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Wage rigidities, barriers to entry and the welfare state: Their impact on labor markets in industrialized countries

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Wage Rigidities, Barriers
to Entry and the Welfare State -
their Impact on Labor Markets in
Industrialized Countries

by

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"Particularly in these trying times it is necessary to keep the domestic markets - on all sides - free from (trade) restrictions. International trade must be able to fulfill its role in ... maintaining the competitive edge of our industries and in creating secure jobs"¹.

"Last year's increase in the minimum wage is evidence of our concern for the welfare of our low-income fellow citizens. Other legislative proposals ... will be particularly effective in improving the lot of the least fortunate"²,

I. Introduction

The above quotes exemplify quite well the strange world in which we live: on the one hand governments over the last 30 years have generally attempted to enact measures to liberalize international trade (and as a matter of fact the movement of factors of production) so as to be able to profit - in the form of higher employment levels - from a more efficient allocation of resources. On the other hand, in many of the same countries governments (and/or unions) have effected (or supported) measures for domestic labor markets, the impact of which runs counter to the expected gains from a reduction in trade barriers. In other words, while a rapid expansion of international trade may have contributed significantly to creating employment, measures affecting the training, employment, remuneration and/or social security of the working-age population may well have caused jobs or job opportunities to disappear or job-seeking activities to be otherwise structured.

To be sure, governments didn't institute such policies without having been forewarned about the possible negative employment effects they might induce. After all, for instance,

¹ Chancellor Helmut Kohl during ceremonies commemorating the twentieth anniversary of the German-French treaty on cooperation, Paris, January 21, 1983.

² Economic Report of the President, 1962, p. 10.

Stigler's classical 1946 article succinctly outlined the negative impact of minimum wages on employment and income levels of those supposed to be explicitly helped by such a measure. However, despite the empirical evidence most policy-makers (as shown by the above quote from the Economic Report of the President) have remained inflicted with social policy illusion and were thus convinced of the positive welfare effect they would induce.

Furthermore, in some cases rapid economic growth accompanied the introduction of measures impacting on the labor market - be they either influencing the demand for work (e.g. unemployment compensation) or the demand for labor (e.g. unions/minimum wages) - masked over their initial impact. However, as the expansion of economic activity slowed down, the adjustment to the new parameters began to become apparent - a situation aggravated in many countries by demographically and socio-economically induced increases in labor supply.

In light of the high unemployment rates already reached - generally the second highest this century (see Table 1) - and given the growth expectations over the coming years - it would seem to be a worthwhile task to review some of the measures introduced by modern welfare societies and affecting the labor market (either directly or indirectly), to attempt to locate areas where wage rigidities and/or barriers to entry can be eliminated to allow for a more efficient allocation of resources as well as a greater utilization. The paper is divided into three major sections, whereby the first section deals with general comments, the second with specific empirical evidence and the third with possible solutions to the problems expounded upon.

II. Distortions in the Labor Market - General Comments

Given the basic driving force - i.e. the competitive spirit - behind the workings of market economies, where it is as-

Table 1 - Unemployment Rates and Population Growth in Selected Countries 1900 - 1983

Country ¹		1900-1914	1924-1940	1950-1970	1971-1983
U S A	a	4.9	12.9	4.6	7.1
	b	8.0 ²	25.2 ³	6.8 ⁴	10.0 ⁵
	c	1.9	1.4	1.5	0.9
Germany	a	2.0	10.8	3.8	4.2
	b	5.1 ⁶	30.1 ⁷	10.2 ⁸	9.3 ⁵
	c	1.4	0.7	1.6	0.06
Great Britain	a	3.3	13.7	1.5	6.2
	b	7.8 ²	22.5 ⁷	2.6 ⁹	13.2 ⁵
	c	0.8	0.4	0.5	0.05

¹ a = average unemployment rate; b = highest unemployment rate; c = annual growth rate of population. The figures for 1983 have been estimated.

2 = 1908.

3 = 1933.

4 = 1958.

5 = 1983.

6 = 1914.

7 = 1932.

8 = 1950.

9 = 1970.

Source: Various national statistics.

sumed that households seek to maximize their utility, that firms seek to maximize their profits and where wages/prices are supposed to be flexible enough to signal relative shortage surpluses, policies and behavior which interfere with the functioning of this mechanism will cause employment problems to occur.

Where do these interferences come from? Since, as Schumpeter (1954, p. 270) pointed out, mass unemployment was virtually unknown in the middle ages, we are confronted with an outgrowth of modern civilization. That is, as economies have become increasingly complex and the immediate connection between the buyers and the sellers of labour disappeared, and as the time periods for intertemporal decisions lengthened so that exogeneous factors became more difficult to define, the probability that imbalances between the supply of and demand for labor would occur increased. Further increasing these probabilities - and this brings us to the specific topic of this paper - has been the establishment of institutions (e.g. unions and pressure groups) capable of imposing their interests on societies as well as the introduction of laws and regulations (e.g. welfare and tax laws) prompting the traditional societal pressures to give way to more individual utility aspects or inducing a reaction because governments have usurped areas beyond consensus delimitations (e.g. the underground economy).

If these considerations in general are relevant, then - as a starting point for the empirical evidence and before moving on to an examination of specific measures - it could well be hypothesized that - given certain macroeconomic parameters - employment problems will have tended to increase less in those countries where overall levels of interference have been the lowest. To examine this hypothesis data on six OECD countries (France, Germany, Great Britain, Italy, Japan and United States) have been gathered and plotted over time

(i.e. since 1960, whereby 1960 = 100). Employment problems are represented by unemployment rates. Interferences are not captured directly but rather assumed to be portrayed by three (not entirely independent) indicators. The first one is an index number based on a ratio between average wage per employee (including all fringe benefits) and average productivity per employee. It is expected that the degree to which governments and pressure groups were able to influence the enactment and spread of social and work-related benefits, these are picked up in the wage series. To the extent that productivity doesn't increase at a comparable rate it can be expected that employment levels will eventually be negatively influenced. The second indicator is supposed to capture the impact of government activities on the economy and is estimated by dividing total government outlays by GDP. It is assumed that the usurping of factors of production and financial assets causes a crowding out of private, more productive economic activities (at least from the official economy). Hence, over the longer run a positive correlation is expected between increases in levels of government activities and increases in employment problems¹. The third indicator is meant to capture the impact of the various measures and government activities on profit rates. It is assumed that the extent to which profits from private enterprises decrease vis-à-vis invested capital, the willingness of prospective entrepreneurs to invest in new ventures will likewise decrease. Thus new employment opportunities will not be forthcoming.

In addition to these indicators of interferences affecting the labor market three statistics portraying the overall economic environment are included. First of all, the growth

¹ In this connection it is assumed that it has exceeded some level below which government activities fulfill an essential function in increasing economic efficiency. For a discussion of the problems involved and impact over time see Glismann et al. (1983).

of the labor force reveals how many new jobs need to be created if - ceteris paribus - employment problems are not to increase. Second, the development of real GDP is shown to be able to relevel developments between countries. Third, the relative international competitive position - i.e. real effective exchange rate changes - has been included to attempt to point to the degree of shifts in this position¹.

The results of this exercise, which can be seen in Diagram 1, conform quite well with expectations, particularly if attention is paid to the trend in various periods as well as to the interconnection with the indicators of the overall economic environment². In comparing the United States with Germany for instance, one finds that employment problems have increased far less in the former than in the latter although in the U.S. the labor force rose by over 50% - in Germany it was virtually stationary. The answer can be found particularly in the interplay in the 1970s between the wage/productivity, profit rate and government share indices. In the U.S. the wage/productivity index remained flat in the 1970s but in Germany it increased by 30%. Profit rates in Germany sank from 1960 to 1975 and have recovered but little since then, but in the U.S. they were higher at the end of the 1970s than one or two decades earlier. As concerns the governments' share of GDP we find that it has increased considerably more in Germany than in the U.S. Additional negative impulses for Germany emanated from an increase in the effective real exchange rate changes (i.e. decrease in competitive position) while the U.S. even went through a devaluation, hence a positive factor for labor markets.

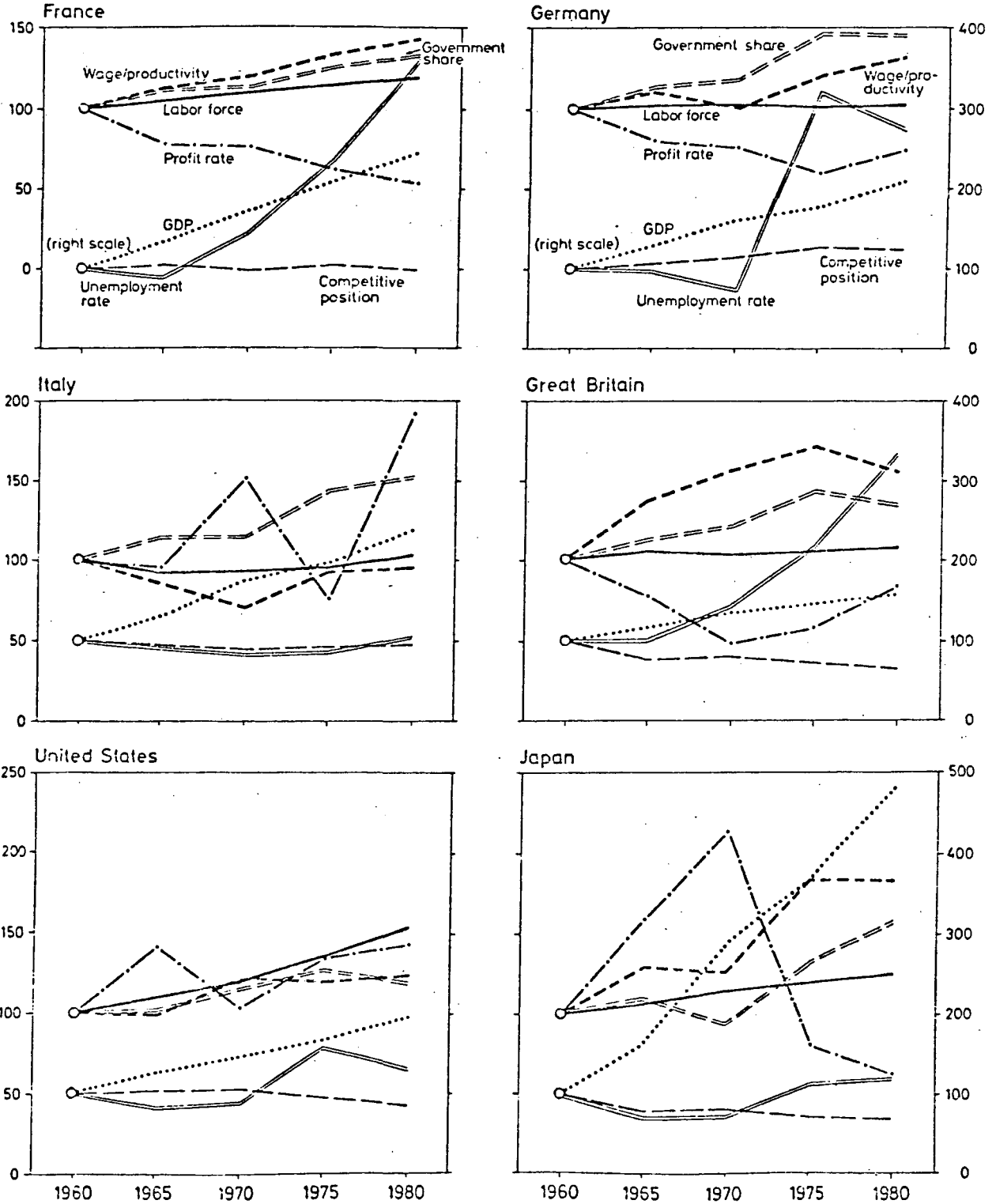
¹ For sure the international competitive position comprises more than just actual exchange rates, as not only the right products must be offered, but also non-pecuniary factors like reputation, reliability and future delivery capability (i.e. risk for strikes) should be considered.

² That differences in the reaction pattern between countries can be perceived should not be surprising.

Diagram 1:

Unemployment, its Determinants and the Economic Environment
Selected OECD Countries 1960 - 1980¹

1960 = 100



¹For definitions see text, for methods of calculation and sources see appendix.

With but few exceptions - which can be explained by the special situation in the various countries (e.g. Japan and 'paternalistic' labor market and Italy where the unemployment rate hardly changed due to migration into the underground economy) - the evidence would seem to allow the hypothesized impact to be considered confirmed, if only in a 'soft' way, i.e. backed up by graphical reasoning rather than high-powered econometric methods. If the basic hypothesis holds up in general, then the examination can turn to some of the specific measures which lie behind the individual curves.

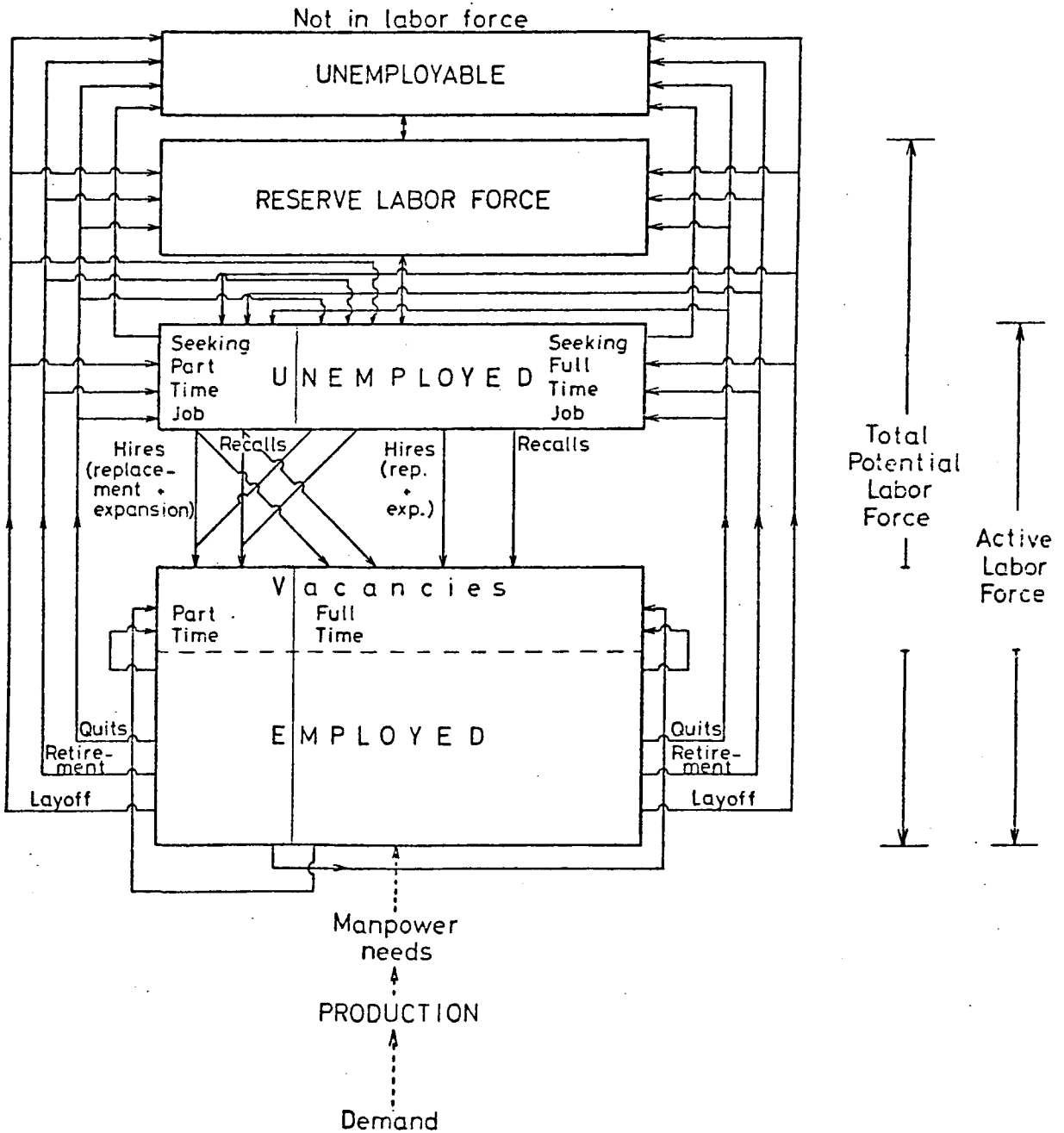
III. Distortions in the Labor Market - Specific Measures

The labor market - as used in this paper - describes that nebulous area in which decisions affecting the amount of labor (work) to be supplied and the amount of labor to be demanded are made (see Diagram 2).

Decisions on the supply side are made by people not currently in the active labor force as well as those working full time. The decisions can be aimed at retiring from the active labor force (e.g. to procure more education), moving from a full-time job to job-seeking activities (e.g. if unemployment compensation and/or non-work activities would make it seem more profitable) or even changing locations. Whatever the case, the determinant behind all such decisions can be assumed to be the attempt to maximize the flow of lifetime income (consisting of pecuniary and non-pecuniary elements).

On the labor demand side - derived from the demand for goods via production needs -, it is (as mentioned above) the profit motive which determines the amount and type of labor to be combined with a given capital stock or determines how

Diagram 2 : LABOR MARKET FLOWS



much capital should be substituted for labor or even whether capital should be exported.

To analyze the interferences two groupings - I and IV - have been selected from a listing of major policies impacting the labor market - structured according to the thrust of the policy¹:

I. Directly influencing pay levels

- Legal minimum wages,
- Contract minimum wages and lump sum pay increases.

II. Directed toward job rights

- Employment security,
- Antidiscrimination legislation.

III. Directed toward job environment

- Work rules,
- Job/occupational training.

IV. Social aspects

- Maternity leave,
- Paid sick/convalescence leave,
- Unemployment compensation.

It ought to be noted that the major headings should not be interpreted as only representing the subheadings in accordance with the intended goal. For instance, although pay levels are directly affected by minimum wages, minimum wages are intended to have a social impact.

¹ This breakdown is in line with Donges, Spinanger (1983), in which an overview of all these groups is contained.

I. Directly influencing pay levels

Minimum wages: with the advent of public concern for employment conditions in the course of the last century, governments and unions began to direct attention towards the adequacy of wages to maintain a socially accepted minimum income level. Had the policymakers in the last century done their economic homework they would have known that setting fixed wages 'hinders the one from working at what he thinks proper, (and) hinders the others from employing whom they think proper.' (Smith, 1776, vol. I, p. 138). But at the end of a century laden with tales of human suffering and social upheavals, the attempt to effect some minimum wage level was probably inevitable. While initially aimed at sweatshop conditions (e.g. Australia in 1896¹) but also in connection with working conditions for women and children (e.g. the United States in 1912)², minimum wage legislation today is usually sold as a social policy to shore up wages of workers with little or no bargaining power and to guarantee a minimum income³.

No matter what reason is given for minimum wages, the evidence does not support the contention that it represents an efficient measure⁴. In connection with the laws passed in

¹ For a brief overview see West, McKee (1980) pp. 1-11.

² An interesting description of the early U.S. legislation can be found in Broda (1928).

³ For a summary of existing legislation in some OECD countries see OECD (1982) pp. 53-56.

⁴ The most recent study done by Martin (1983) under the auspices of the OECD concludes that the North American literature - and own calculations - show that minimum wages produce unemployment and are ineffective in reducing poverty. While the OECD can hardly be considered to be an organization which hastily and recklessly arrives at conclusions, the ILO in an earlier (Starr, 1981) comes to a different conclusion. Here the wealth of studies is seen by the ILO as providing inclusive evidence which must be

Australia Lees-Smith (1907) broached issues which were later systematically dealt with by Stigler (1946) and Machlup (1946, 1947). The central issue in most of the numerous theoretical and empirical articles has been the employment/unemployment effects, be it in connection with the level of minimum wages, their coverage, interaction with transfer payments and/or labor market behavior (see Brown et al. (1982, 1983), Rottenberg (1981), Spinanger (1978) and sources therein). Nearly all the empirical studies tend to show that minimum wages induce unemployment and greater cyclical unemployment movements for those groups (youths, particularly minority groups) whose wage levels would - without factor market distortions (i.e. minimum wages) - be lower¹.

Two aspects with regard to the impact of minimum wages would seem to be worthwhile underlining:

- the extent to which minimum wage increases cause persons to leave the active labor force because the probability of finding a job has become too small,
- the degree to which the crowding out of the least competitive labor force cohorts from areas covered by minimum wages and their crowding into areas not covered or less covered by minimum wages.

As concerns the first point it has already been shown graphically by Spinanger (1978, p. 240) that shifts in the labor force participation rates (LFPR) of certain youth cohorts were highly correlated with changes in minimum

continued from p. 9: reexamined so the doubts about the effectiveness of minimum wages can be removed and an appropriate role for them found (pp. 183-184).

¹ See Donges, Spinanger (1983, pp. 1-5) for estimates of minimum wages on cyclical volatility of unemployment rates.

wage legislation in the United States. Given the importance of picking up the total impact of such interferences in the labor market¹ and the failure of some earlier studies (e.g. Kaitz, 1970) this aspect was re-investigated empirically. Not knowing what other factors might be influencing the LFPRs of the various cohorts it was decided to define changes in the differential between LFPRs for nonwhite and white youth cohorts as evidence of changes in unemployment levels. Vis-à-vis a model in which unemployment rates serve as the dependent variable, it was expected to find that elasticities vis-à-vis minimum wages and relative labor supply would be larger².

In its functional form the model - using OLS regression analysis and run over the period 1954-1975 for six labor force cohorts - is structured as follows:

$\ln RUR_i$

or
$$= a_0 + b_1 \ln REMIN + b_2 \ln RLF_i + b_3 \ln CAP$$

$\ln RURADJ_{NW_i}$

The two dependent variables were defined as follows:

¹ That is, the extent to which the unemployed and the labor force change by the same percentage amount, the unemployment rate remains the same.

² In addition to the impact of these two variables the results will also embody the impact of changes in discrimination. Assuming that racial discrimination on the part of employers was being reduced over this period - or at least not increased - the results will not be biased upward.

the relative unemployment rate (RUR)¹

$$RUR_i = \frac{UR_i}{UR_{NW35-44}}$$

RUR_i = relative unemployment rate of cohort i

UR_i = unemployment rate of cohort i

$UR_{MW35-44}$ = unemployment rate of cohort male white 35-44 years

the relative unemployment rate adjusted for labor for participation rate differences (RURADJ_{NW_i})²:

$$RURADJ_{NW_i} = \frac{\frac{(LFPR_{W_i} - LFPR_{NW_i}) + UR_{NW_i} (LFPR_{NW_i})}{100}}{LFPR_{W_i}} \cdot 100$$

$$UR_{MW35-44}$$

¹ RUR_i or $RURADJ_i$ (as opposed to UR_i) was chosen to eliminate some of the cyclical disturbances and thus avoids a serious error made in other investigations where such an adjustment was accomplished by including an unemployment rate as an independent variable. Furthermore, the selection of the cohort MW_{35-44} years as the denominator avoids self-induced changes in the RUR for all other age groups.

² Although the assumption about a zero differential between $LFPRs$ ignores the socio-economic determinants of $LFPRs$, in the initial years the differential was indeed small or even in favor of the nonwhites. It is hence assumed that, although this adjusted unemployment rate might be distorted somewhat by impact of changing determinants of $LFPRs$, it nonetheless does a better job of capturing relative unemployment differentials over time than a comparison of $RURs$.

$RURADJ_{NWi}$ = relative unemployment rate of i nonwhite age cohort adjusted for age specific differences in LFPRs between whites and nonwhites,

$LFPR_{Wi}$ labor force participation rate of i white
= or
 $LFPR_{NWi}$ nonwhite cohort

UR_{NWi} = unemployment rate of i nonwhite age cohort.

A comparison of RUR and RURADJ is given in Table 2a.

The independent variables included are:

REMIN = real minimum wage rate constructed by deflating the minimum wage rate by the increase in consumer price index

RLF_i = relative labor force of cohort i - calculated analogous to RUR (denominator is labor force cohort $LF_{MW35-44}$)¹

CAP = capacity utilization indicator computed by centering the percent deviations of GNP (constant dollars) from an exponential trend at 100²

¹ This variable picks up the impact of the relative increase in the labor force vis-a-vis control cohort. The larger the increase, and the more rigid the wages, the greater the increase in unemployment.

² CAP helps pick up cyclical fluctuations still in RUR. These fluctuations are the direct result of hiring policies where the most competitive cohorts are first to be removed from the ranks of the unemployed. Hence the lowest competitive groups will have the highest elasticities. For evidence of the impact of minimum wages on this elasticity see Donges, Spinanger (1983, pp. 1-5).

Table 2 - Minimum Wages and Relative Unemployment Rates Adjusted for LFPR Differentials

Table 2a - Comparison between Unadjusted and Adjusted RURS
Nonwhite Youth Cohorts USA¹

Age Cohort	M A L E S					
	RUR			RURADJ ^a		
	54-62	63-75	76-82	54-62	63-75	76-82
16-17	6.43	13.94	11.48	7.52	20.84	19.82
18-19	6.56	10.72	9.99	5.75	12.71	14.83
20-24	4.67	5.50	6.34	3.82	4.89	8.72

	F E M A L E S					
16-17	7.44	16.95	12.48	13.46	26.81	21.00
18-19	8.23	14.55	10.79	12.96	19.93	16.75
20-24	4.96	7.30	6.63	4.09	6.18	9.84

¹ For explanation of abbreviations see text.

Table 2b - Comparison of Regression Results Using Unadjusted and Adjusted RURS
Nonwhite Youth Cohorts - USA 1954-1982¹

Age Cohort	M A L E S											
	R U R					R U R A D J						
	Elasticities			Share of explained variance		\hat{R}^2/DW	Elasticities			Share of explained variance		\hat{R}^2/DW
	REMIN	RLF	CAP	REMIN	RLF		REMIN	RLF	CAP	REMIN	RLF	
16-17	0.487 ⁺	0.105	5.605 ⁺	30.30	9.13	0.678 ⁺ /1.367	1.061 ⁺	1.036 ⁺	9.440 ⁺	25.56	34.91	0.864 ⁺ /1.372
18-19	0.669 ⁺	0.191	6.622 ⁺	32.41	12.98	0.648 ⁺ /1.382	0.880 ⁺	1.025 ⁺	5.561 ⁺	27.83	41.50	0.805 ⁺ /1.916
20-24	0.335 ⁺	0.020	4.336 ⁺	29.95	2.69	0.696 ⁺ /1.472	-0.980	1.555 ⁺	-4.438 ⁺	23.95	37.20	0.500 ⁺ /0.835

	F E M A L E S											
16-17	0.700 ⁺	0.177	7.886 ⁺	31.59	12.81	0.649 ⁺ /1.052	0.824 ⁺	0.431 ⁺	9.957 ⁺	25.53	21.38	0.682 ⁺ /1.426
18-19	0.723 ⁺	0.105	8.106 ⁺	31.16	8.08	0.641 ⁺ /1.165	0.471	0.380 ⁺	7.955 ⁺	18.62	26.73	0.690 ⁺ /1.974
20-24	0.711 ⁺	0.200	7.676 ⁺	30.34	12.69	0.635 ⁺ /0.982	-1.586 ⁺	2.160 ⁺	-1.902 ⁺	30.91	62.64	0.580 ⁺ /1.431

+ = significant at 10% level.
¹ For explanation of abbreviations see text.

Source: Own calculations based on data from Bureau of Labor Statistics.

The results (presented in Table 2b) show that the elasticities for REMIN (in 2 cases) and for RLF (in 3 cases) did increase considerably for the nonwhite males. For nonwhite females the results do not fit quite as well into the expected picture - only one of the unemployment elasticities is larger, but RLF did increase significantly in 3 cases. For the females, one possible reason can be found in the relatively parallel tracks followed by LFPRs for white and nonwhite females up through the early 70s. Only since the mid 70's has there been a shift, which was accordingly reflected in the RURADJs (Table 2a)¹.

As concerns the second aspect - the crowding out of the least competitive groups from covered sectors into non-covered (or less covered) sectors - it can be expected to find that the wage rates in the noncovered (or less covered) sector will be more flexible to allow the increased demand for jobs to be accommodated. Likewise it can be assumed that those labor force cohorts whose expectation wage rates are lower will - *ceteris paribus* - be able to be employed more easily. Since the minimum wage legislation in the United States is so conceived that certain areas have remained uncovered, it is possible to investigate this subject by examining what has happened to newsboys. This labor force cohort represents an excellent example because minimum wage legislation has completely exempted it from coverage².

As can be seen in Table 3 the youngest newsboy cohort, i.e. the cohort with presumably the lowest wage expectations, has increased its relative share at the expense of the older

¹ It might be noted that a regression run with shift and slope dummies for REMIN after 1974 reveal the posited positive elasticities.

² See par. 335 of the Fair Labor Standards Act: "The provisions of sections 6,7 and 12 (minimum wages, overtime pay and child labor regulations) shall not apply with respect to any employee engaged in the delivery of newspapers to the consumer ..." (Commerce Clearing House, Inc., 1974, p. 92).

cohorts. That newsboys are not a dying breed - a development which might otherwise distort the results - can be concluded from the last column - they have actually increased their share by over 100%.

As far as the earnings of newsboys is concerned the hypothesized slower rate of increase can indeed be observed (Table 4)¹, when the earnings of the occupational heading clerical and sales - chosen to represent the development of earnings in a similar occupation - are compared with the earnings of newsboys. Whereas the share of those who earned less than \$ 1000 in clerical/sales group fell by over 80%, the newsboys reveal a decrease of less than 30%, and this would no doubt have been far less in the earnings of the 14-15 year olds had been included in the 1970 figures. In other words the uncovered sector - because of wage flexibility - was able to absorb a certain amount of those who - on account of the increase in minimum wages (i.e. wage inflexibility) - could not otherwise procure a job in covered sectors².

¹ Unfortunately, neither wage rates nor earnings are available on an age-cohort basis. Median earnings are also not available on a comparable basis for the various censuses, so it was assumed that the distribution of earnings should reflect average earnings.

² Of course, even if wages were completely flexible the absorptive capacity of a given sector would be limited by certain constraints. Furthermore, if the wage rate in the uncovered sector drops below the threshold wage for entry into the labor market (the intersection of the labor supply curve with the wage rate) then participation in non-labor market activities will be the result. This might possibly be the case for certain older youth cohorts, whose acceptance wage could lie above the equilibrium wage in the noncovered sector. To the extent that this occurs, the younger youth cohorts, who have a lower acceptance wage, could possibly profit from it.

Table 3 - The Role of an Uncovered Sector and Relative Employment Shares¹
of Male Age Cohorts - 1940, 1950, 1960, 1970
- The Case of Newsboys in the USA -

Year	Relative Employment Shares by Selected Age Cohorts for Newsboys						Newsboys as % of Total Employed (Males)
	14-15	16-17	18-19	20-24	25-54	55-64	
1940	58.80	23.63	3.86	.61	.19	.24	.16
1950	81.22	15.57	1.83	.26	.12	.14	.26
1960	63.82	12.74	1.40	.18	.08	.10	.44
1970	64.04	7.73	.86	.18	.08	.13	.36

¹ Calculated by dividing the share of the specific newsboy age cohort by the corresponding employment age cohort.

Source: U.S. Department of Commerce, Census of Population, General Summary, 1940, Vol. III, Pt. 1, Tab. 80; 1950, Vol. II, Pt. 1, Tab. 132; 1960, Tab. 212; 1970, Tab. 239.

Table 4 - Earnings¹ of Newsboys and Clerical/Sales Occupations
(Total) - 1940, 1950, 1960, 1970 (%)

	1940	1950	1960	1970 ²
Newsboys	92.67	86.48	90.94	62.87
Clerical/Sales (Total)	37.66	10.46	10.08	5.87

¹ Those earning less than 999 \$ as % of all earners.

² Excludes 14-15 year olds.

Source: U.S. Department of Commerce, Census of Population,
1940: Vol. III, Part 1, Table 72
1950: P-E No. 18, Table 19
1960: PC(2) - 7B, Table 25
1970: PC(2) - 7A, Table 16.

It would seem quite evident that the impact of minimum wages - like all measures increasing the relative price of labor - causes significant shifts in the demand for those labor force cohorts whose wage rates would otherwise be below the minimum wage rate. To the extent that these shifts induce production to be restructured in a more capital intensive direction a ratchet effect is likely to result, making a rescinding of the minimum wage likely not to cause employment of those unemployed. The ratchet effect is thus no doubt one of the reasons for the steady increase in the unemployment rates for the less competitive labor force cohorts in the U.S. Also working in the same direction is the upward shift in the demand for labor with higher levels of human capital. Whereas earlier a strong back represented a useful trait to help get and keep a job, today it is a strong head. Since relative education levels are indicators of relative human capital levels, those with lower levels of education - and hence lower levels of pay - are those who will be most affected by minimum wage levels or changes therein. Evidence of this can be gathered indirectly by examining the development of unemployment rates by specific labor force cohorts over a twenty year period (1950-1970) during which the minimum wage legislation in the U.S. was rapidly expanded¹ and compare them with indicators of changes in levels of human capital. As can be seen in Table 5 there is indeed a high correlation between changes in levels of human capital of labor force cohorts and changes in unemployment rates. If the table included changes in the labor force and relative wage level changes as well it would probably fairly well cover the 'reasons' for changes in unemployment rates. Particularly if the youth cohorts were included with an appropriate human capital indicator the

¹ During this period the coverage was increased from about 55% to over 75% of nonsupervisory employees in the private sector. The minimum wage which averaged about 50% of average hourly earnings throughout the period, was increased from \$ 0.75 (1950) to \$ 1.60 (1970).

Table 5 - Changes in Human Capital Levels¹ and Unemployment Rates:²
United States 1950-1970

Labor force age cohort	White		Nonwhite	
	% changes in			
	human capital levels ¹	unemployment rates ²	human capital levels ¹	unemployment rates ²
Males				
Total > 16	66.9	-23.9	227.8	-26.6
20 - 21	61.7	-33.7	258.7	-13.8
22 - 24	70.1	-28.4	278.1	-22.6
25 - 34	49.1	-28.2	203.2	-41.9
35 - 44	68.2	-33.3	235.2	-40.0
45 - 54	101.2	-38.5	233.0	-40.6
55 - 64	94.6	-38.3	133.3	-45.8
Females				
Total > 16	32.7	19.5	101.6	-5.0
20 - 21	22.9	32.0	117.8	-1.5
22 - 24	24.8	26.2	109.6	-10.3
25 - 34	27.3	-9.4	125.6	-12.1
35 - 44	41.4	24.2	174.4	-8.2
45 - 54	51.1	12.1	191.6	-24.1
55 - 64	50.4	-7.9	141.6	-21.2
¹ % change in share of those in labor force with high school degree and 1 - 3 years of college. ² % change in unemployment rates.				

Source: Own calculations based on U.S. Department of Commerce (1950, Table 9; 1970, Table 9).

impact of minimum wage legislation would become noticeable as the increase in the coverage of youth employment from 30% to almost 70% was far greater than for total coverage.

Contract minimum wages and lump-sum pay increases as agreed upon between unions and employers act in a fashion similar to minimum wages. In the former case they act as wage floors - as do minimum wages - and are binding regardless of productivity differences - hence they bestow wage structures with a certain degree of rigidity. In the latter case, the lump-sum wage increases up wage levels more for those workers whose productivity levels can be assumed to be relatively low. Thus the relationship between wages and productivity for these cohorts is shifted in a direction which causes employers to consider substitute factors.

While Lewis's seminal book (1963) contains answers to a wealth of questions on the impact of unions, it wasn't until recently that a filtering out of the impact of personal characteristics (e.g. education, prior work experience, etc.) became possible (Ashenfelter, 1978) so that a closer look at the direct impact of unions on wages could be made. Among other things Ashenfelter (p. 33) shows that over time the wage differential between union and nonunion wages has increased significantly. It was during this time period that the United States shifted from a fast-growing economy, with excess demand to one of slower growth and 'shocked' by the first round of oil price increases. Despite these developments - and despite a decline in union membership - unions were still able to increase their share of pay increases. Given the picture drawn for the USA in Diagram 1 the rest of the economy was obviously subjected to lower increases and no doubt also relegated to some extent to the secondary labor force, where they will be subjected to larger employment fluctuations in the future, particularly if the above mentioned ratchet effect applies. While union members were

Table 6 - Union/Nonunion Wage Differentials and Degree of Unionization - USA

	Total	Employment cohort			
		Males		Females	
		White	Black	White	Black
<u>Wage differential</u>					
1967	1.116	1.096	1.215	1.144	1.056
1975	1.168	1.163	1.225	1.166	1.171
% Change 1967-75	4.66	6.11	0.82	1.92	10.89
<u>Share in unions (%)</u>					
1975	25	31	31	14	22

Source: Adapted from Ashenfelter (1978) pp. 33 and 35.

able to rake in their quasi-monopoly wage differentials up through the 70s, they became haunted by these demands around and after the turn of the decade and as the impact of the prolonged recession on top of large structural shifts caused unions to have to make large concessions should the companies in which they were employed survive.

Similar studies on the impact of unions on relative wages have been carried out for other countries (see Metcalf, 1977, for a summary of U.K. literature), but in only a few is the full impact of unions fully captured¹. That is, information on the cost of fringe benefits to the employer is often not adequately included. Knowing that particularly

¹ For instance Mincer (1981) estimated that a 10% increase in union wages would increase the union/nonunion fringe benefit ratio by 16% (p. 33).

here the unions exert considerable pressure to make work and working conditions more 'pleasant' it would seem obvious that considerable sums of money are spent without a given worker realizing that they are part of his paycheck. However, these nonpecuniary benefits are quite pecuniary to the employers and they cause a further wedge to be driven between the supply and demand for labor. This being the case it would seem difficult to be able to concur with the 0.14% welfare loss estimated by Rees (1963) and often presented as evidence of the trivial impact of unions.

The impact of unions on the allocation of resources via higher relative wages for union employees, less flexibility in wage structures and political pressure groups results - according to Olson (1982, p. 219) - in higher unemployment levels in those parts of the U.S. where the degree of unionization is the highest. As concerns the first two aspects - together with minimum wages - an empirical analysis of their impact on unemployment levels has been carried out for the U.S. using 1970 state-level data. Three overall indicators of employment problems have been used as follows:

- U = unemployment rate calculated as unemployed in % of respective civilian labor force cohort (M = males; F = females; B = blacks; W = whites)
- UMIG = unemployment rate (as above) adjusted for those who migrated, i.e. assuming they left because of inadequate job possibilities
- dEMP = change in employment from 1960 to 1970, i.e. a ratio of 1970 to 1960

The explanatory variables included the following:¹

¹ The signs in () represent the expected sign of the correlation coefficient; for dEMP the sign is reversed.

- UNION = % of workers organized in unions (+)
- MINWAGE = national minimum wage level variable calculated by subtracting minimum wage level (\$ 1.60) from average wage level in state. It is assumed that the greater the differential, the less likely there will be an impact on employment levels (-)
- MINSTATE = minimum wage levels set by states - it complements the national minimum wage rates (+)
- COVER = estimated level of coverage of minimum wage legislation by state; calculated by applying national industrial coverage rates to the state industrial structure of employment for 1970 (+)

While the results of the analysis in Table 7 should not be overinterpreted they would seem to be more in line with Hayek's (1980) contention, that unions are the chief cause of unemployment, than with Rees's above-mentioned minimal impact. In 6 cases UNION proved to be significantly correlated (with the right sign) with indicators of employment problems, whereas the other determinants proved to be correlated in only 1 or 2 cases¹. Actually it is surprising - in light of the wealth of studies showing a negative impact of minimum wages - that the minimum wage variables don't prove to be more significant. However, if, for instance, the MINWAGE column is examined - specifically the shift in the sign between $U^{MB,FB}$ and $UMIG^{MG,FB}$ - one reason for the insignificance becomes evident: migration out of the states where MINWAGE was low into states where it was high.

¹ It should be noted that the calculations were carried out with only 41 observations as 10 observations were discarded because the black labor force was considered to be too small to adequately represent labor market conditions in the entire state. Thus to keep all calculations comparable only 41 states were entered into the calculations.

Table 7 - Unions, Minimum Wages and Employment Problems in the U.S.
1970¹ - Correlation Coefficients

	MEAN	Coef of. Var. x 100	UNION	MINWAGE	MINSTATE	COVER.
U ^M	3.89	44.71	.4197 ^x	.3545 ^x	-.2546	-.1466
U ^F	5.28	20.08	.1717	.1461	.0818	-.0570
U ^{MB}	7.13	34.41	.2551	.3135	.1613	-.2305
U ^{FB}	7.94	20.42	-.0706	-.1200	-.1621	.1209
U ^{MW}	3.59	33.68	.4744 ^x	.4504 ^x	.3241 ^x	-.1881
U ^{FW}	4.85	22.80	.3671 ^x	.3884 ^x	.2846 ^x	-.1701
UMIG ^M	3.57	92.81	.2656 ^x	-.0045	.0950	.1191
UMIG ^F	5.23	56.50	.1132	-.1635	-.0290	.1449
UMIG ^{MB}	6.49	66.72	-.0778	-.3543 ^x	-.3305 ^x	.13558
UMIG ^{FB}	7.96	56.56	-.3855 ^x	-.5657 ^x	-.4906 ^x	.0687
UMIG ^{MW}	3.04	119.98	.3808 ^x	.1454	.2288	.0775
UMIG ^{FW}	4.55	69.19	.3193 ^x	.0758	.1812	.0878
dEMP	132.82	11.06	.1441	.0972	.0025	-.3603 ^x
MEAN	-	-	25.43	1.71	1.01	72.49
Coef. of Var. x 100	-	-	40.71	26.28	65.47	4.81
No. signifi- cant with correct sign	-	-	6	2	2	1

x = significant at 10 % level

¹ See text for explanation of variables

Source: Own calculations based on data from Bureau of the Census and Bureau of Labor statistics. - Data can be supplied upon request.

An additional important factor causing the impact of unions to be the most significant variable stems from its indirect influence as a political pressure group rather than directly via wages and wage structures. Hence aging industries receive special treatment - for instance through protection - and are kept alive beyond the point where they are efficient¹. Since union pressure is often complemented by pressure from employers the actual impact exerted by unions is quite large.

As concerns the case of lump-sum payments it is difficult to come up with specific examples, but in Germany - where the degree of unionization is higher than the U.S. - it is possible to analyze the lowest wage groups, knowing that these were being aimed at by unions with such payments. The purpose of these lump-sum increases was - as noted earlier - to add a social component to wage increases. But what they have probably done - just like the minimum wages in the U.S. - is to crowd these groups out of the labor market or at least keep new entrants out - given the relative increases shown in Table 8, another conclusion can hardly be drawn. A similar development took place in connection with the compensation of apprentices in Germany. At a time when the baby boom was beginning to come into the labor market, wages for apprentices were increased considerably. Over the ten year period ending in 1981 first year compensation for apprentices had increased at least a third faster than compensation for skilled workers. Along with the change in the training system in Germany at the end of the 60s, which burdened firms with many obligations to ensure that up-to-date training was offered, the flexibility of the system was decreased rather than increased.

¹ The fact that many MFA industries are located in the problem areas in most OECD countries, but in the growth areas in developing countries is a case in point here.

Table 8 - Relative Minimum Wages in Selected Industries in
West Germany

Industry	1960 ¹	1965 ²	1970 ²	1975 ²	1982 ²
Printing	61.0	100.0	106.6	117.4	121.3
Metal manufacturing	70.2	100.0	106.8	113.9	116.8
Paper	71.4	109.0	116.9	124.6	125.5
Chemical	71.6	106.8	109.6	118.7	119.8
Iron and Steel	74.2	100.3	107.8	109.8	109.8
Ceramic	74.9	100.4	109.3	112.6	113.6
Woodworking	75.1	101.3	104.0	109.3	113.2
Construction	87.6	102.9	103.8	103.8	94.4

¹In % of skilled labour wages. - ²1960 = 100.

Source: Calculated from Soltwedel (1983).

Social Aspects

Maternity leave was introduced into industrialized societies, to protect - in the prenatal and postnatal period - the well-being of those women who were employed outside the folds of the family. Already by 1919 the ILO had constructed a set of minimum guidelines which were to be applied to all women without exception. These guidelines - concerning the length of leave (6 weeks prenatal and 6 weeks postnatal), financial considerations, the obligation of employers and the right of the mother to nurse the baby during work - still constitute to a large degree the maternity leave laws as they exist in most industrialized countries. That is to say, most governments in Europe have come to the conclusion that childbearing and the protection of mothers should be supported by society - as a matter of fact this is even explicitly stated in the German constitution.

The protection of future mothers begins with restrictions placed on their employment and the tasks they can perform during their pregnancy. Likewise various arrangements about job tenure (security) and total inability to work have been established so that a considerable amount of protection around child-bearing women has been established and employers have but little leeway in what they are allowed to do.

In connection with the length of leave many European countries have extended the postnatal period in recent years so that over six months are available in Germany, Italy and Sweden (see Table 9). While Netherlands (with 12 weeks) is at the bottom end of the scale in Europe, in the United States expectant mothers usually have to take sick leave or even vacation to cover at least the immediate pre- and post-natal period.

In addition to the leave arrangements generous compensation is made to cover most of wages and salaries foregone. These are financed by insurance schemes (public and private), government transfer payments and the employers. In Germany, for instance 100% of the average pay in the three months prior to pregnancy are remunerated, whereby the Federal Government pays a maximum of 400 DM, the (public) insurance companies assume a minimum of 3.50 DM/day or a maximum of 25 DM/day and the employer finances the rest (through the end of the immediate maternity period). In the United States, on the other hand, there are virtually no legal requirements dictating financial assistance by either the government or the employer. The insurance coverage likewise tends to be minimal - only in the case of Aid for Dependent Children (AFDC) does the government provide financial subsidies (see Moore, Hofferth (1979) pp. 125-158)¹.

¹ Even the ILO guideline concerning time off from work (one hour per day - fully paid - in Germany) to nurse children has been realized. In a recent case in Germany an employer lost a case (in a lower court) against a woman who still wanted to nurse her child despite the fact that the child

Table 9 - Overview of Maternity Leave in European Countries¹

	Eligibility ²		Leave (wks)			Payment (Y = income)
	min. contribution period	in ? time frame	prenatal	postnatal	extra ²	
Belgium	6 m	-	6	8	-	100% net Y
Denmark	4 w	6 m prenatal	6	8	-	90% aver.wk.Y
France	10 m ²	-	6	8	Unpd.to 24 th m	90% Y
Germany	12 w	4 th -10 th m prenatal	6	8(+18) ³	-	100% insur.Y ⁴
Italy	-	-	18	13	6 m pd.	80%Y/30% for extra
Netherlands	-	-	6	6	-	100% Y
Sweden	6 m	180 d	← 7 m →		Unpd.to 18 th m	90% Y, but ≤ 7.5 base Y

¹Affecting working women; in Sweden working persons with more than 4.500 SK income per year.

²m = month; w = week; d = days.

³For those working at least 200 hrs./yr.

⁴Payment for extended leave ≤ 750 DM/month.

Source: Adapted from Smirnow (1979), pp. 481-484.

All this together means that considerable costs are borne by employers to pay for part of the maternity leave, pay for replacements during the leave period and reorganize production schedules so as to be able to comply with the legal obligations. While larger companies, with a reservoir of potential substitutes, can relatively easily retailor work schedules, smaller companies have considerable difficulties, particularly if highly qualified personnel are affected. Thus the more that is done to upgrade and expand benefits accruing to women bearing children - no doubt an admirable social goal - the greater the hesitancy on part of the employer to employ them in responsible positions and invest in them human capital. The result is a tendency to employ women during their childbearing age in more marginal positions - positions where they are most likely to be subjected to greater employment instability. As a matter of fact if the regulations in Table 9 are compared with unemployment levels for women it can be seen that - generally speaking - unemployment is the highest or increased the most where the regulations are most liberal.

Paid sick/convalescence leave: that employees become sick is nothing new, but that employees should be given time off from work and then receive all medical bills paid for, is something which has been realized in Germany within the last 50 years, but in the United States only partially¹. Paid sick leave for white-collar workers in Germany was insti-

continued from p. 28:

was 5 years old. While overturned by an appellate court in the meantime - a decision which will probably be appealed - the case shows quite well the potential moral hazard such laws can engender.

¹ In Germany state-supported health insurance is based to a large extent on laws and regulations dating back to 1883 under Bismarck (Gesetz über die Krankenversicherung der Arbeiter) and 1911 (Reichsversicherungsordnung). In the U.S. it was during the Kennedy-Johnson era that state run health insurance came into being but only for the aged (Health Insurance Act for the Aged).

tuted in 1931 - blue-collar workers at this time received only 50% of their basic pay beginning with the fourth day of sick leave. In 1957 this was improved (90% of basic pay for 6 weeks beginning with the third day of leave) and finally in 1970 full parity was reached with the white-collar workers.

In the United States - aside from Medicare for pensioners and Medicaid for the poor as well as special laws in five states - there is no legal requirement for the employer to pay for sick leave or health insurance. Most contracts covering such areas are thus made through the employer with a private insurance company in the form of a group policy¹. Thereby it can be found that sick pay is often far less than actual pay and the length of benefits extends from 13-52 weeks (Seffen (1980), p. 31)².

If the existence of such policies increases the possibility of moral hazard, then for sure West Germany would be a candidate. This possibility would be reinforced by employment security laws which limit the possibility of employers to rid themselves of sick employees. As can be seen in Table 10 the level of benefits is relatively high in Germany and those in the United States quite low. Accordingly the cost to employers is quite high and has risen considerably over the years from 1.7% of gross pay in 1966 to 6.3% in 1980. And in the time period between 1969 and 1972 - during which blue-collar workers finally received full benefits - the

¹ It is estimated that about 90% of the population is covered by health insurance (Davis, Rowland (1982) p. 523).

² As it stands now those becoming unemployed in the United States - because they are no longer attached to a company - are not covered by health insurance. A bill currently in Congress proposes to change this and make employers pay part of the bill for a number of months following the employees discharge.

jump was from 1.7% to 5.9%¹ (Hemmer (1981) p. 38). While it is generally refuted that the liberal health insurance system (i.e. moral hazard) is responsible for this trend, Diagram 3 helps to clarify the issue somewhat: there has not only been an upward trend in the % of those on sick leave, the cyclical movements testify to the loosening and stiffening of qualms about becoming sick.

Unemployment compensation: at roughly the same time that social laws were being struck down by the courts in the United States towards the end of the last century², institutions in European countries were being spawned to shoulder the financial burden engendered by unemployment. While at first these were basically organized by unions - e.g. in Germany - in most cases they gave way to state operated systems³ at a later point in time. Of the EEC countries (excluding Greece) only Belgium, France and the Netherlands had no state run or supported unemployment insurance (UI) system by the late 1920s. Today, however, UI in most OECD countries not only provides relatively high compensation rates (see Table 11), it has been extended to cover most of the active labor force, aside from being complemented by myriads of other policies to help redirect unemployed human resources into areas presumed to be promising (for an over-

¹ It might be added that for blue-collar workers alone the increase was from 1.4% to 7.08%. Also of interest is the fact that 70% of those sick are so on Monday or Friday, but only 4% on Wednesday.

² For a particularly interesting overview of the development, of American thought vis-a-vis - inter alia - economics, social legislation and the law see Commager (1950).

³ Risch (1981), p. 517 notes that in St. Gallen one of the first compulsory unemployment insurance systems was organized on a local basis in 1895, but it lasted for only one winter. The reasons for this failure were (1) low contributions by those who took advantage of the insurance the most (seasonal workers) - this led to an outmigration to the suburbs to avoid paying contributions; (2) the labor exchanges failed; (3) the unemployed were not controlled, so that many unemployed were working on the other side of the boarder.

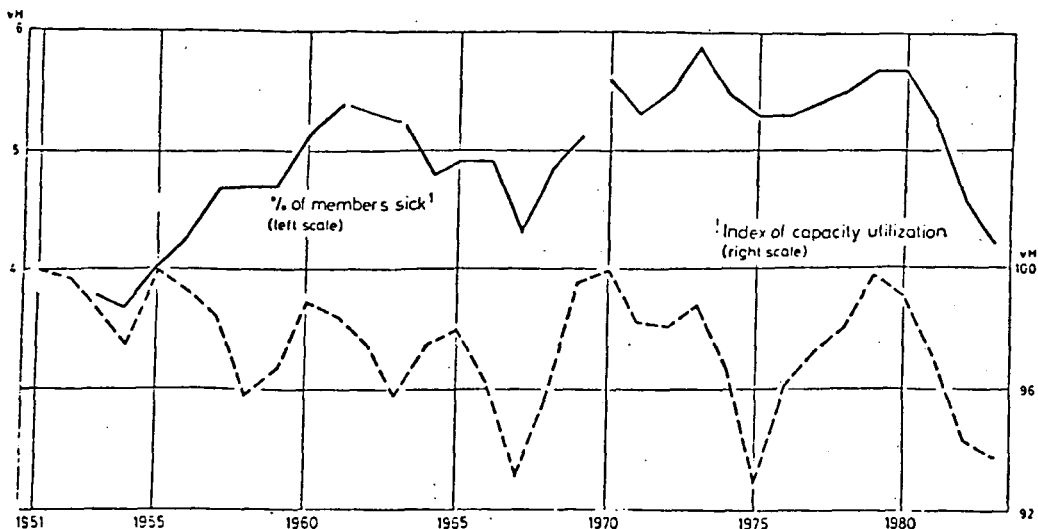
Table 10 :Overview of Sick Leave Pay in Selected OECD Countries

	Paid by employer ^a		Paid by insurance		
	% of gross pay	for -- days	% of gross pay	for -- days	Initial days unpd.
Belgium	100	30 ^b	60	364	1
Denmark	100 ^c	35	90 ^d	no limit	0
France	90 ^e	30 ^e	50 ^f	360 ^g /1080 ^h	3
Great Britain	-	-	60	168 ⁱ /156 ^j	3 ⁱ /12 ^j
Italy	100	90 ^k	50 ^{l,m}	180 ^m	3 ^m
Netherlands	-	-	80	364	0
Sweden	-	-	90 ⁿ	no limit	1
West Germany	100	42	80	546 ^o	1 ^p
USA ^q	-	-	50-67	182	0-7

^aWhite collar employees. ^b7 days for blue collar employees. From 8th - 30th day an amount equal to difference between 60% and gross pay remunerated by employer. ^c90% of net pay for blue collar. ^d% of net pay. ^eMinimum after 3 years of work; 66% for next 30 days. Leave increases by 10 days for each 5 more years of work up to 90 days maximum. ^fWith 3 or more children increases to 66.6% after 31 days. ^gWithin a period of 3 years. ^hFor non-interrupted period. ⁱLump-sum sick pay. ^jIncome related sick pay. ^kMinimum. ^l66.6% after 20 days. ^mFor blue collar workers only. ⁿTaxable. ^oWithin 3 years for same sickness. ^pIn the practice only for those not qualified for initial sick pay by employer. ^qOnly in 6 states.

Source: Adapted from Seffen [1980], pp. 33 and 37.

Diagram 3
Sick Leave and Business Cycles in Germany



¹Incapacitated workers in % of mandatory members in public health insurance system.

Table 11 - Overview¹ of Unemployment Compensation Measures for Selected OECD Countries: 1979 and Change since 1973²

	Canada	France	Germany	Italy	Sweden	United Kingdom	United States
Coverage: 79	Emps. > 65 yrs. excluded	Emps. + apprs. + national service	Emps. + apprs.	Emps.	Emps. ³	Emps. + apprs.	Emps. (priv. sector)
73	All emps.	Emps. + apprs.	Emps. + apprs.	Emps.	Emps. ³	Emps. + apprs.	Emps. (priv. sector)
% covered 79/70	90/65	60/56	85/78	48/47	75/58	80/77	90/72
Eligibility requirements ⁴ 79	12 w / 12 m	91-182 d/12 m	6-24 m/36 m	52 w/24 m	52 w but 5 m/12 m	50 w/12 m	Depends on state, Y or ind.
Change 73-79	-8 / 0	0-+182/0	0-+18/0	0 / 0	0 0/0	0 / 0	-
Waiting period for benefits 79	2 w	0	0	1	5 d	3 d flat rate 12 d Y based	1 w (usually)
Change 73-79	0	0	0	0	0	0	-
Benefits: how calculated? 79	60% of gross Y	90% of gross Y	68% of net Y	800 Lire/d or 67% of Y	153.10 SK/d (average)	Flat rate + Y based	Depends on state, Y or ind.
Change 73-79	-7%	+50%	+5%	+400 Lire or 0	+101.10 SK	-	-
Taxable? 79/73	Yes/Yes	Yes/No	No/No	No/No	Yes/No	Yes/No	No/No
Minimum 79	\$ 50/w	ff 53/d for 2 1/2 yrs.	-	-	-	-	\$ 10 - 35/w
Change 73-79	+\$ 30	+ ff 41.13	-	-	-	-	\$ 0 - 15
Maximum 79	\$ 265/w	ff 480/d	DM 2312/m	-	-	£ 102/w	\$ 80 - 192/w
Change 73-79	+\$ 158	+ff 355.42	+DM 874	-	-	+ £ 56	+ \$ 35-92
Limit 79	58 w	365 d if < 50 yrs.; 791 d if 50-55 yrs.; 912 d if > 55 yrs.	Based on w. worked: 13 - 52 w	180/360 d	60 w if < 55 yrs.; 90 w if 55-65 yrs.; 0 w. if > 65 yrs.	96-312 d	26-39 w (based on w worked)
73	51 w	365 d if < 50 yrs.; 609 d if > 50 yrs.	26 w - 104 w	30 w	30-40 w if < 60 yrs.; 60 w if 60-67 yrs.; 75 d if > 67 yrs.	312 d (flat rate) 256 d (Y based)	26-39 w (based on w worked)
% increase 73-79 in: maximum benefits	+148%	+340%	+61%	-	+194%	+122%	+78-92%
Wages	+ 93%	+151%	+51%	-	+123%	+151%	+64%
Financing: employer 79	1.9%	2.76%	1.5%	1.3%	-	0.8%	3.4%
% Change 73-79	+35.8	+392.9	+76.5	-56.7	-	+110.5	+6.3
employee 79	1.35%	0.94%	1.5%	-	SK 34.10/m (average)	0.8%	-
% Change 73-79	+35.0	+500.0	+76.5	-	+98.3	+110.5	-
wage ceiling 79	\$ 442/w	ff 192000/yr.	DM 4000/m	-	-	£ 120/w	\$ 6000 - 10300/yr.
% Change 73-79	+176.3	+72.4	+73.9	-	-	+122.2	+42.9-43.1

¹ Abbreviations used in this table: Emps. = employees; apprs. = apprentices; priv. = private; w = week(s); m = month(s); d = day(s); Y = income; ind. = industry; yr(s). = year(s); - ² This table provides an overview of the highest level compensation schemes. It does not include public assistance, welfare etc. which in many cases increases benefits. Furthermore, the statistics stem from various sources, thus incorrect representation of the various measures cannot be excluded - the author would appreciate receiving corrections. - ³ Applies to branches with union funds. - ⁴ Required time to become eligible in months, weeks or days of contribution/in last months or weeks prior to becoming unemployed; e.g. 12 w/12 m means 12 weeks of contribution within the last 12 months are necessary to receive compensation.

view of such policies in Austria, Sweden and West Germany see Soltwedel (1982). And here the problem begins - not only does moral hazard enter the picture, but various national governments are finding out that financing all these schemes is becoming expensive. This means that financial resources must be drawn away from the other sources - ergo crowding out occurs at a time when lower interest rates might prove beneficial in prompting investment. But it is not merely a matter of crowding out (in financial markets) but rather a continually larger bite out of the paychecks of those still working and a heavy burden on the employers¹. That usurping of resources by governments is one determinant of unemployment was seen in Diagram 1.

The issue of moral hazard, as was shown in the case of health insurance, cannot be ignored if economic efficiency criteria are assumed to apply². Recalling Feldstein's (1973) portrayal of a fictitious Massachusetts' worker who finds that being unemployed for certain periods of time causes disposable income to be decreased - at the most - only marginally, it should be noted that in Germany, until just recently - it would have even been possible to increase one's income by not working for a certain period of time during the year as UI payments are not taxed.

It is not merely the moral hazard impact of UI alone but its interaction with the numerous other laws and regulations aimed at improving the social situation of workers and their families thereby inducing costs to be borne by both employees and employers. If the package of benefits jacks up the cost of employing workers beyond the point where employers find it profitable to employ them, then an underutilization of human capital is induced. Since the unemployed person may

¹ For instance in Germany this has culminated in a special law to place a surcharge on taxes due on high incomes, to be paid back (without interest) in the years 1987 to 1989.

² Risch (1981, p. 515) notes that already in 1907 the problem of moral hazard was contemplated in connection with state-run UI schemes.

not suffer any financial hardship over the period he receives benefits, the reservation wage is often increased to levels which do not correspond with human capital potential. That is, the opportunity costs of non-work activities are decreased - only over time does the reservation level decrease, particularly when UI benefits are exhausted¹. On the other hand the existence of UI benefits may well free the employer from qualms he might otherwise have and actually engender greater unemployment because 'father state' will take care of those released².

In the United States the UI system (officially introduced on a nationwide basis in 1935) embodies an additional negative incentive to stabilize employment. Here the Federal Government cooperates with state governments but the firms alone are required to pick up the tab for UI. Since the basis for the firm level financing of UI is calculated on an experience rating of the individual firms according to the rate at which they normally discharge employees - whereby a rather low ceiling is applied - once the ceiling is reached the firm can discharge workers at will without having to pay nay more.

In addition to these destabilizing effects, the fact that unemployment compensation rates (as well as welfare benefits) differ across states causes migration flows to be related to income maximization but not necessarily to a more efficient allocation of resources (see Cebula, 1980). This

¹ See for instance Fische (1982) pp. 12-17. He also showed that the lower the variance of wage offered the longer the unemployment period.

² Whereas UI is imposed from outside, in certain cases companies have attempted to solve the problem on a micro level. This was the case of Procter & Gamble which introduced in 1923 guaranteed employment. As a result of this (and other earlier measures) labor turnover was noticeably reduced and production costs were decreased by 5% (see Nelson (1969) p. 58).

can be demonstrated quite easily by examining migration flows between the states in the U.S. Assuming that employment changes represent an appropriate indicator for job and earnings potential one would expect that a positive correlation exists between net migration and change in employment, the following analysis has been carried out:

$$\text{MIGPOP}_i = a_0 + a_1 \text{DEMP}$$

and

$$\text{MIGPOP}_i = b_0 + b_1 \text{INS} + b_2 \text{ADC}$$

The variables are defined as follows:

MIGPOP_i = net migration of cohort i in the years 1965-1970 as % of total population of cohort i in 1970 (T = total; W = whites; N = nonwhites)¹

DEMP = change in total employment

INS = average level (in \$) of weekly benefits over the period 1960-1970

AFDC = average level (in \$) of monthly aid for dependent children

As can be seen in Table 12 white population cohorts react strongly to changes in employment levels, but the black population seems to respond to unemployment insurance and welfare benefits. One possible interpretation of this phenomenon is that blacks - because of barriers to entry (e.g.:

¹ To avoid possible distortions by those who are retired and hence migrate for other reasons net migration and population of these over 65 have been deleted from the respective cohorts.

discrimination, minimum wages)¹ in their state of origin - have difficulties in procuring a job and hence maximize their income by taking advantage of the social system.

In Germany neither do regional differences in unemployment compensation levels exist nor are firms required to bear the entire (direct) financial burden (as can be seen in Table 11 they share 3% equally). What remains is the impact of moral hazard, the empirical substantiation of which - due to idiosyncracies of the German labor market - has been stymied

Table 12 : Factors Influencing Interstate Migration in the United States, 1965 - 1970

	Constant	DEMP	INS	AFDC	\hat{R}^2 /F-Statistic
MIGPOP ^T	28.7241**	.2373**	--	--	.562**
MIGPOP ^T	-7.5686	--	.2968**	-.0226	.029
MIGPOP ^W	-29.8231	.2471**	--	--	.531**
MIGPOP ^W	-4.0383	--	.2499	-.0315**	.037
MIGPOP ^{NW}	-21.9665	.1695**	--	--	.096**
MIGPOP ^{NW}	-24.6426	--	.5236	.0324	.603**

** = significant at 10 % level.
For definitions of variables see text.

Source: Own calculations based on data from U.S. Dept. of Census.

¹ This fits well into the statistics already presented earlier where unemployment rates adjusted for net migration showed a significant correlation with a minimum wage available, but ordinary unemployment rates didn't.

(see e.g. König, Franz (1978) pp. 243-244)¹. What can be observed, however, is that in cases where retraining is possible, this path is often selected - perhaps without regard to capabilities or demand - because the remuneration is greater.

IV. Summary and Policy Conclusions

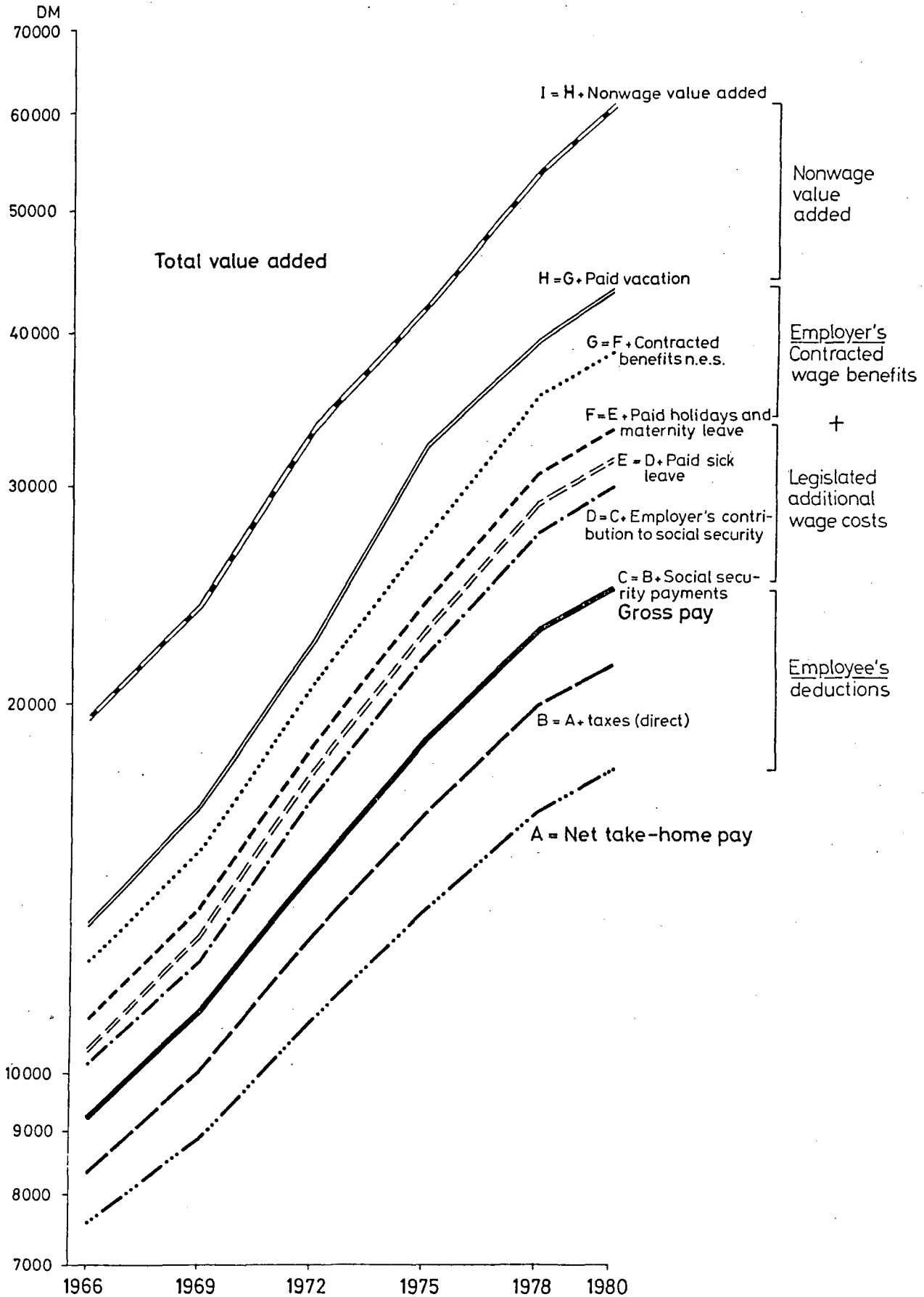
The various policies which have been discussed above have steadily built rigidities into the labour market the extent of which makes the conventionally discussed market imperfections (due to imperfect competition) look quite trivial. Although the politicians and trade union leaders came to believe that the continuous improvement of the terms and conditions of employment could only be beneficial to the active population, their policies have in fact greatly handicapped the ability of the economy to absorb a growing labor force. Well-intended measures actually drove out an increasing number of workers from their jobs and prevent new generations of workers from finding employment, they thus provided social insecurity rather than security. The explanation for this is twofold: on the one hand the policymakers suffered from social policy illusions and on the other hand the firms were required to finance most of the various measures, thus inducing a strong increase in labour costs beyond the rate of growth of total factor productivity.

Translated into real world figures, Diagram 4 and Table 13 portray what such policies mean for Germany. It becomes

¹ This includes the failure of the statistics to cover (a) those willing to work but not registered because they receive no unemployment compensation and (b) the impact on unemployment statistics due to foreign workers leaving. The impact of these and other regulations governing the registering of the unemployed as well as policies introduced to retrain unemployed or make their employment possible by providing subsidies (up to 90% of wage costs!) no doubt leads to a masking over of the labor market movements.

Diagram 4

Development of Value Added, Labor Costs and Take-home Pay in West Germany, 1966 - 1980



Source: Own calculations based on Hemmer(1981) and data from government.

Table 13 - Breakdown of Changes in Value Added, Labor Costs and Take-home Pay¹ in West Germany, 1966-1980

	% share of value added			% change		marginal share of value added	
	1966	1972	1980	66 - 72	72 - 80	66 - 72	72 - 80
Value added	19 427 ²	33 425 ²	61 136 ²	72.1	82.9	13 998 ²	27 711 ²
Nonwage value added	31.9	32.7	29.0	76.4	62.3	33.8	24.6
Total labor costs	68.1	67.3	71.0	70.0	92.9	66.2	75.4
Contracted benefits	11.4	12.0	16.3	81.3	147.6	12.9	21.4
Paid vacation	4.7	5.3	7.5	96.3	159.8	6.2	10.2
Benefits n.e.s.	6.7	6.7	8.7	68.9	137.9	6.5	11.2
Legislated benefits	9.2	11.8	14.2	119.4	121.6	15.3	17.2
Holidays + maternity leave	2.8	2.6	3.2	60.3	124.4	2.4	3.9
Paid sick leave	0.8	2.6	2.6	447.2	82.0	5.0	2.5
Social security	5.6	6.6	8.5	101.8	135.9	7.9	10.8
Gross pay	47.5	43.5	40.6	57.7	70.4	38.0	37.0
Social security	4.6	4.8	5.4	80.7	104.5	5.1	6.0
Direct taxes	4.0	5.7	6.4	144.1	107.1	8.0	7.3
Take-home pay	39.0	33.1	28.8	46.1	59.2	24.9	23.6

¹Per average worker. - ²Absolute amount in DM.

Source: See Diagram 4.

evident that the various laws, regulations and agreements have driven a large wedge between what employers have to pay for labor and what employees actually take home; the share of entrepreneurial income also decreased relatively. Looking at it in marginal terms it can be determined that the share of entrepreneurial income has been reduced by 25% in the two periods and that total labor costs now account for 75% of value added.

If the increase in wage costs since 1966 were to be compared with expenditures effected by the German Labor Office in 1980/81 (about 25 bill. DM) it turns out that government expenditures are only slightly over 10% of the wage cost increase. Can there be any question about the potential leverage reducing wage costs can have in influencing employment levels? While it is true that these figures represent only the costs without taking into account the benefits resulting from more leisure time and more generous medical and social benefits, the question arises in this respect if the cost of all these benefits was known - including the unemployment created - would the population still have opted for them?

What then are the alternatives available to ensure that remuneration levels interface with productivity and labor market flexibility allows a greater degree of response to changing parameters? There are two basic approaches to this problem; these can be labeled the conventional solution and the classical solution.

The conventional solution, which is discussed in many political circles and finds support among some reputable economists, calls for (i) an increase of nominal wages to induce additional demand, (ii) a shortening of the working hours to allow new jobs openings to be created and (iii) active labor market policies to redeploy and reintegrate the

unemployed. These three measures have two things in common: they do not "solve" anything and they are of stop-gap nature.

Let us turn now to the classical solution. The main difference vis-à-vis the conventional solution is not between the goals themselves - both aim at creating more jobs -, but rather between how effectively the goals are approached. Conventional wisdom does not approach the factor determining the demand for labor, i.e. what it costs. Furthermore, whereas conventional wisdom says but little about the competitiveness of the jobs to be created the classical approach aims at creating internationally competitive jobs; this is imperative in open economies facing continuous changes in the international division of labor. What sort of measures can be introduced to achieve this? Keeping in mind the above mentioned negative impact of the measures influencing the labor market, it would seem logical to focus on the role of those institutions whose intervention into the functioning of the labor market has caused problems to occur - i.e. the government and unions.

A P P E N D I X

Methods and Sources for Basic Data in Diagram 1

Unemployment, its Determinants and the Economic Environment
Selected OECD Countries 1960-1980

Unemployment rates

Data excerpted from Sorrentino (1978, Table 3) and Moy (1982, Table 2). These unemployment rates are - as opposed to using only national sources - comparable with one another.

Wage/productivity index

Wages/employee - including fringe benefits - taken from Argumente zu Unternehmerfragen (5/1982). For 1960 and 1965 data from OECD National Accounts (compensation of employees). Productivity calculated from OECD National Accounts (value added) and OECD Labor Force Statistics.

Government share

Excerpted from OECD Economic Outlook, June 1982, Table R 8. It is total outlays of government as percentage of GDP.

Profit rate

Excerpted from Seidel (1983, pp. 290-293). It is the ratio of net entrepreneurial income to net assets.

GDP

In constant prices, taken from OECD National Accounts.

The symbols represent the variables:

$ERERC^i$ = effective real exchange rate changes for country
i between time t and t + n vis-a-vis countries
j = 1...m

ER = exchange rate

IM = total world imports¹

IM^i
 IM^j = total imports¹ for countries i and j

EX = total world exports¹

EX^i
 EX^j = total exports¹ for countries i and j

p^i
 p^j = export price index for country i and j.

The first part of the expression - A_1 - represents the ERERC for exports of country i; the second part of the expression - B_1 - represents the ERERC for the imports of country i. A_2 and B_2 are the export and import shares respectively for country i (% of sum of exports plus imports) with which both parts are weighted to produce ERERC for total foreign trade.

The sixteen countries used in the calculation are: Austria, Belgium, Canada, Denmark, Finland, France, Germany, Great Britain, Italy, Japan, Netherlands, Norway, Spain, Sweden, Switzerland and United States.

The data has been taken from IMF International Financial Statistics.

¹Average for years 1975 and 1976.

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