

**Monitoring the Labour Market: a Proposal for a  
Comprehensive Approach in Official Statistics  
(illustrated by Recent Developments in France,  
Germany and the U.K.)**

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**MONITORING THE LABOUR MARKET:  
A PROPOSAL FOR A COMPREHENSIVE APPROACH IN OFFICIAL  
STATISTICS (ILLUSTRATED BY RECENT DEVELOPMENTS IN  
FRANCE, GERMANY AND THE U.K.)<sup>1</sup>**

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This paper analyses the weakness in labour demand which appeared in 1973-78 in France, Germany, and the U.K. and attempts a comprehensive assessment of it. Hitherto, the situation in labour markets has usually been measured by official figures of the registered unemployed which tend to understate unemployment itself and neglect other dimensions of labour slack, such as reversal of previous migration flows or declines in labour force participation or in working hours which may contain highly significant cyclical movements cushioning unemployment.

The report proposes the adoption of a more comprehensive concept for labour market monitoring, along lines already used in the annual reports of the German Institute of Employment Research. Such an approach presents advantages in economic and labour market policy analysis. A simplified form of the proposed monitoring tables is presented in Annex Tables F-1 to F-4, G-1 to G-4 and U-1 to U-4. They can be considered as a potential satellite to existing national accounts.

It is also suggested that analysis of the degree to which labour potential is used be conducted on a regular basis. The possibilities of this approach are outlined in considerable detail in Section V and in the annex. The different dimensions of the use-of-potential account are summarised in Table 3.

The report contains a review of the literature on the full employment rate of unemployment and its components. This is one of the major issues on which a judgement must be made in use-of-potential analysis. This review is presented in Section VI of the report.

It emerges from the analysis that Germany had the biggest labour slack (8.6 percent of potential) in 1978 though its unemployment rate (3.8 percent of the labour force) was the lowest of the three countries.

**I UNEMPLOYMENT IN THE 1970s**

Since 1973, unemployment has re-emerged as a major social problem for the first time in the postwar period. In the three biggest EEC countries, it averaged less than 2 per cent of the labour force in 1960-72, but by 1977-78 was more than 2½ times as big and involved 3.8 million people. Higher rates of unemployment have persisted long enough (six years) to be regarded as a chronic rather than a

TABLE 1  
UNEMPLOYMENT AS A PERCENT OF THE TOTAL LABOUR FORCE

	1960-72	1973	1974	1975	1976	1977	1978
France	2.0	2.7	2.8	4.1	4.5	5.0	5.2
Germany	0.8	1.0	2.2	4.1	4.1	4.0	3.8
U.K.	2.9	2.9	2.9	4.1	5.6	6.2	6.1
Arithmetic Average	1.9	2.2	2.6	4.1	4.7	5.1	5.0

<sup>1</sup>This study was made possible by a grant from the research programme of the Directorate General for Social Affairs of the Commission of the European Communities. The estimates for France were made by Roland Granier. Practical help and comments were received from a number of persons including I. Byatt, J. Dixon, W. Driehuis, J. M. Evans, B. Grais, M. Hargreaves, T. Kavanagh, S. Kuipers, D. Lal, R. Layard, J. Mark, J. Odling Smee, G. Penrice, G. L. Reid, L. Reyher, A. D. Roy, M. F. Scott, C. Sorrentino, J. Stern, R. Varley, and M. V. Wilde.

cyclical phenomenon. The big recession of the 1970s occurred in 1974–75, but unemployment persisted and even increased in the “recovery” years.

In fact, the rise in unemployment has been relatively modest, given the retardation in economic growth which has occurred. During 1973–78, output growth of the three countries averaged 2.6 percentage points a year below that of 1960–73. If one assumes that this shortfall in performance was due to demand conditions rather than to a fundamental decline in production potential, then the cumulative shortfall of output below potential by 1978 was around 13 percent (5 times the 2.6 point annual shortfall). In this context, the rise in the average unemployment rate from 1.9 percent in 1960–73 to 5 percent in 1978—a shortfall of only 3.1 percent—is relatively modest.

TABLE 2  
G.D.P. GROWTH RATES  
(Annual average compound rates of growth)

	1960–73	1973–78	Difference in Growth Rates in the Two Periods
France	5.5	2.8	–2.7
Germany	4.5	1.9	–2.6
U.K.	3.1	0.8	–2.3
Arithmetic Average	4.4	1.8	–2.6

The rise in unemployment has been lower than could legitimately have been expected, partly because governments have tried to mitigate the social impact of their cautious macroeconomic policies by diverting labour slack into channels other than overt unemployment. These policies have been most vigorously pursued in Germany, where three other dimensions of labour slack are clearly significant in relation to the officially registered unemployment of 993 thousand in 1978:

- (a) The previously large inflow of migrant workers has been reversed following the *Anwerbestopp* of November 1973. In the five years 1973–78, the foreign labour force in Germany fell by 0.6 million, whereas in the preceding five years it had risen by 1.5 million;
- (b) People were encouraged to withdraw from the labour force by schemes to promote early retirement or to retain young people in education and training. The officially financed German Institut für Arbeitsmarkt und Berufsforschung (IAB) in Nuremberg estimates that the *Still Reserve* (reserve of discouraged workers) amounted to 642 thousand in 1978;
- (c) The German authorities encourage work sharing by paying unemployment insurance for those working short-time.

## II REASONS FOR A MORE COMPREHENSIVE ANALYSIS OF LABOUR MARKET DEVELOPMENTS

In view of these developments it is not surprising that German labour market analysis has moved beyond the rather myopic preoccupation with unemployment characteristic in other countries. There are several advantages in establishing a

broader set of labour market accounts even in countries where the labour market policy menu is less rich than in Germany:

- (a) It can help identify the nature of the existing economic situation more clearly;
- (b) It can improve the clarity of national policy analysis. This is particularly necessary in the labour market field where new policy initiatives have mushroomed since 1973, and where conflicts of objective between macro (deflationary) and micro (job creating) instruments are obviously likely to arise;
- (c) It can facilitate international comparison of both policy problems and policy options, particularly in situations where the national policy-mixes vary a good deal, e.g. where Germany has more labour slack than the U.K., but a lower unemployment rate;
- (d) It can help improve the sophistication of economic forecasting;
- (e) It can improve the analysis of productivity trends and the accuracy of international comparison of productivity levels;
- (f) It can improve the quality of academic research which in the past has concentrated very heavily on unemployment as a labour market indicator to the exclusion of other elements of labour slack, e.g. in Phillips curve analysis, or in the new monetarist emphasis on the natural rate of unemployment;<sup>2</sup>
- (g) The process of merging manpower data from different sources into a coherent accounting system will provide new crosschecks on the accuracy of previous estimates and stimulate wider use of the EEC Labour Force Sample Surveys;
- (h) Better manpower accounts provide a major contribution towards a wider system of regular socio-demographic monitoring which can illuminate many social policy issues, e.g. the extent to which behaviour patterns are altered by increased levels of social benefit.

### III THE NATURE OF THE PRESENT PROPOSAL

The present proposal for refinement of official labour market analysis has two components.

#### *The Monitoring Account*

(a) A proposed set of annual accounts merges data from different sources to analyse labour market developments in a comprehensive framework which takes account of both the demographic context and changes in working time per person.

<sup>2</sup>The Phillips curve is that showing the relation between the unemployment rate and the rate of increase in money wages, see A. W. Phillips, *The Relation Between Unemployment and the Rate of Change of Money Wage Rates in the United Kingdom, 1861-1957*, *Economica*, November 1958. The natural rate of monetarist theory is the rate of unemployment at which the consumer price index is neither accelerating nor decelerating. There have been some earlier efforts to use broader measures of labour slack on lines similar to the present approach, e.g. by R. J. Gordon, *The Recent Acceleration of Inflation and Its Lessons for the Future*, *Brookings Papers on Economic Activity*, No. 1, 1970, p. 21; J. Taylor, *Unemployment and Wage Inflation*, Longman, London, 1974; and D. Lal, *Unemployment and Wage Inflation in Industrial Economies*, O.E.C.D., Paris, 1977.

The different components when multiplied are equal to the total labour input used to produce gross domestic product. The proposed accounts are simply a merger of existing manpower statistics and a recommendation for their use in the same spirit which applies in the national accounting field. The proposal may be regarded as adding a labour input "satellite" to the national accounts.

#### *"Use of Potential" Accounts*

(b) The second proposal is more ambitious than the first. It carries the analysis further, in a direction quite familiar in ministries responsible for macro-economic policy since Okun first popularized the idea of measuring lapses from potential output in 1962.<sup>3</sup> As in all contra-factual propositions the major conceptual difficulty in "use of potential" analysis is in establishing what is "normal." This is obviously an area in which judgements can differ. The present paper makes suggestions in four areas: "normal migration," "normal activity rates," "normal hours," and "normal unemployment rates." There is already a huge academic literature on the fourth topic, a rapidly burgeoning one on the second issue, and major political discussion on the first. Nevertheless it seems useful to review the literature on these issues, and to assess the possibilities of formulating a policy-institutional view of normality (as distinct from a more statistical deviation-from-trend analysis). The third point, on normal hours, has perhaps been the most neglected in the past, but further statistical progress is quite feasible and integration of this dimension into a coherent accounting framework can be most illuminating.

### IV THE MONITORING ACCOUNT

#### (a) *Demographic Context and Activity Rates*

The first table in the monitoring accounts (Annex Tables F-1, G-1 and U-1) simply sets labour force developments in a demographic context, showing activity rates by sex. In this table no age breakdown of the labour force is given although there are appreciable differences in the movements and level of activity rates for different groups. The main point is to show the trend in activity rates and to reveal the possible presence of cyclical variations, e.g. the phenomenon of workers "discouraged" or "added" during recessions. In Germany, there has clearly been an unusually large fall in male activity in the 1970s, and a less marked dip in activity for women, which the IAB has interpreted as an indication that people who really want work have stopped looking for it. In France and the U.K. it is difficult to discern any cyclical component in activity rates, though the longer term movements (up for females and down for males) are remarkably clear.

Changes in activity rates are of great significance in labour market analysis, and Tables F-1, G-1 and U-1 present one of the simplest approaches available. Apart from further specification by age group one could usefully have break-

<sup>3</sup>See A. M. Okun, *Potential G. N. P.: Its Measurement and Significance*, American Statistical Association, 1962, *Proceedings of the Business and Economics Section*.

downs by marital status and family responsibility, with categorisation of reasons for nonactivity (such as are derived from some labour force sample surveys). In spite of the burgeoning literature on this topic,<sup>4</sup> it is not current official practice in the U.K. to supply labour force figures in a demographic context. This is not done in the monthly *Gazette*, or in the annual *British Labour Statistics*. It should also be noted that the IAB's published analysis on this topic is still rather skimpy for Germany. The presentation proposed here is not at all novel in official circles. It has been followed in OECD's *Labour Force Statistics* for two decades, and is also used in the summary presentation of the results of the EEC Labour Force Sample Survey by Eurostat.

There are a few problems concerning the scope of the labour force and employment figures which are worth noting. In the U.K., unpaid family workers are thought to be so negligible that no attempt is made to include them in the labour force estimates. The U.K. is the only EEC country which does not ask questions about family helpers in the EEC Labour Force Sample Survey. In France and Germany the 1975 EEC Survey showed more than a million such people (4.3 percent of the German labour force and 5.1 percent in France). The smallest EEC share of such workers was in the Netherlands (1.9 percent). In France and Germany about two thirds of family workers are in agriculture, and it is plausible that the U.K. situation differs here because U.K. agriculture is much smaller, and is characterised by capitalist rather than peasant modes of production. However, it is difficult to believe that family enterprise in the service sector in the U.K. differs so drastically from continental practice, so there may well be 250 thousand unrecorded family workers in the U.K. service sector. It is sometimes argued that the U.K. tax system inhibits unpaid family activity but it is not clear that the U.K. tax/social security situation is so unique. It should be noted that the 1975 EEC survey records only 1.06 million family workers in Germany, whereas the IAB includes 1.42 million such workers in the same year. The trend of unpaid family activity is sharply downward. In Germany there were 2.2 million females in this category in 1960 and 1.1 million in 1978. If they were to be excluded from the German labour force, the female activity rate would have shown a rise from 38 percent in 1960 to 43 percent in 1978 instead of the static level actually recorded.

Another point to be noted is that the U.K. official statistics on labour force and employment refer to job holders rather than persons. Multiple job holders are counted for each job they hold. The 1975 EEC Labour Force Sample Survey showed 1.6 percent of persons having a second activity as a proportion of persons with a main occupation in the U.K. In France and Germany, the figures used here appear to refer to persons rather than jobholders. It would not be difficult to adjust the U.K. figure to refer to persons rather than jobs. No adjustment is made here, because the British figures on hours also refer to hours per job rather than hours per person, so the overstatement of employment is offset by lower hours per head in arriving at the ultimate estimate of total hours worked.

<sup>4</sup>The most substantial work in this field is W. C. Bowen and T. A. Finegan, *The Economics of Labor Force Participation*, Princeton, 1969. A recent survey of the literature can be found in C. Greenhalgh and K. Mayhew, *Labour Supply in Great Britain: Theory and Evidence*, Treasury/DE/MSU Conference, Oxford, 1979.

Finally, it should be noted, *pro memoria*, that in all three countries, the burden of tax and social security payments is such as to produce a growing incidence of illicit labour force activity on tasks which are quite legal, but carried out illicitly for tax avoidance reasons. It is not easy to estimate the importance of this phenomenon which is also likely to be excluded from the national accounting definition of output, but semi-official guesses are in the range of 3.5–7.5 percent of the labour force.<sup>5</sup>

(b) *Stock of Migrants and Their Labour Market Characteristics*

Explicit inclusion of international migratory movements in the labour market accounts is obviously desirable in countries where their role is significant and where migration control is an instrument of labour market policy. In the U.K., there have been relatively big flows both in and out of the country, but most migrants have been settlers.<sup>6</sup> Migration controls are now substantial but have not been used as an instrument of labour market policy. Hence table 1b has not been included in the proposed monitoring account for the U.K., whereas it is for both France and Germany.

German immigrants are mostly “guestworkers” and their families, whose sojourn is considered to be temporary in principle. The flow has been closely controlled in the past by official policy in line with the labour market situation. Even if the 1973 restrictions are regarded as permanent, a quarter of the migrants in Germany are from EEC countries who are legally free to come and go as they please. Their number fell substantially from 1973 to 1978 (by about 200,000), but would obviously rebound if the labour market situation improved.

In France, the situation is different from that in both the U.K. and Germany. Many of the immigrants are from countries which were once French colonies but their legal status in France is different from that of Commonwealth citizens in the U.K. and their motives for migration are more mixed. Some intend to stay permanently and become naturalized as French citizens, but a larger proportion intend to return to their home country eventually even though their stay in France may be quite lengthy. In the period 1962–75, the increase in the number of French citizens by naturalization was only 110,000. French government policy on migration has been varied in line with the labour market situation, but not so strictly or effectively as in Germany, and the number of foreign workers did not show cyclical influences until 1978. In a situation where the gross flow of migrants is large, restrictions may not work as intended if they induce a lower number of exits as well as entries. There may also be a bigger phenomenon of illegal entry and unregistered activity in France than Germany. The 1975 census showed a foreign

<sup>5</sup>The *International Herald Tribune* of 27 July, 1979, carried an article “Moonlighting: British, Italian Style”, which quoted the chairman of the Board of Inland Revenue’s estimate that the black economy represents 7.5 percent of the U.K. G.N.P. An article of 26 July on the same theme quotes M. Stoleru in a context which suggests that the equivalent of 800,000 persons in France are engaged in *travail noir*.

<sup>6</sup>The only substantial number of EEC migrants in the U.K. labour market are those from the Irish Republic and the cyclical element is important in this case, see B. M. Walsh’s model of the Irish labour market and its sensitivity to U.K. unemployment and to the relative level of unemployment benefit in the two countries in H. G. Grubel and M. A. Walker, *Unemployment Insurance*, Fraser Institute, Vancouver, 1978.

labour force 10 percent higher than the annual survey. A smaller proportion than in Germany are from EEC countries (about 200,000 workers which is 13 percent of the foreign labour force).

(c) *Employment Rates by Sex*

Tables F-2, G-2, and U-2 show absolute figures for employment and unemployment and employment rates. For France and the U.K. it was felt necessary to use adjusted unemployment figures rather than the usual official figures on registration that were used for Germany. The French registration series is misleading because the coverage of unemployment insurance has increased a good deal in the past fifteen years, and U.K. unemployment insurance excludes a good many married females who can opt out of insurance.

The problem of standardized unemployment measures has been treated in great detail by C. Sorrentino, *International Comparisons of Unemployment*, U.S. Bureau of Labor Statistics, 1978. Sorrentino kindly supplied unemployment estimates for the U.K., and the French unemployment figures were also reworked to conform to the standardized ILO definition, as described in the notes to Table F-2. In the case of France, the official registration series is now wide enough in coverage so as to present few problems. In the U.K., the divergence between the definition proposed here and present official practice is more substantial. The U.K. has hitherto shown official reluctance to widen its official unemployment estimates,<sup>7</sup> and there are those who would argue for a move in a different direction than is proposed here, were a change envisaged.<sup>8</sup> Perhaps there would be less of a problem of new definitions in the context of an annual comprehensive review of labour market trends than if such a proposal were directed at modification of the present monthly official indicator. In any case, presentation of the proposed monitoring account incorporating the present U.K. official definitions of unemployment would still be a useful exercise.

(d) *Annual Working Time Per Person*

This is the area in which the greatest detail is presented in this proposal. It is an area rather neglected in the past, but one in which substantial further refinement is possible. Tables F-3, G-3 and U-3 show the allocation of days in the year with an eightfold breakdown explaining days not worked. The first three columns are self-explanatory. There is a difference between the assumption on Saturday working for Germany and the other two countries. In Germany, IAB assumes that half day Saturday working was universal in 1960 and was gradually and totally phased out by 1970. For the other two countries it is assumed that Saturday was a free day throughout, though there was probably some Saturday working in the 1960s, and it has not completely disappeared even now in any of the countries. However, error on this score does not affect the final calculation of labour input, as weekly hours are reduced to a daily basis by dividing by 5.

<sup>7</sup>See *Unemployment Statistics*, Report of an Inter-departmental Working Party, HMSO 1972 (Cmnd. 5157).

<sup>8</sup>See J. B. Wood, *How Little Unemployment?*, IEA, London, 1975.



Another assumption about Saturday work would simply mean division of weekly working hours by a different denominator.

The fourth column refers to statutory public holidays which are assumed to be 100 per cent effective in reducing work time in France and the U.K., i.e. if they fall on weekends, they are assumed to be matched by compensatory reductions elsewhere in the week. In the case of Germany, where there are more public holidays, IAB assumes no compensation for public holidays which fall on weekends, and we have followed IAB practice.

Column 5 on days of vacation is pieced together from various sources, but there seems no doubt about the order of magnitude of absence from this cause or its rising trend.

Column 6 on absence through sickness, accidents and pregnancy is based on days of certificated absence which are available from social security sources, and does not cover periods of non-certificated sickness which are not negligible, but have probably declined in magnitude as more people are covered by sickness insurance schemes. The source notes give some indication of the information available on non-certificated absence from various surveys, but at this stage, there did not seem to be sufficient evidence to warrant an estimate here.

Column 7 on days lost through bad weather was only available for Germany, where bad weather compensation is payable in the construction industry. An entry of 1 day was made for France throughout as no figure was available. It was assumed to be less than in Germany as the German system of bad weather money seems likely to encourage time lost for this reason. For the U.K. bad weather time losses are covered by the short-time column of Table U-4.

Column 8 on absence for personal reasons was available annually only for France. For Germany, such absences are caught by the hours data of Table G-4 where overtime hours are measured on a net basis. For the U.K., a 2 day loss per year was assumed throughout on the basis of limited survey evidence.

Column 9 on time lost through industrial disputes, was available for all countries, and is generally a negligible item, apart from the May 1968 losses in France.

Tables F-4, G-4 and U-4 show average hours worked per day unaffected by absence (except as noted for Germany). For the U.K. and Germany it was possible to get a breakdown of basic hours, overtime and short-time working and the impact of part-time workers on the total. For France, this detail was not available. Data on working hours are usually only available for a short period of the year. In the British case, the most comprehensive source, the New Earnings Survey, refers only to one pay period in April, so the figures may not be as representative as might be hoped.

In all cases, the working hours figures used here refer to wage and salary earners and not to all persons employed. In 1977, wage and salary earners were 83 percent of persons employed in France, 85 percent in Germany and 91 percent in the U.K. There are several surveys which provide figures on working hours of the self-employed and family workers, e.g. the Eurostat Labour Force Sample Surveys (see 1975 edition, p. 106). These are invariably higher than for wage and salary earners, but they are not available as a regular time series for France and the U.K. and are probably less reliable as hours of such people are less subject to control, less regular and the boundaries of work and leisure are vaguer.

In the case of the U.K., the hours figures, like the employment figures, refer to the average per job holder, not per person in the labour market, i.e. they include people more than once if they have more than one job. This lowers average hours, but there is an offsetting exaggeration of employment.

## V "USE OF POTENTIAL" ACCOUNTS

### *Potential Population*

The most logical starting point for the "use of potential" accounts is the possible divergence between actual and potential population. In France and Germany, both the nature of the immigrant population and of government policy on migration are likely to make the size of population vary for cyclical reasons, and in both these cases it seems worthwhile to analyse deviations between actual and potential population, though IAB does not do so.

In Germany, the cyclical character of migration was obvious in 1967-68, when the previous rapid rise in the proportion of foreign workers was reversed, and the absolute number of foreign workers fell by more than 200,000. In the two years following that recession, the number of foreign workers rose by 800,000 as job opportunities increased. In the period of recession and slow growth since 1973, the proportion of foreign workers has fallen from 9.6 to 7.7 percent of the labour force. It is, of course, difficult to say what the potential is, because there are different bases for such a judgement, e.g. what would it have been without the 1974-75 recession, or what would be in future if economic policy were to become more expansionary. It may well be that German policy on non-EEC migration has changed on a long term basis, but EEC migration is important, will grow if the EEC is enlarged, and a country with negative natural population growth and a high per capita income will remain attractive to immigrants. We have therefore assumed that, without the recession, the foreign labour force would have remained at its 1973 level, and that a major expansion in economic activity could easily induce a return to this level which is only 550,000 higher than the 1978 level. The gap in foreign working population is therefore assumed to be the difference between the 1973 level and the actual level.

For France, the data situation is weaker than for Germany, and as already explained, the cyclical sensitivity of population is smaller. We have assumed that there was a shortfall of population below potential only in 1978, and that the proportion of foreign workers in the labour force would have reached 7 percent instead of 6.7 percent in that year, in the absence of government policy to restrain migration.

### *Potential Activity Rate*

Job shortage in recession may spontaneously induce a "discouraged worker" phenomenon, and governments may also promote exits from the labour force by policy measures to facilitate early retirement or to widen training opportunities. This has certainly occurred in both France and Germany. On the other hand a serious recession may have the converse effect of inducing labour market entry by

secondary workers (e.g. married women) in households whose incomes are likely to be or are threatened by unemployment or short-time working of the primary income earner. This is what Woytinsky called the "added" worker phenomenon, which seems to have predominated in the U.K. and France.

There is little doubt that a greater disaggregation of activity rates by age group would show offsetting discouraged and added worker phenomena in France and the U.K., but in the present paper we simply note that, overall, the net change over the period covered in these two countries was not negative. In Germany, by contrast, where measures to promote early retirement and encourage education were rather firmly pursued, and where the social climate and trade union attitudes encouraged departures from the labour force, the decline in activity rates for males was rather noticeable in the recession and after.

The IAB has made rather detailed calculations of normal activity rates, and has arrived at estimates of the net stock of discouraged workers by allowing for the impact of demographic and institutional factors as well as special *ad hoc* policy measures. The detail of the IAB calculations has not been published. The IAB estimates start from the premise that the stock of discouraged workers is zero in years of peak economic activity, the peak being defined in terms of the year of minimum unemployment. For IAB the peak year was 1970, rather than 1973 as we have taken here, so that they assume Germany to have entered the 1973-78 period of slower growth with a margin of discouraged workers. Our own assumption treats 1973 as the pre-recession peak for all the three countries under review. Our estimates of potential activity rates are based on simple extrapolation of the clear downward movement which took place between 1963 and 1973 assuming these to be business cycle peaks.

#### *Potential Employment Rate*

There is a huge literature on the "full employment rate of unemployment," which is analysed in Section VI. The position taken here is that there has probably been some lengthening in the normal duration of job search, and hence of unemployment levels, as a result of increased social security benefits and the increased levels of wealth which have accompanied economic growth. Hence, it is suggested that the "normal" level of unemployment in conditions of high demand in the 1970s was higher than the minimum levels of the 1960s. However, "neo-structural" arguments which have been used to explain 1970s levels of unemployment as normal, are rejected. As a matter of pragmatic convenience, it is simply assumed here that the 1973 rates of unemployment, i.e. the immediate pre-recession peak level, constituted the level potentially attainable, and that divergences from this level represent the unemployment gap.

#### *Potential Working Hours Per Person Employed*

Worksharing by reduction in hours worked per person has been an objective of policy in both France and Germany where unemployment insurance permits compensation for part-time unemployment. In addition there is some spontaneous work-sharing by collective agreement or entrepreneurial decision, and such a work-sharing arrangement is often preferable to dismissing workers, now

that workers' rights to redundancy compensation have been greatly enhanced. Working time can be shortened in several ways, e.g. by shorter hours per week, by reducing the number of weeks worked, by increasing public holidays or vacations. Monitoring the full impact of changes in time worked is statistically a difficult job, and it is clear that officially compensated short-time working is only part of the problem. It is difficult to distinguish involuntary from voluntary cuts in working time, particularly when the long term trend in working hours is so obviously downward in all three countries. However, the fact that working time per person continued to decline quite sharply in this period when real income increases were rather modest, does suggest that some of the reduction was of a cyclical character.

In the case of Germany and the U.K., figures are available in some detail, which permit a differentiation between basic hours of full-time workers, the hours of part-time workers, overtime and short-time working. We have assumed for these two countries that the gradual reduction of basic hours in the 1970s and the increasing role of part-time workers were a continuation of long term trends and

TABLE 3  
RATIO OF ACTUAL TO POTENTIAL LABOUR INPUT AND ITS COMPONENTS

	A Ratio of Actual to Potential Population of Working Age			B Ratio of Actual to Potential Activity Rate		
	France	Germany	U.K.	France	Germany	U.K.
1973	100.00	100.00	100.00	100.00	100.00	100.00
1974	100.00	99.82	100.00	100.00	99.26	100.00
1975	100.00	99.18	100.00	100.00	98.37	100.00
1976	100.00	98.69	100.00	100.00	97.77	100.00
1977	100.00	98.53	100.00	100.00	97.47	100.00
1978	99.64	98.48	100.00	100.00	97.91	100.00

  

	C Ratio of Actual to Potential Employment Rate			D Ratio of Actual to Potential Hours Worked Per person		
	France	Germany	U.K.	France	Germany	U.K.
1973	100.00	100.00	100.00	100.00	100.00	100.00
1974	99.90	98.79	100.00	99.54	98.95	97.58
1975	98.56	96.87	98.76	98.37	97.18	97.21
1976	98.15	96.87	97.23	98.12	97.88	98.21
1977	97.64	96.97	96.58	97.87	97.53	99.10
1978	97.43	97.17	96.67	97.63	97.52	99.23

  

	E Ratio of Actual to Potential Labour Input		
	France	Germany	U.K.
1973	100.00	100.00	100.00
1974	99.43	96.92	97.58
1975	96.96	91.87	95.96
1976	96.34	91.54	95.49
1977	95.53	90.86	95.71
1978	94.72	91.41	95.91

that the cyclical influence was confined to the reduction of net overtime below its 1973 level. This is a modest assumption in the case of Germany, as net overtime was smaller in 1973 than in 1970, and there was a somewhat large drop in basic hours in 1974-75.

In the case of France, information on overtime and short-time working was inadequate and we take the deviation of working hours per person in 1973-78 from the 1963-73 trend as an indicator of the cyclical shortfall.

The basic data on days worked per year in Tables F-3, G-3 and U-3 are presented in considerable detail, but no use of this table is made here for "use of potential" analysis. For Germany, the IAB has noted a perverse cyclical movement in sickness absence. This happens partly because people are scared of losing their jobs for malingering in times of slack demand, and hence cut down on sickness absence for cyclical reasons. Another reason may be that the people who are normally most prone to sickness absence are those most likely to be unemployed or to leave the labour force in recessions. There is some evidence of the same phenomenon in France. Unfortunately the quality of U.K. information on sickness absence deteriorated from 1974 onwards, so it is less easy to monitor the situation there very accurately. For this reason, we have taken no account of possible cyclical movement in sickness absence in the present estimates.

#### *Ratio of Total Labour Input to Potential*

Table 3 summarises the results of the "use of potential" analysis. The difference between this approach and the traditional unemployment indicator can be seen by comparing part E of the table with part C. In 1978, the difference between the actual unemployment level and the full employment (1973) level was similar in the three countries, ranging from over 3 percent in the U.K. to over 2.5 percent in France (see last line of part C). In part E of the table, much wider variation in the country situations emerges. The overall labour slack was about 4 percent in the U.K., but 8.6 percent in Germany. Hence this approach suggests a much bigger slack in Germany, and much greater scope for expansionary policy, than would traditional reliance on the unemployment indicator. The relative importance of different components in the labour market situation vary a good deal between countries. In Germany, all four items, A, B, C and D, play a significant part. In the U.K. only two items are significant. The timing in the course of the cycle is also worth noting. In the U.K., cuts in working time absorbed the first shock of the recession, unemployment took more of the slack in 1976-78. In France and Germany the pattern was different.

It should be noted that the use-of-potential analysis presented here is only illustrative. More sophistication, more detail, and different judgements are all feasible. In national analysis, more detailed probing should be possible by age and sex, and other items may be treated as cyclical which are ignored here, such as sickness absence, Anglo-Irish migration etc. The analysis of causality in variation of activity rates could also benefit from integration into a wider system of socio-demographic monitoring which included factors governing entry and exit into education, retirement decisions, and the role of women in the economy. It is quite possible to conduct the analysis with different assumptions about what constitutes full employment.