make nominal wages more flexible. More coordinated bargaining has also in recent years been adopted by several European countries which have achieved real wage reductions through low money wage increases. But there does not exist direct systematic empirical evidence in favour of a positive relationship between bargaining coordination and nominal wage flexibility, although the findings in section 4 that macroeconomic shocks have less pervasive employment effects under coordination might perhaps be seen as indirect evidence.

6.6 Bargaining structure and the EMU

The EMU represents a fundamental change in the European macroeconomic environment. An important question is how this will affect union behaviour and wage setting. As above, we shall distinguish between the effects on equilibrium real wage and unemployment levels on the one hand, and on nominal wage flexibility on the other.

6.6.1 Real wage restraint and bargaining structure

The common currency is likely to reinforce the tendencies towards stronger product market integration that are the result of deregulations, the single market, the IT development etc. (Burda, 1999). As was discussed in section 4, it is not self-evident whether or not this will increase competitive pressures. But to the extent that it does, one can think of more product market integration as increasing the elasticity of product demand. Then also labour demand becomes more elastic. This would strengthen the incentive for real wage moderation in general, but as elaborated in section 2.2, the largest restraining effect on wages should be expected in bargaining

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excess demand.

systems with an intermediate degree of coordination. Because this type of bargaining is common in Western Europe, there might therefore be a substantial effect on equilibrium unemployment. But one should expect this to happen very *gradually* over a long period of time.

A factor that is likely to be more important in the *short run* is the change in the interaction between monetary policy and wage bargaining that the EMU entails. This change will affect the EU countries in different ways depending on their earlier monetary regimes.

In the earlier ERM system, the monetary policy stance was determined by the German Bundesbank. Monetary policy in Germany was pursued with the main aim of achieving price stability in that country. The other ERM countries then had to adjust their monetary policy to maintain a fixed exchange rate against the German mark. This asymmetry may have had important consequences for wage setting. As we discussed in section 6.2.2, the threat of monetary policy reactions is likely to have acted as a strong deterrent to wage increases in Germany putting price stability there at risk. This mechanism did not work in the other ERM countries, which had their monetary policy tied down by the fixed exchange rate, so that the central banks could not react to wage increases. However, low German wage increases helped keep down wage increases also in the other ERM countries because their producers were competing with German ones. Such considerations may have played a role for unions especially in Austria, Belgium, and the Netherlands, where wage comparisons with Germany have been important (Hochreiter & Winckler, 1995; Visser, 1998; Pochet, 1999 a and b).[85]

With monetary policy now being determined by the ECB, the relationship between monetary policy and wage setting has changed character (Hall & Franzese, 1998; Soskice & Iversen, 1998). For Germany, EMU membership can be regarded as an effective decentralisation of wage setting in the sense that wage bargainers become too small relative to the central bank responsible for monetary policy to make strategic considerations. German trade unions need no longer fear that large wage increases will trigger a monetary policy response that adds to unemployment. The common monetary policy thus means a lower effective elasticity of labour

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[85] In the case of Belgium, the Competitive Acts of 1989 and 1996 even stipulated formally that wage bargaining must be based on the judgement of the Central Economic Council (an advisory body) of the development of wage competitiveness relative to the major trading partners (Germany, France and the Netherlands according to the 1996 act).

demand with respect to wages. This should work in the direction of higher wages and lower employment in Germany. This effect will be absent in the other euro countries that were earlier members of the ERM system, as monetary policy there could not play the role it did in Germany. These countries will, however, be affected to the extent that higher wages in Germany mean less competitive pressures to hold back their wages.

A similar argument as the one for Germany may apply to Sweden, where the bargaining structure in recent years has moved closer to the German model with an emphasis on the industry level. After a number of devaluations in 1976-92, the Swedish central bank has successfully established a credible inflation target regime. This has been underpinned by a higher degree of independence of the central bank. Swedish membership in the EMU could therefore eliminate the threat of interest-rate reactions to wage increases that Swedish unions seem to perceive today (Calmfors, 2000), This reasoning builds on the assumption that the inflation-target regime is indeed credible. If the alternative to EMU membership is a monetary policy where the central bank is expected ultimately to react to inflationary wage increases by an accommodating policy, the argument is reversed. EMU membership then creates stronger incentives for wage discipline. Such an argument might perhaps fit the Italian picture, but it has also been made in Finland, which has a long history of devaluations in the post-war period.

To the extent that the EMU means less wage restraint and higher unemployment, because monetary policy becomes a less effective deterrent to wage increases, the functioning of bargaining systems with an intermediate degree of cooperation will deteriorate. This factor could very well dominate in the medium term. So in this time perspective, alternative bargaining arrangements could become more attractive. This could work either in the direction of more decentralisation or in the direction of more coordination, as argued by Holden (2000). The recent moves in the direction of more coordination in Germany (Bundnis für Arbeit) might perhaps be interpreted in this vein as an attempt to substitute a more cooperative wage setting system for the earlier policy game between the Bundesbank and the unions.

6.6.2 Nominal wage flexibility in the EMU

Another issue is how the EMU is likely to affect nominal wage flexibility under current bargaining institutions. Here, there exist different perspectives. The most common view is probably that the common currency increases the demand for nominal wage flexibility, because there is a need for alternative adjustment mechanisms when there is no longer a domestic monetary policy. The argument rests either on the risk of asymmetric shocks (see *e.g.* Calmfors *et al.*, 1997; or Obstfeld, 1998) or on the risk that a common monetary policy could affect the various economies differently (Dornbusch *et al.*, 1998). An alternative view is that exchange-rate variations due to financial disturbances are the most important source of macroeconomic instability (Canzoneri *et al.*, 1996; Vinals & Jimeno, 1998; Buiter, 1999). With this view, a common currency would rather reduce the need for nominal wage flexibility.

A third possibility is that an own monetary policy works mainly as an *insurance* against *very large* shocks that occur only infrequently (Calmfors *et al.,* 1997; Mélitz, 1997). Even if exchange-rate flexibility does not contribute to macroeconomic stability in normal times, it may do so at specific occasions when it really matters. Examples are German unification and the deep recessions in Finland, Sweden and the UK in the early 1990s, when large stabilising exchange-rate changes did occur.

It is thus not self-evident whether or not the EMU will lead to larger macroeconomic variability. But we shall ask the conditional question: *if* this were to happen, will nominal wages become more flexible? As discussed in section 6, one can look at the issue from two perspectives: contract length and social norms. If long contract periods are the main reason for nominal wage stickiness, one could, on the one hand, argue that an increase in macroeconomic variability in the EMU would work in the direction of shorter contract periods. But on the other hand, lower inflation than earlier would work in the opposite direction (Calmfors, 1998).

One way of increasing nominal wage flexibility could be *wage indexation.* It has been argued by Leichter (1998) that the EMU might strengthen the incentives for such indexation. The advantage of wage indexation is that it stabilises real wages, and thus employment, in the case of product demand shocks. But indexation also imposes a cost to the extent that it reduces the

effectiveness of monetary policy to offset supply shocks. This cost is smaller for a country inside the EMU, where monetary policy stabilises only symmetric shocks, than for a country outside, which can use monetary policy to offset asymmetric shocks as well. This may provide an incentive for more indexation in the EMU. A related argument is that demand-induced price variations may become larger in the EMU when there is no domestic inflation target that is being stabilised (Calmfors, 2000). An argument against more of wage indexation is, however, that indexation arrangements have been most frequent in periods of high inflation. They have then been used mainly as a way of reducing bargaining costs by providing an automatic adjustment mechanism for wages rather than as a shock absorber.

Another view is to regard social norms against wage cuts as the main obstacle to nominal wage flexibility. The relevant question is then how these norms are likely to change with EMU membership. An interesting perspective on this is given by two recent studies by Agell and Lundborg (1995 and 1999). The two studies asked similar questions to Swedish personnel managers in 1991 and 1998 about their judgements on the acceptability of wage cuts. Although Sweden moved from stable low unemployment to high unemployment and from high inflation to a credible low-inflation regime, there was no change in attitudes between the two studies. This suggests that even very large macroeconomic regime shifts may be insufficient to change the attitudes to wage cuts in unionised labour markets.

Our conclusion is that the EMU in itself is not very likely to lead to more nominal wage flexibility under present bargaining conditions even if this were to be required. But a crucial issue is to what extent a perceived need for more nominal wage flexibility could lead to changes in the bargaining structure. This is discussed in section 7.

6.7 Conclusions

This section has surveyed theoretical and empirical research on the relationship between bargaining structure and macroeconomic performance. The survey has been used as a basis for discussing the effects of the EMU on collective bargaining.

An important *caveat* is that the stability of bargaining institutions over time provides a serious limitation to empirical research. We do not have the variability in the data that we normally want in order to make statistical inferences. A consequence is that empirical results become very sensitive to how we measure the degree of bargaining coordination. But if we take results at face value, they can be summarised as follows.

(i) There is ample empirical support for the theoretical proposition that highly coordinated wage bargaining promotes real wage moderation and low unemployment. This holds both when the degree of bargaining coordination is assumed to have a direct effect and when it is assumed to interact with tax pressures and macroeconomic shocks.

(ii) It is less clear how an intermediate degree of bargaining coordination (industry bargaining) and decentralised bargaining at the firm level perform relative to each other. Here, the theoretical conclusions are ambiguous. There is about as much empirical support for the hypothesis that decentralised bargaining performs better than an intermediate degree of bargaining coordination as there is for the reverse hypothesis.

(iii) There is a theoretical case for why a non-accommodating monetary policy regime should promote wage restraint, and thus employment, in bargaining systems with an intermediate degree of coordination. There is *some* empirical support for this hypothesis.

(iv) There is a lack of direct empirical evidence on how nominal wage flexibility is affected by the degree of bargaining coordination. But theoretical considerations suggest strongly that nominal wages should be more flexible with a high degree of coordination. The finding that macroeconomic shocks tend to have less adverse employment shocks under coordinated bargaining can perhaps be interpreted as indirect support for this hypothesis.

(v) In the *long run*, the EMU may contribute to more competitive pressures (though this may depend upon the success of European industrial and competition policy), which will produce more wage restraint especially under industry bargaining, which is the dominating regime in most EU countries. But in the *short run*, the change in the game between unions and central banks, which is implied by the EMU, may dominate. In the earlier ERM system, wage settlements in Germany - and thus in the whole euro area – may have been held back because union feared the

monetary policy responses of the Bundesbank. This restraining force does not exist in the EMU, where each union will be too small relative to the ECB for making strategic considerations.

The empirical studies suggest that unemployment, everything else equal, may be *much* lower under high bargaining coordination than under low (even if low coordination and decentralisation may possibly lead to lower unemployment than intermediate coordination). This effect appears to be stronger than the unemployment-reducing effect of lower union density and coverage. If this is correct, it may have important implications for the future. The combined effect of a long-run trend towards both lower bargaining coordination and deunionisation on employment could very well be negative in countries that have traditionally had high coordination. The most favourable scenario from an employment point of view might be one which combines high coordination with lower unionisation. This may not, however, represent a feasible scenario in the long run. These alternative possibilities are discussed in section 7.

7. Conclusions

7.1. Main Findings of the Report

In Sections 2 and 3 of this report, we charted the decline in union density experienced by most European countries in the last two decades of the 20th century, and posited a number of reasons for this decline. Of course union density is only one facet of union power - albeit an appealing one because it is relatively easily measured. We also emphasised that there are other important aspects of union strength - such as the extent of union coverage of collective bargains; the degree of co-ordination in wage bargaining of unions or employers groups or both; and the degree of centralisation of such wage bargaining. In many cases, these measures have a more profound effect on macro-economic performance and union wage gains than does the simple headline measure of union membership. We have documented the importance and implications of various combinations of union coordination and centralisation, and emphasised their channels of influence on macroeconomic outcomes.

What are our principal conclusions? Section 2 charted patterns in union membership across European countries and over time and addressed the question of whether Europe's unions have been in decline in the closing years of the 20th century. To answer this question the section considered net union membership density rates, i.e., membership as a share of wage earners and salaries of employees in employment. In 1991 the OECD published a survey of trends in union membership and union density during the 1970s and 1980s (Visser, 1991). One of its main conclusions was that in all but a few countries (Sweden, Denmark, Finland, Norway, Belgium and Canada) the post-war expansion of trade union organisation had halted and turned into decline in the 1980s, sharply contrasting what had in Europe been the main trend in preceding decades. On the basis of new data we have examined developments in the 1990s.

We show that union decline has continued in the 1990s in both the European Union and the United States (as well as in Japan). Unionization in Western Europe is now 12 percentage points below its post-war peak of 44 percent in 1979, and is now lower than at any time since 1960. Yet, average union density in the EU is still more than twice the level of unionization in the US (and

about 10 percentage points above the level in Japan). On the basis of 1980s trends, Golden et al (1999: 223) concluded that 'our data support the view that industrial relations institutions and trade unions have by and large been quite resilient in the face of considerable domestic and international economic pressures in the past two decades'. But trends in the 1990s have proved them wrong. Even in the Nordic countries union growth has halted (in absolute and relative terms). Since unification and the take-over of the unions from the former GDR, German unions have lost more than three million members, while existing bargaining structures are eroding. Union decline in Britain and France has continued. The Austrian, Irish or Italian unions are in a stronger position but lost considerable terrain. Dutch and Swiss unions have at best stabilized their position—at a much lower level of unionization than in the past.

The section then examines possible explanations for union growth and decline and group these within one of three approaches: cyclical, structural, and institutional (Ebbinghaus and Visser, 1999), and examines the contribution of each to the observed patterns in union membership. One of the conclusions of this section is that cyclical and structural approaches cannot explain cross-national diversity in union membership patterns as trends and cycles are too similar between European countries. This puts some weight on the importance of institutional explanations concerning factors such as recognition, centralisation and coverage rules. The section concludes by addressing the question of what unions might do in the face of the opportunities and challenges that confront them at this point in history, and cites Hyman's four alternative union identities that might guide union evolution over the coming decades. These are: (i) unions as service providers, (ii) unions as a partner with firms in productivity coalitions, (iii) unions as a corporatist partner in social pacts and (iv) the union as a *social movement*, campaigning for the dispossessed, the excluded, the poor and the weak. The section concludes that unions advance, in membership and inclusiveness, when they put forward practical programs of action that (a) benefit their members or potential members (models 1 and 2), (b) solve problems in the broader society (model 3)—often, problems of capitalists on whose well-being the rest of society depends (model 4), and (c) by doing both these things achieve the economic benefits, political credit and social respect to secure support for their own organization. These issues are discussed further below.

In Section 3 we used a business cycle approach to study the determinants of union density over the period 1960-95. We found that union density is significantly affected by labour market slack (proxied by unemployment) and compositional effects (a negative impact of increased labour market participation, as measured by the employment rates, and a positive effect of educational attainment in the population, as measured by the population with secondary degree or more). For a subset of countries, we also show that the sectoral changing composition (decline of industry and increase in private services) and increased flexibility in the labour market (as measured by temporary workers) have an adverse effect on density.

The general pattern is common to all the fourteen European countries analysed, although there are national variations owing to inflation rates, wage shares on value added, unemployment subsidies and government political orientation. However, the Nordic countries are distinct from the rest of Europe, in that they exhibit a positive long run relationship between union density and unemployment. A possible explanation is that Nordic unions also provide services to the unemployed (the so-called Ghent system). It is interesting that these results are robust to a European-wide aggregation of the data, in which we consider Europe as a single labour market or country.

Section 3 suggests that the future for European unions may appear less gloomy – from the union perspective - than suggested at first glance. Two offsetting tendencies are at work here: if improved macroeconomic conditions were to provide labour demand expansion, we would expect a reduction in unemployment and, other things being constant, an increase in membership. On the other hand, increased labour market participation (especially in southern European countries) brings to the labour market people who are employed in more precarious jobs (like the retailing sector). The overall impact is hard to predict. The experience of Nordic countries suggests that there is a potential role for unions even under adverse labour market conditions, provided that unions are concerned with the entire labour force, and are able to provide services to both the employed and unemployed. This may be beneficial, because it creates a precondition for wage bargaining co-ordination, argued in other sections to have positive macroeconomic effects.

Section 4 examined the determinants of unions' influence over wages and focused on the

likely impact of trade and economic integration on the capacity of unions to exert an influence on pay and remuneration. Our main argument is that if changing patterns of trade do not enhance product market competition – which is by no means certain - then there is little reason to suppose that the conditions for unions to influence wage outcomes will necessarily deteriorate as integration deepens. We explored the general conditions under which unions are likely to be able to exert a bargaining influence over pay and conditions. We argued that two principal conditions must be met: first that there is some surplus to share and second that union bargaining power is substantial. The existence of any surplus will depend primarily on the extent of product market competition. Much of the single market programme is aimed at generating intensified European competition. To the extent that this occurs, monopoly-like profits should fall, thereby squeezing the capacity of unions to raise wages above non-union or competitive levels. Against this tendency, however, European integration also facilitates the strategies of transnational firms, and enables them to establish product market domination across Europe. This raises new challenges both to European policy makers and to unions. On the one hand, the development of pan-European monopoly raises the likelihood that big firms will enjoy large profits and hence generates potentially rich rewards to powerful unions. On the other hand, the international basis of these firms enables them to switch production and hence undermines the bargaining position of unions. We explored the issues likely to determine which of these tendencies dominates.

We also addressed in Section 4 the question of what other factors influence union bargaining power. We emphasised the importance of the capacity of the union to control labour supply. In part this will depend on the extent of wage-coverage agreements and in part on the level of union membership: both at plant and at industry-level. The capacity of the union to threaten credibly to damage the firm's profitability in the event of a conflict is also crucial. This is influenced significantly by the legal framework in which bargaining takes place, and by the state of competition in both the product and labour markets. Thus, economic integration, trade, foreign direct investment behaviour, as well as European labour law, all shape union influence in wage bargaining.

A key argument, then, of Section 4 is that economic integration is associated with forces that will not necessarily increase product market competition. This challenges the easy, but

mistaken, assumption implicit in most discussions of European economic integration that it must enhance competition. There are many reasons to suppose that increased European trade will be dominated by large trans-European companies and this may diminish national competition, at least in some sectors. Thus, policy-makers should not be complacent about the implications of integration for competition - and the consequent impact on the labour market. Instead, industrial and competition policy at the European level will have to be pro-active in enhancing the prospects for increased competition in European product markets. With appropriate competition policies, integration can be used as a tool to generate greater competition. The general conclusions of our report are premised on the assumption that such policies will be in place, so that European labour markets will be expected to face conditions which increasingly reflect greater product market competition.

In Section 5 we looked at the distributional aspects of trade unions, as well as other important areas of union influence. In addition to negotiating pay and other important aspects of the remuneration package, unions provide a number of services to their membership, including political advocacy. Unions can also affect economic efficiency in a number of positive - as well as negative - ways. Indeed, unions play a central role in European economic life, and it is premature to write them off based on the declining union density figures observed over the last two decades. In Section 5 we also document the relationship between various measures of centralisation/coordination and union density. This section describes the various social pacts, tripartite structures etc operating across different European countries, and provides a detailed account of European bargaining structures. The section stressed the importance of bargaining arrangements as a determinant of the capacity of organised labour to influence labour market outcomes. Analyses of the effects of bargaining arrangements typically assume bargaining structures and institutions are determined exogenously. We addressed in this section the issue of what might lie behind the tendency in some countries towards the decentralisation of union-firm bargaining, at the same time as a move in other countries towards more 'informal coordination' in connection with social pacts.

Section 6 focused on one of the most important aspects of union presence: the extent of bargaining coordination. The section analysed the impact on aggregate wage levels and

unemployment. The degree of bargaining coordination may have both a direct effect on wage setting and an indirect effect because it interacts with other factors, such as monetary policy, taxes and macroeconomic shocks. There exist two main hypotheses. According to the first one, more bargaining coordination will always promote wage moderation (a monotonic relationship), because a number of negative externalities of wage increases in individual bargaining areas can be internalised. According to the second hypothesis, the relationships between bargaining cooperation and the aggregate real wage/ unemployment levels is instead hump-shaped, with both high coordination and decentralised bargaining at the level of the firm resulting in lower real wages and unemployment than intermediate coordination (industry-level bargaining). The explanation is that bargaining at the industry level may give unions a high degree of market power.

Empirical studies give about as much support to both hypotheses. But the studies seem to agree that highly coordinated bargaining is associated with substantially lower unemployment than decentralised bargaining when other factors are controlled for. Differences in the degree of bargaining coordination seem also to have larger unemployment effects than differences in union density and coverage. This suggests that a change from systems with both high coordination and unionisation to systems with both decentralised bargaining and low unionisation might lead to adverse unemployment consequences in the absence of other changes in labour-market institutions. Theoretical reasoning also points to a risk that less coordinated bargaining could be associated with less nominal wage flexibility.

Moreover, Section 6 also suggests that European monetary unification is likely to change the incentives for union wage setting under present institutional conditions. The reason is that the earlier policy game between the Bundesbank and unions in Germany may have put a lid on European wage increases, because unions perceived a need to hold back wage increases in order not to provoke interest rate increases. This deterring effect is likely to disappear in the EMU, which means a *de facto* decentralisation of wage bargaining, as all unions will become too small relative to the ECB to have to consider any policy responses to their own actions.

7.2. Prospects for Union Membership in the Future

What are the prospects for union membership in Europe? Hyman (1994) sketched four alternative models of trade unions. His first model, premised on the British development of a displacement of collectivism by individualism, assigns to the union the role of *provider of services* to workers as individuals. According to Section 2, new members hardly ever mention financial reasons (extra discounts, credit cards and other gadgets, introduced by a number of unions following the American example) as the reason why they joined the union, but 'loyalty programs' may play a role in adding to the inertia of membership once people have joined. Instead, they mention 'support should I have a problem at work' as their motive (Waddington and Whitson 1997; Klandermans and Visser, 1995). In the Netherlands, almost two out of five leavers mention disappointment with the union 'product' (no adequate help or support) as their main reason for leaving; 29% had no longer use for the union after changing jobs; 24% complained about the price of membership; 21% disagreed with union policy (Klandermans and Visser 1995). One lesson is that the union must be present in or near the workplace, and run an adequate legal service.

Hyman's second model is based on a *productivity coalition* with the employer, and is analogous to the notion of a 'company union' or the works council as it exists in - for instance - Germany. In this model, the co-operative dimension of the union is emphasized within a context of decentralized and fragmented unionism, somewhat similar to the Japanese enterprise union. The basis of the new formula is found at the micro level, and emphasizes 'the sharing of economic risk and responsibility in a less predictable environment' and 'the joint search for "win-win" strategies in competitive markets'. This model has some support among members, especially among insiders with access to job rights and works council representation. In 1993, more than 50 per cent of Dutch workers (strongly) agreed with the statement that union representatives in the works council should place company interests before union interests (Klandermans and Visser, 1995: 175). In a Danish survey of union members, conducted in 1997, 57 per cent agreed with the statement that 'there is a community of interests with employers',

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whereas only 15 per cent felt that the two sides were in conflict (Bild, Jørgensen, Larsen and Madsen, 1998: 199). Such views, no doubt, vary across countries, but even in Italy a practice of 'microconcertation' (Regini, 1991) developed, in spite of union or employer policies in Rome. The viability of the 'company union' model must be doubted, however, and not only because it goes against the continental European tradition of political unionism. It would be truly paradoxical should European trade unions adopt the company union model at a time that internal labour markets are (according to some evidence) destabilized, and phenomena like outsourcing, network-firms, industrial districts, tele-labour, and itinerant employment indicate the dissociation between 'employment' and 'company'.

The third model of unionism is based on the model of *political exchange*, corporatism or social pacts. After a difficult period, this model has regained some popularity, both nationally and at the European level. One of the interesting phenomena of recent years is the resurgence of a 'social dialogue' in many European economies. In a number of countries - notably Ireland, Italy, Portugal, Spain, and Finland - this has taken the form of Social Pacts. In other countries, like Austria, Norway and the Netherlands, macro-social concertation has never been absent. In Belgium and Germany attempts to negotiate national employment pacts failed in the mid 1990s, but there was a restart in later years (Fajertag and Pochet, 2000). However, the possibility of a social pact does not appear realistic in France or the UK, and sits uneasily with current decentralisation trends in Denmark and Sweden, two countries with a tradition of nation-wide policy co-ordination in wage, employment and social policy).

In substance, the social pacts of the 1990s are very different from the incomes policies and social contracts of the 1970s, which were attempts to enlist union support for anti-inflationary wage setting in a context of Keynesian demand management.[86] But unions come from a much weaker position to the bargaining tables of the 1990s. The recent social pacts were concluded to ensure participation in Europe's Economic and Monetary Union. They are designed to guarantee an inflation-proof and productivity-oriented wage policy; to reduce ancillary wage costs through a

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[86] The goal was to allow governments and central banks to pursue expansionary fiscal and soft monetary policies, needed to defend high (public) employment levels and to finance a still expanding welfare state. With the political commitment to full employment, trade unions held an important power resource in this process of political exchange insofar they could defeat the government's inflation target and destroy electoral chances.

change in the financing of social security with less negative effects on employment; to adjust social security to new patterns of work and life; to increase the flexible deployment of labour; and to improve participation and consultation rights for workers in enterprises.

Hyman's fourth model is based on the model of the trade union as a *social movement*, campaigning for the dispossessed, the excluded, the poor and the weak. This model of unionism stresses its ideological underpinnings, and strikes a more populist chord - perhaps in alliances with political parties, churches and other campaigners. Hyman appears to assume that this union model would have left leanings, but that need not be so. In any case, on particular issues - for instance, environmental policies, pensions, flexibility, work on Sundays, immigration or jobs for asylum seekers - the divisions among unions and unionists themselves cannot be ignored.

The membership figures presented in this report did not include union members among unemployed, self-employed and retired workers, who make up a total of 14 million members, roughly a quarter of the total union membership in Western Europe. The ETUC is probably Europe's largest pensioner's organization. The proportion of retired members varies between 50% of all members in the Italian unions and around 10-20% in the main federations in Northern Europe. Unemployed union members are less numerous. Only about two of the 18 million unemployed in the EU in 1997 were organized by the trade unions, most of them in Sweden, Finland, Denmark or Belgium. Movements of unemployed workers, outside the main unions, have made their appearance in 1997 in France and Germany, and have been involved by the Irish Congress of Trade Unions in the re-negotiation of the latest social pact ('Partnership 2000'). In some cases, notably in France, the claim of unions that they represent the unemployed in the governing boards of national social insurance funds, has been challenged. The European Social Dialogue has been criticized for its apparent exclusion of other relevant groups and the absence of citizen involvement (Betten, 1997). It is not clear that it represents union members' interests.

What is likely to happen to union density in Western Europe in the future?

It is probable that union density will continue to fall. According to our econometric model of union density, reported in Section 3, increased participation rates will bring into the labour

market individuals who are less likely to unionise, mainly because they will find more precarious jobs (in terms of both contract length and stability of the occupation). For this reason, we would expect union density to decline. On the other hand, if aggregate unemployment can be reduced, average union density will increase (the Nordic countries are an exception here, but they represent a small percentage of the population of Western Europe). However, there are also other labour market changes that could not be picked up using the aggregate data of Section 3, and which are likely to work against any reversal of the trend decline in union density. The growth in non-standard work (such as temporary jobs, fixed term contracts, part-time work and the like), and the expansion of service sector, are all likely to contribute to declining union membership, unless unions are able to attract non-standard workers with innovative new organising strategies.

It is also possible that some of the EU Directives may undercut unions' attempts to expand into non-standard work, since the directives provide protection that unions might otherwise have supplied. Such mandatory institutions may also compete with the unions for members in standard employment, in the sense that they take away the need to seek insurance of working conditions through membership. On the other hand, the European directive on works councils may strengthen membership at the local level, and may create networks of employees in transnational companies, thus facilitating transnational coordination. In addition, collection of dues and organisation may be easier with the new information technology. Moreover, the integration of product markets may have quite complex effects on union membership, as will be discussed below.

Union density need not continue to decline. Unions across different EU countries might react to declining membership in a variety of ways, in order to reverse current trends. Unions may be able to attract non-standard workers with innovative new organising strategies – perhaps following Hyman's first model of the union as a provider of services, including grievance procedures. Or unions and firms might cooperate to increase productivity – a possibility that fits well with decentralisation of bargaining – and thereby follow Hyman's second model. The third model – the union as part of a political exchange (as in a social pact) sits well with coordinated centralised arrangements, but not with decentralisation – and it is difficult to see how this would lead to an increase in density without some sort of statutory involvement or the union provision

of services. The final model – the union as a social movement – would satisfy the concern of social policy for the socially excluded, but it is unlikely that unions would increase membership among the workforce were they were to follow this model.

Union density is, as we have emphasised in this report, just one facet of union influence. And while we believe that - based on current trends - union membership in Western Europe will continue to decline, the prospects for union influence are considerably less clear. For this reason, we now sketch out a number of possible scenarios for the future of collective bargaining in Western Europe.

7.3 Four Scenarios for Collective Bargaining in the Future

Sections 2 and 3 emphasised the factors contributing to union density decline over the last few decades of the 20th century. However, Section 5 indicated that there is no clearly identifiable concomitant trend in the 1990s in the other important indicators of union influence - coverage, coordination and centralisation. While in some countries we have seen a tendency towards more decentralisation of the level at which formal bargaining takes place, at the same time we have also observed in other countries more 'informal coordination' in connection with social pacts. It is too early as yet to be able to observe the full impact on the level of collective bargaining of the Europeanisation of monetary policy and product market integration. However, in this section we provide our views about various likely scenarios for the next decade or so. We also give at the end an opinion - based on our judgements as to relative probabilities - about which scenario is most likely to occur.

We distinguish four different possibilities for the future evolution of collective bargaining in Europe. These are: (1) a continued trend towards more decentralisation of bargaining to firm and local levels; (2) a development where tensions in the monetary union promote national coordination attempts very much along the lines of the social pacts of recent years in some countries; (3) a movement towards high-level transnational coordination of bargaining; and (4) a development where decentralisation to the firm level is combined with transnational co-operation within large transnational firms: a kind of transnational coordination from below. We next

discuss the forces that are likely to work in favour of the alternative scenarios and try to evaluate which of them are the most probable.

Scenario 1: Declining union density with decentralisation of collective bargaining

Our first scenario encompasses a continuation of the trend, working at present in some countries, towards more decentralisation of bargaining to firm and local levels. A possible development is that this decentralisation becomes the dominant pattern across the countries of Western Europe.

A general trend towards lower rates of unionisation and less coverage of union contracts will work in the direction of decentralisation of wage bargaining to the firm level. As discussed in Section 6, the gains from bargaining coordination between unions at sectoral or multi-sectoral levels are larger the more employees are encompassed (Holden & Raaum, 1991). So lower union density and coverage means that there will be smaller benefits of coordination and centralisation to higher bargaining levels against which coordination costs can be offset. And the incentives for local unions to renege on sectoral or multi-sectoral agreements become stronger, if these produce smaller gains when fewer employees are encompassed.

As we discussed in Sections 2 and 3, the increasing importance of small and medium-sized firms - not least in the service sector – is also likely to work in the direction of deunionisation. In the UK, the prospects for union recognition at new smaller firms are low (Machin, 1999). The basic explanation is that costs of union organisation are larger in small firms. And if a growing proportion of the labour force is employed in small and medium-sized firms, the coordination costs involved in higher-level bargaining will also increase, which will favour decentralisation of bargaining to the firm level.

Where a development towards more decentralised bargaining has occurred, it has usually

been driven by employers. It is obvious that bargaining at the local level can confer a number of advantages to firms. Decentralised bargaining will facilitate adaptability to local product demand and labour supply conditions. Decentralised bargaining also allows individual firms – market failures apart - to find the pay levels, pay systems, working-time arrangements, training schemes, and other productivity-enhancing measures, which are most suited to the specific conditions they meet. This is likely to be more important the more heterogeneous firms become.

Local-level bargaining can allow for more incentives to employees to increase output. Incentive schemes that are based on individual output, or the output of workplace-based teams, are best done at the local level, where output is easily measured. Incentive schemes that make employee pay contingent on company performance are also easier to implement at the local level than at higher bargaining levels, as these can be coordinated with basic pay schedules – although this argument is not so compelling for annual disbursements of shares in company profits.

Another factor that may be behind the interest of employers in decentralised bargaining at the firm level is that centralisation of bargaining appears to be conducive to pay compression, as we discussed in section 5. Employers may therefore see decentralisation as a method of making larger pay differentials possible, which is likely to stimulate productive efficiency as well as facilitate more efficient labour allocation.

Another advantage of decentralised bargaining for employers relates to its potential to limit union power to the workplace. Indeed, the new UK recognition machinery is a manifestation of the political desire not only to impart worker democracy and give unions a role and accountability, but also to limit their overall power.[87] In Sweden, the motivation for the decision of employers to abandon national bargaining was mainly a desire to reduce the political clout of the trade union movement.

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[87] The new UK recognition machinery – introduced by the Labour Party in its 1999 Employment Relations Bill and loosely based on US representation elections – may lead to even more decentralisation of bargaining in that country.

Just as the wage level is the outcome of a bargaining process, the level at which bargaining occurs could be seen as the outcome of a bargaining process, too, when employers and employees have different interests. The choice of bargaining level will then reflect the relative bargaining strength of employers and labour. A trend towards decentralisation could then be viewed as a shift in bargaining power away from unions and towards firms, who will try to pick the bargaining level that not only affords them the most 'surplus' net of labour costs.

One reason for such a shift of bargaining power could be related to increased product market integration, to which we shall return in our scenarios 3 and 4. Another probable reason is that falling union density may weaken the power of unions. The wide divergence between union density and coverage found in some countries - what was termed in Section 5 'excess coverage' - means that union presence and coverage must be maintained by erga omnes institutions. Continuing falls in membership will mean that these are being run by fewer and fewer individuals, threatening the credibility and democratic legitimacy of unions in these countries, and weakening their bargaining position. As a consequence, firms might face less opposition in shifting to their own preferred bargaining structure.

If decentralisation occurs as a response to preferences of employers, it might seem natural to conclude that it is only bad for employees. But this conclusion is not self-evident. Sometimes the goals of employers may coincide with bargaining arrangements and sharing rules that also work in favour of labour, for example where union involvement actually leads to an increase in the available surplus, a possibility raised in Sections 4 and 5. For example, it is easier for management to empower workers to make decisions when bargaining is local. And there is a well-established trend in both the UK and the US toward a form of 'shared capitalism', whereby both workers and management share financial risk as well as rewards and decision-making authority (Freeman, 2000).

Moreover, from the viewpoint of aggregate wage and employment levels, local bargaining

may have a less deleterious effect than does intermediate-level bargaining, as we discussed in Section 6. But as stressed there, such an effect is likely to be of limited magnitude.

Finally, local bargaining might also encourage union executives to make procedures more democratic and responsive to the wishes of the rank-and-file membership - a goal that the democratic countries of Europe must surely applaud. Such a development might also restore disaffected members to trade unions. However, this decentralised scenario does not fit with developments in Brussels, nor is it attractive to consensual social pact Europeans, many of whom favour the co-ordinated consensual social pact approach to social policy, of which industrial relations is one part. To this we now turn.

Scenario 2: National coordination despite lower unionisation

As we have discussed, coordination through social pacts and consensual norms has been an important feature of wage bargaining in several EU countries in the run-up to the EMU. This has occurred despite falls in unionisation and despite a tendency to conclude wage contracts at more decentralised levels. According to our second scenario for the future bargaining structure, this pattern could continue and even be reinforced in the coming years. This scenario would be very much linked to monetary unification. There may be a perceived need to make up for the loss of monetary policy autonomy in the EMU by making nominal wages more flexible. As discussed in section 6 of section 6, bargaining coordination may be seen as an appropriate means of achieving this. This may make it very tempting for governments to try to influence wage setting through concertation and social pacts. And both employers and unions may see the need to respond to this, especially when fiscal incentives at national level can be used for redistributive purposes.

The strength of the incentives for bargaining coordination and social pacts will depend on macroeconomic developments. If cyclical developments turn out to diverge strongly among the euro countries, and if – as we expect - fiscal policy proves to be an insufficient stabilisation policy tool in this situation, then it is likely that wage restraint through coordinated action may

come to be seen as a necessary means of stabilising recession-struck economy. However, the scenario does not necessarily presuppose that large macroeconomic imbalances actually occur. There is a widespread fear that giving up domestic monetary policy as an instrument is *potentially* dangerous. The mere uncertainty on the macroeconomic consequences of the EMU – and the risk of very large imbalances at specific occasions – may imply a *precautionary motive* for this type of coordination.[88] It will be much easier to achieve coordinated wage restraint when it is needed, if there is a degree of coordination also in more normal times. Since such coordination efforts have already been undertaken in several countries in recent years, it may therefore be perceived as natural - and efficient - to continue these as a stand-by measure for the future. Other countries may want to enter into similar procedures. The agreement in Sweden in 1997 of a new framework for bargaining within industry with the aim of securing international competitiveness could perhaps be interpreted as a preparation for future EMU membership (Elvander, 1999). So could the establishment of a government mediation institute this year, as it coincides in time with a decision in principle of the governing social democratic party that Sweden should join the EMU.

An interesting example of how a specific type of bargaining coordination can be used as a "stand-by facility" to be used in a macroeconomic crisis is provided by Finland. It was widely conceived there that EMU membership entails a macroeconomic risk. As a response to this, so called *buffer funds* have been set up.[89] The background is a system where unemployment insurance and pensions to a large extent are financed by employer contributions that have been negotiated between unions and employer organisations. The idea is to raise these negotiated employer contributions above the disbursements for unemployment benefits and pensions in upswings. The additional proceeds are put in buffer funds which are to be spent in recessions in order to prevent contributions from then having to be raised. The buffer funds are controlled by the central labour market organisations.

The Finnish system has been devised to smooth fluctuations in wage costs over the business cycle. A more ambitious system could instead aim at *lowering* wage costs in deep downswings (Calmfors, 1998 and 2000). This would amount to establishing an *ex ante* machinery for cuts in

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[88] See also Visser (1997). Th.e reasoning has some similarities with the precautionary motive for labour-market reform advanced by Calmfors (1999).

money wage *costs* without having to cut money *wages.* For such a system to work best, it should probably be reserved for extreme recessions, in which ordinary wage adjustments cannot be expected to be large enough: if the system is used regularly in the case of normal business cycle fluctuations, there is the risk that it has little effect because the incentives for normal variations in money wage growth are reduced.

Another incentive for national bargaining coordination is that the common monetary policy in the EMU may not work as an effective deterrent to excessive wage increases, as we discussed in section 6. Trade unions in individual EMU countries will not restrain wages because of any fear that wage increases on their part will trigger interest rate reactions by the ECB: they will all be too small to affect the behaviour of the ECB. For this reason, there may be an incentive for national coordination in one form or another as an alternative way of promoting wage restraint, as has been argued by Holden (1999). The recent attempts at providing a new mechanism for coordination in Germany (Bundnis fur Arbeit) might perhaps be interpreted in this vein as an attempt to find a substitute for the earlier policy game between the Bundesbank and the unions. In the scenario we have sketched, there will be large built-in tensions. To the extent that there is decentralisation of actual bargaining levels, coordination costs will increase. And if there is a trend towards lower unionisation and coverage of union contracts, it will become more difficult to maintain a high degree of cooperation, as cooperation will produce more favourable results the more employees that are encompassed (Holden & Raaum, 1991). But there may also be factors working in the opposite direction. In a situation when union influence and presence are threatened by membership losses, unions may see coordination arrangements with governments as a way of legitimising their existence. This is, however, likely to work only up to a point. Such equilibrium will be unstable, as it could easily break down if the level of unionisation and coverage of collective agreements fall below a critical level.

Another long-term threat to national coordination is likely to be provided by the internationalisation of product and labour markets, which tends to liberate companies from their historical national roots. As a consequence, national governments will have less leverage to cajole companies into accepting a joint policy. Increasingly, national frames of reference - as in a

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[89] The system is described in Boldt (1997), Holm *et al.* (1999) and Pochet (1999b).

national wage policy that is developed for the sake of the national interest or social solidarity - may lose their economic, political and moral relevance for the strongest players in the economy, that is, firms that are already strongly internationalised. This puts greater strains on central organisations of employers and unions where they try to define national guidelines for policy.

Moreover, to the extent that a common currency makes cross-national differences in wages and labour costs more transparent, there may emerge new comparability ('equal pay for equal work') pressures on union leaders, which will complicate their task to legitimate wage policies inspired by notions of national interest and social solidarity. The greatest pressure will probably be felt among workers in similar occupations and firms in neighbouring countries (with the lowest barriers of language and smallest travel distances). Will union leaders be willing and able to prevent their members, especially those employed in multinational companies, from insisting on equal pay - in the much more comparable common currency - with workers in high-wage and high productivity economies. In a longer-term perspective this may also make national coordination of wage bargaining much more difficult.

Scenario 3: Bargaining coordination at the European level

Our discussion above leads naturally to a discussion of the possibilities of increasing coordination of wage bargaining at the European level. This represents our third scenario. One can point to a number of factors that could influence such a development.

A first factor is *product market integration*. As emphasised in Section 4, product market integration may have complex effects. There may be forces working both in the direction of more and less competition. The incentives for unions to cooperate transnationally will in general depend both on how the total rents to be captured are affected by product market integration and on how it affects the relative bargaining position of unions. To the extent that more competition between firms in different EU countries is promoted, there will be a tendency for the bargaining power of unions relative to employers to weaken, as wage increases in one country will lead to large losses of market shares and thus of jobs. A natural response of unions could be to cooperate

across borders at the sectoral level in order to lessen the bargaining constraint that is otherwise imposed by international competitiveness constraints. This would be the same driving force that has led to industry-level bargaining within nations.

This argument seems to play a role especially among German trade unions (Bispinck & Schulten, 1998). There appears to be a worry that national attempts to achieve wage competitiveness will lead to a reduction in labour's share of national income. Some small steps in the direction of developing a European strategy for wage bargaining (a joint code of conduct) have also been taken within the European Metalworkers' Federation (Hege, 1999).

As we suggested under our first scenario, another factor working in the direction of more European coordination is related to the EU as an actor. The Maastricht and Amsterdam Treaties (1993, 1997) have squarely placed Europe's social partners—unions and employers—on the list of EU institutions (Falkner, 1998). How does this so-called 'social partnership' work? With the Social Protocol and its agreement on Social Policy of the Maastricht Treaty (1993), the EU member states established a new institutional framework for consultation and coordination, with two important features (Keller and Sorries, 1999). First, firms and labour - the 'social partners' - were given not only the right to be consulted, but also to negotiate and sign framework agreements which can become binding under European law. While any such negotiations are taking place, - the 'social dialogues' - the commission postpones its own negotiations. Should the social partners reach an agreement, the commission withdraws its own negotiations in favour of the social partners. Second, the EU's remit was extended to include matters such as working conditions, and qualified voting was introduced in certain areas (such as health and safety, information and consultation of workers) instead of unanimity. The Social Protocol later became, with little change, the Social Section of the Amsterdam Treaty (1997), which now included the UK following its decision to end its 'opt-out' policy.[90]

Bargaining events in Brussels have also turned ETUC from a privileged participant into a monopolist with co-decision powers. While the Single Market (1987) and EMU (1999) have

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[90] See Keller and Sorries (1999: Table 1) for details of which Directives have arisen from the social dialogue, and which from the Commission's initiative.

arguably contributed to the erosion of union power at the national level, the most important contribution of the 'social partnership' at the European level has been to restore the legitimacy and credibility of trade unions. Unions have not regained in Brussels the power they lost at home. But national trade unions through their joint efforts of institution-building and social partnership at EU level, have been able to draw on resources and engage in processes of mutual learning that have helped to create new roles.

A third factor that might encourage unions to coordinate collective bargaining across national borders is the europeanization of monetary policy. Section 6 stressed how the earlier policy game between the Bundesbank and unions in Germany is likely to have contributed to wage restraint in the whole ERM area, and that this restraining force may disappear in the EMU. Put differently, the *de facto* decentralisation of wage bargaining relative to monetary policy means that the monetary policy reactions to wage settlements will no longer be internalised. This may provide an incentive for unions to try to re-establish the earlier game at the European level by coordinating their wage settlements. Such a development might be stimulated by the so-called Macroeconomic Dialogue within the framework of the Employment Pact, which was established by the EU in 1999. The dialogue provides an arena where European-level union and employer representatives will regularly meet with the ECB (and the Commission and EU ministers of Finance) to discuss macroeconomic issues. Transnational bargaining coordination would make unions a more "equal" partner to the ECB in this context.

There are thus factors working in favour of more coordination among unions at the European level. But we still find it very unlikely that we shall see a far-reaching development in this direction. Below we shall discuss the prospects for (1) a central unified system of industrial relations at the EU level; (2) coordination with respect to specific issues that are subject to decision-making at the EU level; (3) transnational coordination at the industry level; and (4) more informal coordination via pattern bargaining.

Prospects for a Central Unified System of Industrial Relations

Looking first at the possibility of a central unified system of industrial relations within the EU with a pan-European union organisation responsible for actual bargaining, or for coordinating bargaining in different countries, we find this highly improbable. The coordination costs would be huge. Moreover, this will become even less feasible in the medium term as membership of the European Union is expanded to include more countries, which will increase the diversity of membership. A further obstacle is that trade unions play a significant role in many European countries in managing heterogeneous national social insurance systems. Thus a double hurdle would have to be crossed to achieve a central European system of industrial relations – convergence of social insurance systems, and centralisation of trade union activities – unless the link between unions and social insurance were to be broken. Such an outcome is highly unlikely.

Prospects for coordination with respect to specific issues that are subject to decision-making at the EU level

It is more probable that there could be coodination when it comes to issues encompassed by the 'social dialogue'. The European Commission has tried to obtain the co-operation of the social partners and supra-national institutions to widen the applicability of the legal provisions of the Social Protocol. However, there are large obstacles also to a high degree of coordination when it comes to such issues. National actors are unwilling to lose autonomy to the supranational level, which is viewed as suffering from a weak institutional structure (Keller and Sorries, 1999). There is also a strong resistance from the employer side. The introduction of qualified majority voting has meant that one or more governments can be over-ruled by the majority, which is likely to provide an impetus to trade unions and employers' groups to co-ordinate their lobbying at the European level. Such coordination will be necessary, in order to persuade a sufficient number of governments of their arguments, and thereby form a majority (Hornung-Draus, 1998). This is not a straightforward procedure, and is likely to be enormously costly. [91]

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[91] It is also important to consider the distinction between the conclusion of collective agreements and their implementation. It is interesting that the social protocol allowed the EU framework agreements to be implemented either by Community legislation or by collective bargaining covering the entire workforce via the Social Partners. A problem with the latter is that there are not high levels of coverage in all

Prospects for transnational coordination at the industry level

Another possibility is transnational coordination only across industry unions in sectors that are exposed to strong intra-EU competition, such as the metal industry. The prospects for this may be greater than for more large-scale coordination, but the obstacles will be very large here, too. First, bargaining institutions in various countries have developed over very long time periods and in diverse ways, and are characterised by a large amount of inertia. Second, the costs of transnational coordination will be very substantial at the industry level, too. Union-employer relations, bargaining arrangements, the norms that guide wage demands and settlements, the structure of unions and traditions of government involvement differ fundamentally between countries. As pointed out by Pochet (1999c), the main effect of more transnational exchanges between unions is likely to be that they become more aware of how different they are. Third, unions have been lagging far behind other areas in the internationalisation process. Less knowledge of foreign languages among (especially blue-collar) union representatives is likely to be an important obstacle for many years to come. Fourth, the gains from transnational coordination at the industry level in the EU will be reduced to the extent that competition comes from outside the EU.

Prospects for more informal coordination via pattern bargaining.

A final possibility is transnational coordination through a system of *pattern bargaining*. This will involve much lower coordination costs than formal cooperation. But this, too, is likely to run into large difficulties. Pattern bargaining will be much more difficult to achieve at the European than at the national level, because each union is very much smaller compared to the total labour market. Another obstacle is the need to agree on a wage leader. German unions – *viz.*

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member states. Thus a collective agreement would have to be extended to unorganised workers and firms, by erga omnes provisions . In ten of the sixteen countries public authorities can 'extend' collective agreements between unions and employers to non-organised firms.

the IG Metall – is the natural candidate, and also appears to strive for such a role (Hege, 1999). Such German wage leadership might be natural to accept for unions in Austria, Belgium and the Netherlands, where comparisons with German wage developments have traditionally played an important role. But unions in France, Spain and Italy – not to mention the UK – may oppose being dominated by German unions (Burda, 1999). And German unions themselves may have great difficulty convincing their rank-and-file membership that they should take into account European rather than national conditions when formulating their wage demands. The declining importance of the traditional manufacturing sector with its strong unions also makes it much more difficult for a union such as IG Metall to take on the role of wage leader.

Our overall conclusion is that the obstacles for coordination of wage bargaining at a European level seem formidable. This certainly applies to a pan-European system of bargaining, but we also find it hard to believe that transnational coordination at the industry level or a system of pattern bargaining at the European level will develop within the foreseeable future. There may be coordination with respect to specific issues relating to EU decision-making, but otherwise we expect transnational union coordination over at least the next twenty to thirty years to be confined more to non-committing declarations and exchange of experiences rather than to actual bargaining behaviour.

Scenario 4: A combination of decentralisation with some transnational cooperation

Our discussion so far leads naturally to our fourth scenario - a combination of Scenarios 1 and 3 – in which decentralisation to the firm level is combined with transnational cooperation of trade unions within large transnational firms. Why might such a development occur? One answer is that it provides a way for unions to defend themselves. National trade unions engaging with transnational firms will increasingly find it natural to cooperate, in order to strengthen their bargaining position vis-à-vis the transnational firms (who can threaten relocation of production

into other countries). The result would be a system with more decentralisation to the firm level, but - to the extent that firm have production units in several countries - more transnational coordination between unions. Of course this scenario is not likely for domestic firms producing services and non-tradable goods. But for these domestic firms bargaining is anyway increasingly likely to be decentralised to small units within a given country, as sketched out in our first scenario. We now develop our basic argument in more detail.

In Section 4, we argued that product market integration might to lead to an increase in the bargaining power of firms relative to trade unions. If increased product market competition among countries sufficiently reduces the power of unions relative to employers, unions may be too weak to cooperate across borders at the sectoral level in order to prevent national attempts to achieve wage competitiveness leading to a reduction of labour's share of national income. Under such conditions, large multinational companies may force decentralised bargaining onto an increasingly powerless workforce.

In Section 4 we also noted that product market integration may result not only in more trade, but also in increased foreign direct investment (FDI), which may occur not only in order to increase profits but also to achieve strategic labour market objectives. Having production units in a variety of countries can increase the bargaining power of firms, which might then credibly threaten to shift production during industrial disputes. Product market integration may facilitate the possibility of firms strategically placing various production units in different European (and other) countries, in order to weaken organised labour. This could have the effect of weakening union power, and ultimately leading to more decentralised wage bargaining.

Such strategic positioning of production units is less likely with many services. Here firms need to locate close to the consumer of the service. Traditionally, unions have tended to be less well organised in service industries than in manufacturing, though there is evidence that this is

changing.[92] The geographically tied nature of service industries (with the exception perhaps of business services) may enable unions to develop membership and organisation in these industries more effectively than in increasingly foot-loose manufacturing industries.

If product market integration does lead to a shift in bargaining power away from unions and towards firms, then we are likely to see a shift to the level of bargaining that most suits firms. If firms have all the power, they are able to pick the bargaining level that not only affords them the most profits or 'surplus' but also maximises the probability that they will maintain a large share. Sometimes these goals may coincide with bargaining arrangements and sharing rules that also work in favour of labour, for example where union involvement actually lead to an increase in the available surplus. Heterogeneity of firms is likely to translate into heterogeneity of bargaining levels. Unions may react to such a development by mobilising to avoid weakening of union power. Such mobilisation may occur at the transnational level or at the local level, in response to both the anticipated costs and benefits of such coordination. The costs and the benefits of coordination have already been referred to in our discussion of the first and third scenarios, and will not be repeated here.

The institution of works councils is of particular interest since- as noted above -pan-European cooperation among unions is likely to be difficult, and perhaps impossible in the short to medium run. Because European Works Councils are standardized and institutionalized networks of employees across borders, they represent a new potential coordination mechanism in transnational firms.

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[92] At the present time five German service-sector unions are discussing combining to form a new 'super union' – ver.di, which would be larger than Europe's present largest union – IG Metall.

How likely are the various scenarios?

Our discussion of possible scenarios has made it clear that the future industrial relations systems in the European economies will be the outcome of a complex set of influences. As there are conflicting forces at work, it is not evident how the future bargaining system will evolve.

However, our assesment is that the forces working in the direction of decentralised bargaining at the level of the firm or work place are very strong. Lower unionisation, increasing importance for smaller and medium-sized firms related to the service sector, greater heterogeneity among both firms and employees and a trend towards more local pay incentive systems all provide strong incentives for such a development. The move towards decentralisation is likely to be driven by the employer side, with unions mainly having to adapt to a new situation.

But at the same time, monetary unification in Europe creates incentives for more of national coordination as a means of substituting nominal wage flexibility for monetary policy autonomy. In a setting where the levels at which formal bargaining occurs are being decentralised, such coordination is likely to be of a more informal character within social pacts of the type that have occurred in several European countries in recent years. The extent of such national coordination efforts will depend on the actual macroeconomic developments over the coming years: the more asymmetric are macroeconomic developments, the greater will be the incentives to move in this direction.

In the end, however, there will be strong contradictions between any such attempts at national coordination and the likely development towards lower unionisation, less coverage of union contracts and decentralisation of formal bargaining levels. This could lead governments in some countries to attempt more traditional incomes policies, actually legislating about wage changes (as has occurred in recent years in Belgium, and sometimes in Denmark and Norway, where there are institutions for compulsory mediation) in acute macroeconomic crises. But in a long-term perspective, it may prove impossible to achieve the kind of national coordination of wage bargaining that has earlier occurred in many European countries.

Increased European integration could provide another challenge to national coordination by weakening the national ties of both unions and employers. We do, however, see formidable

obstacles to more formal coordination of wage bargaining at a European level. This conclusion certainly applies to any attempts at pan-European coordination across sectors, but it also applies to transnational coordination within sectors. The coordination costs will just be too large. There are, of course, greater prospects for coordination with respect to specific issues that are subject to decision-making at the EU level, where the social partners have been given the right to sign agreements that can become binding under European law. This may be quite important, because it will affect the design of important labour market institutions and thus influence overall wage costs and employment. But it amounts to much less than coordination of wage bargaining in general. It is likely that we will be seeing a number of declarations by unions about transnational coordination, but it is difficult to believe that these will have much practical relevance for a long time to come.

Over the longer term, the most probable development may well be our scenario 4 - a combination of decentralisation and transnational bargaining within transnational firms. It may over time become natural for unions in production units in different countries within large transnational firms to cooperate, in order to strengthen their bargaining position towards the employer. The motivation would be to counter the threat of the employer to move production to the most low-cost unit. The European Works Councils may serve as vehicles for transnational bargaining of this type by creating standardised and institutionalised networks of employees across borders, which reduce coordination costs. This could add a force, this time on the union-side, working towards disintegrating national industry agreements and against norms of national solidarity.

In vertically integrated transnational firms, unions will not have the same interest in transnational coordination at the firm level. But here it will be in the interest of the employer to try to bargain simultaneously with labour in different production units in order to avoid having to 'divide the pie' several times with labour.

So in the long run, a development towards a mixed system of decentralisation of bargaining to the firm level and transnational coordination within increasingly important transnational firms may be very probable. Such a development will, of course, take time. And it may in the end make national coordination of wage bargaining very difficult to achieve. The scenario that we have

sketched represents an alternative way towards transnational union cooperation than the one that is usually discussed. But it may be more realistic to build such cooperation from the bottom-up rather than from the top-down.

How should one evaluate a development of the type that we have sketched?

One likely benefit is that decentralisation will have positive effects on productive efficiency by allowing greater adaptability to local conditions and greater possibilities of constructing effective incentive systems. But there are also risks. The empirical literature on bargaining coordination suggests that one risk is that reduced national coordination may contribute to higher aggregate real wages, and thus have adverse employment effects. This points to the importance of designing other labour market institutions so that they promote employment: unemployment insurance, well-functioning education systems, active labour market policy and tax policies.

What will decentralisation of wage bargaining mean for the role of unions in society? The answer depends on how well unions can adapt to changed conditions. One would expect it to become more difficult for unionism to act as a political and social movement. Instead, functions such as providing services to members, protection of individuals against unfair treatment by the employer, and forming "productivity coalitions" with employers may turn out to be the main functions of trade unions in the 21th century. In a changing environment, unions will have to define new roles if they are to survive.

7.3 Final Remarks

A theme of our report is that union presence and union influence are shaped by a complex set of inter-related factors involving politics, history, social policy and economics, inter alia. At any one point in history, conditions may be more or less favorable to unions, and union influence may be in decline as a consequence. Unions, however, are typically not passive agents: they are

organisations that respond and adapt to change. A corollary of this argument is that there is no simple determinant of union bargaining power. It is unlikely that technological change of itself will render unions in Europe irrelevant. Similarly, whilst the legislative environment is an important influence on union organisation and union behaviour, an understanding of unions and of their prospects requires an understanding of the historical and economic origins of unions. Most important, the question of what kind of future there might be for European unions - and the related question of how European legislation should shape the environment in which unions operate – requires us to ask the more basic question of whether workers in Europe in the coming years ahead will continue to benefit from collective organisation rather than representing themselves individually when negotiating with their employer. We have identified various pressures that threaten this role of unions, but have also pointed to a number of countervailing forces that promise unions new opportunities as well as new challenges.

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