Trade Union Density in International Comparison

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Trends in unionisation

Due to globalisation, structural change, the trend to individualism, new information and communication technologies and demographic changes, labour unions have increasingly come under pressure (Funk 2003). This study will show that union membership declined not only in Germany but also in other OECD countries. It will then identify economic and institutional factors that influence the development of trade union membership.

International comparisons of labour union power focus on union membership in relation to the total labour force (union density). This allows for differentiation between gross and net union density rates. The gross density rate is defined as total union membership including the unemployed, students and retired workers as a share either of all wage and salary earners in employment or of the civilian labour force, which includes the unemployed. The broader definition shows a more realistic picture of the labour unions' representation in the workforce. However, the higher the number of unionised retirees, the more distorted is the density rate. To avoid this, we focus on the net union density rate, which is calculated by dividing net union membership (total membership less unemployed and retired) by the number of active wage and salary earners. This method delivers the best estimate of the labour unions' representation in the workforce.

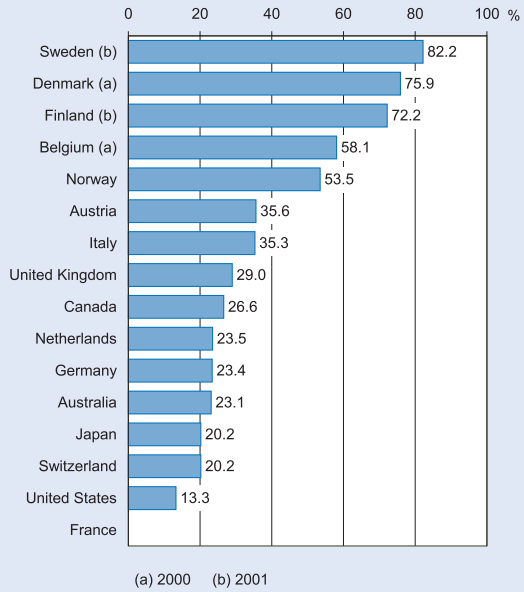
We then have to decide which sources to use. The first method for calculating union density rates uses publications of the individual unions. Because this information usually provides no figures on retired or unemployed members, their share in total union membership has to be estimated. Some labour unions like the French unions do not regularly publish membership statistics. This means extrapolating from older statistics. Italian trade union statistics only include the three biggest organisations but no independent or non-affiliated unions. This leads to an underestimation of total union membership by 10 to 20 percent (Visser 1991, 99).

The second method of data compilation is based on household or labour force surveys. It has clear advantages when the purpose is to calculate and compare net union density rates or unionisation by industry branch, occupational group, gender or other workplace characteristics. But only the Anglo-Saxon countries, Finland and Germany provide historical data at this detailed level. In addition, they often skip years or are only available for specific periods. We use panel data where possible and estimate missing values by utilizing national trade union member statistics. Historical statistics are from the trade union handbook published by Ebbinghaus/Visser (2000), which provides membership data for EU member countries (with the exeption of Greece, Luxembourg and the Central and Eastern European accession countries), Norway and Switzerland. Another source is an online database supplied by Golden/Lange/Wallerstein (2002), which not only contains data on West European countries but also on Australia, Canada, Japan and the United States. Because all statistics end in 1998 or before, more recent data were gained by our own calculations on the basis of national statistical yearbooks, data supplied by the trade unions or the International Labour Office (ILO) and labour force surveys. Taking this into

Figure 1

Net Union Density Rates in 2002

Employed union members in percent of wage and salary earners



(a) 2000 (b) 2001

Sources: Author's calculations based on ILO, OECD, national statistical yearbooks, labour force surveys and union data.

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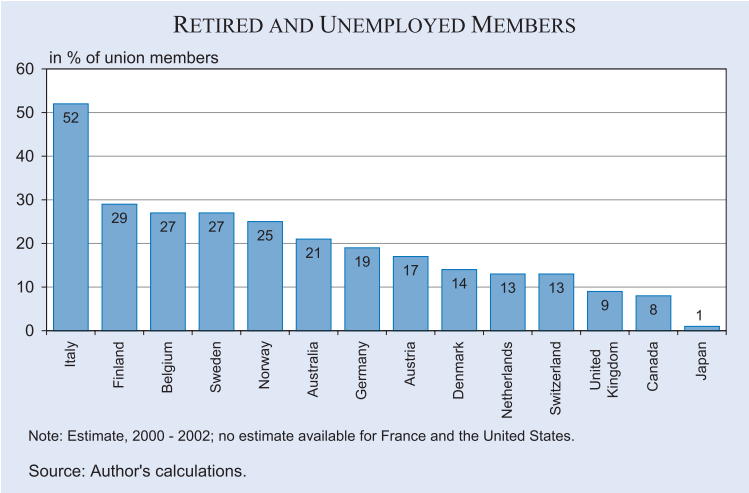
account, the following comparison of unionisation is a rough estimate, not a precision landing.

Figure 1 shows net union density rates in 2002. On the top of this ranking we find the Scandinavian countries Sweden, Denmark and Finland whose union density was between 72 and 82 percent. At least every other worker in Belgium and Norway and approximately every third worker in Austria, Italy, the United Kingdom and Canada was a union member. Germany's density rate of 23.4 percent was below average but above that of Japan, Switzerland and the United States (13 to 20 percent). France ranks lowest (10 percent).

Figure 2 shows the share of retired and unemployed union members as a percentage of all union members. It varies considerably among OECD member countries. In Japan, Canada and the United Kingdom it is less than 10 percent, in Italy over 50 percent. Norway, Sweden, Belgium and Finland also have a high share of inactive union members, ranging from 25 percent in Norway to 29 percent in Finland.

Figure 2



Note: Estimate, 2000 - 2002; no estimate available for France and the United States.

Source: Author's calculations.

Table 1

Net union density rates 1961 to 2000*

	1961/1970	1971/1980	1981/1990	1991/2000	Maximum value	Year of maxmimum value
Australia	45.6	46.2	44.3	32.4	47.9	1960
Belgium	40.6	50.8	50.6	53.1	58.1	2000
Denmark	61.3	69.1	76.8	76.6	79.5	1994
Germany	32.9	34.1	33.9	29.1	35.9	1991
Finland	40.0	64.5	70.2	77.2	79.6	1995
France	20.1	21.0	13.8	10.5	22.2	1969
Italy	28.0	46.9	43.0	38.7	50.5	1976
Japan	34.1	32.5	27.5	23.3	34.8	1964
Canada	27.0	31.8	32.8	31.8	33.7	1992
Netherlands	39.1	36.6	27.7	24.5	41.7	1960
Norway	51.5	52.1	55.5	54.8	56.4	1990
Austria	58.3	52.7	50.4	40.6	60.0	1960
Sweden	66.4	73.4	81.5	85.9	88.6	1998
Switzerland	33.5	31.1	27.9	23.2	37.0	1960
United Kingdom	40.9	47.6	40.8	32.5	50.1	1979
United States	26.9	22.9	18.2	14.8	29.4	1960
Average	40.4	44.6	43.4	40.6	46.0	1978
Standard deviation	13.4	15.8	20.0	23.0	23.5	1995

* Note: Employed union members in percent of wage and salary earners; ten-year average.

Source: Golden/Lange/Wallerstein (2002); Ebbinghaus/Visser (2000), ILO, OECD, national statistical yearbooks, labour force surveys and union data.

In Germany, one in five union members was retired or unemployed.

Because data for 2001 and 2002 are lacking for some countries, the comparison and the following analysis ends in 2000. Table 1 shows the development of net union density rates between 1961 and 2000. There were ten-year average gains in the „Ghent countries“ (Belgium, Denmark, Finland and Sweden) with periods of stagnation in Belgium in the 1980s and in Denmark in the 1990s. Some gains also occurred in Canada and Norway during the 1970s and 1980s, but discontinued during the 1990s. In the other ten countries which provide full data, union density fell: Unsteadily in Germany, France, Italy and the United Kingdom, where membership increased during the 1970s, but steadily in Australia, Japan, the Netherlands, Austria, Switzerland and the United States. The decline in unionisation was particularly pronounced in Australia and the United States.

The unweighted average of union density rates rose in all countries between the end of the 1960s and the end of the 1970s. Thereafter unionisation fell steadily, with a short interruption during the early 1990s, when four million east German union members joined the Federation of German Trade Unions (Deutscher Gewerkschaftsbund). Since the mid-1990s, the long-term trend of declining unionisation has continued, reaching an average density rate of 38.4 percent in 2000 compared to 46 percent in 1978. Table 1 also presents the development of the standard deviation which confirms the trend of growing heterogeneity in membership development.

Why employees join a union

Before analysing the causes of divergent unionisation trends, we should answer the question why employees join a union. Unions claim responsibility for higher wages, shorter working time and better working conditions, thereby supplying collective or public goods. Because employers often do not make a distinction between union and non-union members, the individual employee has little incentive to join a union. By opting against membership, the individual can save the membership fee and still enjoy the collectively agreed minimum standards. To solve this free-rider problem, Olson (1965) suggests either compulsory membership, which is the case in a closed shop in which union membership is a condition of employment, or selective incentives in the form of private goods and services (insurance, seniority rights) for union members only. The “social custom” theory of union membership (Booth 1985; Visser 2002) considers selective incentives unnecessary, if belonging to a union provides reputation gains, while non-union membership creates reputation losses. If workers directly derive utility from belonging to a union and not being an outsider, we can assume that workers are more prepared to join a union if others also join. If a union achieves a critical minimum density and thereby assures that the reputation effect works, a union can exist despite the free-rider problem.

These theoretical explanations do not directly explain the heterogeneous trend in unionisation. But we know that the free-rider problem already existed in times of rising membership. We can therefore conclude that falling membership is caused by an insufficient supply of selective incentives or by decreasing reputation gains from union membership. The latter explanation could be based on a changing employment structure. The share of production workers in percent of all employees has declined, while the share of service workers has increased. Especially classical union domains like mining and the iron and steel industries have lost jobs, whereas employment expanded in union-free areas like the information and telecommunication industry. Thus union membership growth is determined not only by institutional factors but also by economic developments. Acknowledging this, the empirical literature differentiates between cyclical, structural and institutional factors (Ebbinghaus/Visser 1999, 136).

Explanations of fluctuations in union membership

The cyclical approach links membership changes to the business cycle, in particular to inflation and unemployment (Schnabel, 2003, 20 ff.). Rising consumer prices threaten the employees’ standard of living. They join a union in order to defend their real wages. Unemployment affects union growth negatively by strengthening the relative bargaining power of employers. Yet its effects on the decision to join a union are ambivalent, depending on the organisation of unemployment insurance: If union-affiliated institutions administer unemployment benefits (Ghent system), we can expect a positive relationship between rising unemployment and the willingness to join a union. Unions can make eligibility for unem-

Table 2

Net unionisation, cyclical and structural indicators

	Change from 1971–1980 to 1991–2000 (in percentage points)				
	Net unionisation	Inflation	Unemployment	Share of industry employment	Share of part- time employment
Finland	12.7	-4.9	8.5	-7.6	2.1
Sweden	12.5	-2.6	4.5	-9.4	-0.4
Denmark	7.5	-4.0	3.4	-6.1	-1.7
France	7.1	-3.8	7.1	-11.8	6.1
Norway	2.7	-2.0	2.9	-10.2	0.8
Belgium	2.3	-2.6	4.1	-12.7	9.3
Canada	0.0	-2.7	2.5	-7.5	7.1
Germany	-5.0	-1.6	5.8	-9.2	2.9
Switzerland	-7.9	-1.5	3.4	-14.7	n.a.
United States	-8.1	-2.7	-0.8	-7.7	0.1
Italy	-8.2	-5.0	4.5	-4.9	4.3
Japan	-9.2	-4.8	1.6	-2.7	7.3
Netherlands	-12.1	-3.3	2.3	-11.8	15.7
Australia	-13.8	-3.6	4.5	-10.8	10.3
United Kingdom	-15.1	-5.9	4.0	-12.8	n.a.
Austria	-20.3	-2.2	2.1	-8.2	3.5

n.a. = not available.

Source: Author's calculations based on Lesch (2004).

ployment benefits difficult for non-members and decide about reasonableness criteria, i.e. which jobs an unemployed worker has to accept in order to sustain his claim for unemployment compensation. Thus, a combination of voluntary unemployment insurance and union membership can influence union membership positively in times of rising unemployment as was the case in Finland and Sweden during the first half of the nineties. If, one the other hand, unemployment insurance is mandatory and administered by the government, we can expect a negative relationship.

Table 2 shows the development of net unionisation and different economic indicators since 1971, the first year of full data availability. Let us first look at the cyclical factors, the inflation and unemployment rates. From 1971–1980 to 1991–2000, the average rate of inflation declined in all countries while net unionisation declined in most of them, thus indicating a weak linkage between membership and the business cycle. Exceptions are Canada, where the density rate remained unchanged, Norway and the four countries with union-administered unemployment insurance systems (Belgium, Denmark, Finland and Sweden), in which unionisation increased. Though some countries successfully lowered their unemployment rate during the 1990s (e.g. the Netherlands, the United States and the United Kingdom), the average unemployment rate increased between the 1970s and the 1990s in all countries except the United States. This development supports the thesis that rising unemployment reduces the incentive to join a labour union in countries with mandatory state-organised unemployment insurance systems and boosts unionisation in the Ghent countries.

The two other indicators take the change in the employment structure into account. While the share of industry employees in total employment has declined, that of service sector employees has grown over the past 30 years. At the same time, the share of blue-collar workers in relation to all workers declined, whereas the share of women and part-timers increased. White-collar workers and women are not so easily unionised as blue-collar workers and men. Part-timers are often viewed as "atypical" employees and are not recruited by the unions (Calmfors et al. 2001. 24 ff.; Schnabel/Wagner 2003, 223); Beck/Fitzenberger 2003, 12 ff.). Theoretically, this structural change should affect union density negatively: A declining share of industry employment and/or a rising share of part-time employment induces a declining rate of unionisation.

As Table 2 shows, structural change occurred in all countries. Since the 1970s, the share of industry employees in relation to total employees declined by 15 percentage points in Switzerland, 12 to 13 percentage points in France and the United Kingdom, 9 percentage points in Germany and 3 to 5 percentage points in Japan and Italy. Union membership declined almost to the same extent. Only the Ghent countries and Norway resisted the structural change. Part-time employment developed in a similar way. The share of part-time employment increased in all countries except Denmark and Sweden and remained nearly constant in the United States. Since the 1970s, the share of part-time employees in total employment has increased 16 percentage points in the Netherlands, 10 percentage points in Australia, and 3 percentage points in Germany. Though union

membership frequently did not decline to the same extent, the numbers suggest a weak correlation.

Because cyclical and structural developments were similar in all countries, they cannot explain the differences in unionisation between countries. Institutional factors have to be taken into account as well. As mentioned above, the organisation of the unemployment insurance system is of special importance. Other relevant institutional factors are union access to the workplace, practices of enforced membership (in particular, the closed shop), dismissal protection laws, wage indexation or mandatory extension of collective agreements to non-unionised employers and workers. The legislative framework acts as a substitute for union-provided protection (Checchi/Lucifora 2002, 391). Following this interpretation, union density should be lower if worker protection is provided within a legislative framework.

The organisation of unemployment insurance

Most countries introduced their unemployment insurance system before World War II. One group of countries preferred a mandatory system administered by government agencies. A statutory unemployment scheme was introduced for British workers in 1911. Austria followed in 1920 and Germany seven years later. A second group of countries preferred a voluntary but publicly supported scheme administered by unions or union-dominated funds (Calmfors et al. 2001, 22). Norway (1938) and the Netherlands (1952) replaced the voluntary system with statutory regulation. Among the countries considered in this study, the Ghent system still operates in Sweden, Denmark and Finland. Belgium, which introduced the first voluntary, union-organised unemployment insurance in Ghent (hence the Ghent countries) in 1901, now has a mixed system. Unemployment insurance is compulsory and controlled by the state, but the unions participate in its administration.

The organisation of unemployment insurance is important because union- administered systems offer selective benefits to union members, although in principle every worker is welcome to join the insurance system without joining a union. However, insurance is often connected with union membership for two reasons: Unions can make it difficult for non-members to obtain unemployment insurance and unions control, or greatly influence, what is considered a "suitable job". Thus, individuals choose membership to gain better insurance conditions.

Union membership is also positively affected by institutionalised union access to the workplace because the workplace appears to be the main location to recruit new members (Ebbinghaus/Visser 1999, 143). Countries with substantial and long-standing access rights are the Scandinavian countries and Belgium. The countries with insignificant access rights – France, Switzerland, the United Kingdom and the United States – are all countries with a union density rate below average and strong membership losses (Scruggs/Lange 2002, 139). Practices of enforced membership like the closed shop, in which union membership is a condition of employment, have a long tradition in the United Kingdom, the United States and in Scandinavia (especially Finland). It has been estimated that closed shop arrangements covered a quarter of British employees in the late 1970s (Booth 1984, 254). But closed shops were restricted in the Thatcher era by various labour market reforms and finally forbidden by the Employment Act (1990). In the United States, the closed shop was already abandoned on the federal level by the Taft-Hartley-Act of 1947. It is likely that the changed institutional framework negatively affected union membership, especially in the United Kingdom.

The role of labour disputes

Finally, we assume a relationship between the number of labour disputes and unionisation. Strike affinity indicates the unions' willingness to enforce their claims. If they do not use their full power to enforce claims, they loose credibility and membership declines. Strictly speaking, we cannot add strikes to cyclical, structural or institutional factors because all of these factors influence the propensity to strike (Lesch 2002). For example, the necessity to authorise a strike by strike ballots or the prohibition of secondary strikes dampens strike activity. This is also true of sectoral structural change because the service sector is less strike prone than branches of industry.

Table 3 shows the development of labour disputes, measured as the number of working days lost by strikes and lockouts per 1,000 employees. After peaking in the 1970s, the average number of working days lost declined in most countries in the 1980s and

Table 3
Labour disputes: working days lost per 1,000 employees 1971 to 2000*
All industries and services

	1971/1980	1981/1990	1991/2000
Australia	646	308	108
Belgium	233	43	37
Denmark	264	173	171
Germany	52	28	11
Finland	682	369	136
France	284	113	78
Italy	1,461	544	130
Japan	115	8	2
Canada	879	473	189
Netherlands	35	17	18
Norway	48	101	97
Austria	10	2	4
Sweden	156	86	31
Switzerland	2	0	2
United Kingdom	572	291	23
United States	436	105	51

* Ten-year average.

Source: Author's calculations.

1990s. A comparison of labour disputes and union membership indicates a positive relationship between the change of net union density and the number of working days lost. In most countries we find a simultaneous change of both indicators during the 1980s and 1990s. A different development took place in the Ghent countries, Austria and Switzerland. But we should bear in mind that in the two latter countries labour disputes only play a minor role, so that we cannot expect a significant influence of labour disputes on the willingness to join a union.

Quantitative empirical evidence

Our descriptive findings are for the most part confirmed by multivariate regressions. For Western Europe, Blaschke (2000, 222 ff.) finds a positive effect of inflation and a considerable negative influence of unemployment on union density, but the causal relationship between unionisation on the one hand and inflation and unemployment on the other is not clear. As expected, a decline in industrial employment reduced union density. Changes in public employment (not considered in our descriptive analysis) also have a large and significant influence on changes in union density. The coefficient of strike activity is rather small and statistically insignificant. The analysis was completed by looking at institutional factors. Not surprisingly, the Ghent system exerts a large positive influence on union density, but statutory employee representation does not exert a positive influence. To summarise, the results suggest that a major cause of the decline in unionisation in most Wesern European countries was the change in the employment structure. Among the institutional variables, the recruiting assistance provided by the Ghent system had a large and stable influence. But there is also empirical evidence that the regulation of employment protection and benefit duration, indexation clauses and mandatory extension provisions all have a negative effect on unionisation (Cecchi/Luzifora 2002, 390).

Schnabel (2003, 20 ff.) summarises selected time-series studies of trade union growth. In most studies the key explanatory variables were price inflation, nominal wage growth, which both exert a positive influence on union growth, and the level and change of unemployment, which have a mixed or negative effect respectively. The growing labour force participation of women and the shift toward service sector jobs inhibit union growth. In order to explain cross-country differences with regard to the level and development of union membership and density, Schnabel (2003, 32 ff.) also discusses empirical results of cross-national analyses. Whereas Ebbinghaus/Visser (1999) judge cyclical and structural variables as insignificant and institutional factors as significant, Calmfors et al. (2001) and Visser (2002) confirm Blaschke's (2000) findings.

Because the quantitative comparative analysis ends in the mid-1990s, Lesch (2004) examines the determinants of changes in union density by utilising his updates of trade union membership statistics. OLS multivariate regression analysis is applied for the period 1971 to 2000 to all of the 16 OECD member countries described. The development of union density is the dependent variable. The explanatory vari-

ables include the lagged inflation rate, the unemployment rate, the shares of industrial, public sector and part-time employment (all in relation to total employment), the number of working days lost by strikes and lockouts per 1,000 employees and a dummy that reflects the degree of union authority over unemployment insurance. Overall, the signs of the coefficients were in line with expectations. Two results are notable. First, the coefficient for strike activity is small but statistically significant. Second, the coefficient of the share of part-time employment is positive. This result is surprising because the bivariate regression indicates a negative relationship. Microeconometric evidence confirms this finding (Beck/Fitzenberger 2003; Schnabel/Wagner 2003).

Conclusion

Overall, trade unions are successful if workers assign them a collective protection function and if union access to the workplace supports member recruitment by union representatives or works councils. Lacking these conditions, the power of trade unions diminishes as inflation declines and international competition increases. To recruit new members, trade union membership must be accompanied by a selective benefit or a gain in reputation.

Thus, unions have a limited potential to recruit new members. Selective benefits can only be offered on a limited scale, and in times of individualism unions cannot bet on "social customs". Much of the unions' future depends on the political management of reforms like the deregulation of the labour markets and the adjustment of the pay-as-you-go pension insurance systems to demographic change. If governments are able to reform labour markets and social security systems in line with employees' sense of justice, the trend of membership erosion will probably continue. On the other hand, the more employees get the impression that the reform burdens are distributed unequally, the stronger will be the social protest. Unions could benefit from this discontent. Across countries, unions presently oppose social reforms and demonstrate against them together with other protest movements. It is currently not predictable if this strategy will stabilise the unions' political influence or will even be a basis for the recruitment of new members.

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