SOCIAL SECURITY EXPENDITURE AND DEMOGRAPHIC FACTORS IN THE COUNTRIES OF THE EUROPEAN COMMUNITY 1965 - 1995

by Mario Alberto COPPINI

Professor at the University of Rome

This survey was completed in 1980. The date of publication was determined by printers' schedules.

Studies Collection

Social Policy Series

Brussels, 1980

R32

FOREWORD

Under Articles 117 et seq. of the Treaty of Rome, the Commission has the task of taking a certain number of measures with a view , in particular, to promoting the harmonization of national social policies.

Studies carried out at Community level can make a contribution to the achievement of this objective by focusing attention on the common problems arising in the various Member States.

One of these problems, the changing structure of the population, has a fundamental influence on the future development of social security systems. For this reason, the Commission set up a working party to study this problem. This working party, which consists of independent experts, instructed one of its members, Professor M.A. COPPINI of the University of Rome, to express the effects of these demographic changes in quantitative terms. The resulting study is published here.

We are all familiar with the work carried out by the Statistical Office of the European Communities in connection with the "Social Accounts", and with the medium-term forecasts of social expenditure published by the Commission ("European Social Budget"). There are also demographic projections at international and Community level. However, there had not hitherto been any attempt to link them all. This study is a preliminary attempt to remedy this omission by calculating,on the basis of existing population projections, the effects of such trends on social security expenditure up to 1995. It is not, therefore, merely a qualitative assessment, but expresses the results in numerical terms.

Another original characteristic of the study lies in its methodology. The author explains this in his introduction. Let it simply be stated here that this methodology gives rise to the construction of indicators (expressed in percentages of the GDP) which allow instant comparisons both in time and between countries. In addition, comparisons are made more striking by the

fact that the study is based not on existing legislation but on a system of conventions identical for all countries, drawn from the Council of Europe's "European code of social security". Admittedly, this choice gives a schematic representation of the actual situation but by neutralizing the peculiarities of national systems in this way, it gives the greatest prominence to demographic factors.

The lessons to be drawn from this exercise are twofold. Firstly, the results of the calculations confirm that one cannot underestimate the influence of population structures on social security expenditure. Secondly, they show that this influence will be felt to a varying extent in the years to come in the various Member States and in the different branches of social security. Figures for these findings, and detailed comments on them, are contained in the conclusions on the survey.

These lessons should help to point the way for policy decisons. In spite of the simplified methods, in spite of its shortcomings, the survey constitutes a useful contribution to the assessment of a phenomenon which, in the years to come and particularly after 1985, will have unavoidable effects on social security policies. In this respect, the choice of alternative assumptions concerning the age of retirement and level of unemployment will be appreciated.

One final feature of this work should be noted : the fact that it results from cooperation between international institutions. This study was able to draw upon discussions held originally in the Council of Europe but limited to pensions. Extending the initial approach, it in turn proposes a methodology which, while applied at Community level, could also be extended to the situation in other European countries.

The Community institutions disclaim all responsibility in connection with the survey, which was drawn up by an independent expert.

CONTENTS

I. INTRODUCTION

I.1 General background

Demographic factors in the broad sense of the word are undoubtedly less important im bringing about changes in social security costs, in the short term, than other factors such as fluctuations in income in real or monetary terms and legislative changes.

On the other hand, demographic factors are unquestionably inflexible, and it is precisely because they emerge slowly and almost independently of the other factors causing costs to rise that their true impact upon social security costs is frequently underestimated.

Another feature of population trends is that they affect different branches of social security in different ways; the outcome of such trends may be a reduction or increase in overall costs.

To explain this statement, the meaning of the term "demographic factors" as used in this report should be clarified from the outset.

Strictly speaking, demographic factors consist of changes occurring in the structure of population, in terms of the age and sex of the members of the population covered by social security.

Other factors may be taken into account or disregarded, depending on the conventions which may be formulated from time to time.

In this report, changes occurring in the working population have also been regarded as demographic factors, one of the main considerations being the effects of such changes on all persons who are entitled to some of the benefits payable to members of the working population (temporary disability and unemployment benefits).

If the funding aspect of social security is also being studied these changes become even more important, for it is well known that most of the funds for social security are derived from employers' and employees' contributions.

On the other hand, the decision was taken not to take other factors into account even though they are structural in nature and exert some influence from the viewpoint of social security: distribution based on marital status, for example, family composition, very elderly people or people requiring continuous attendance, etc. It was considered advisable to exclude these data because of the lack of detailed information for all countries and the need to simplify calculations.

Changes in the frequency of the contingencies covered by social security, on the other hand, may be regarded as an extension of the concept of demographic factors. Frequencies of this nature are, at least in part, the result of biometric characteristics of the people insured, and changes therein are are to be found almost consistently in every country in the course of time.

It is obviously open to discussion whether the latter type of factor should or should not be lumped together with demographic factors, especially in view of the fact that many causes of variations in those factors are associated with economic and social phenomena. As we shall see later, it is always feasible to separate the latter type of factor from the others. The broad definition used in this context simply serves to make the analysis more comprehensive without detracting from the explanatory value of the findings obtained therefrom.

I.2 Purpose and limitations of the survey

In the light of the comments set out in I.1, it is obvious that the study of demographic factors calls for medium- and long-term forecasts, especially on the structure of the population as a whole and the working population. These forecasts are normally based on protracted and laborious calculations and it will readily be appreciated that there has been only very limited room for the subjects in question in the many and invaluable studies on social security problems carried out at Community level.

Today, however, there are various good reasons for analyzing the problems in detail. The most noteworthy are the ever-increasing proportion of the social security budget allocated to old age pensions and survivors' pensions (a striking feature of the European Second/Social Budget) and the recent problem of a lower retirement age in several countries, with the consequent increase in costs.

The Council of Europe has recently completed two studies, both concerned with costs associated with old age[1], which have provided certain preliminary findings on the subject.

The Working Party on the Concertation of Social Protection Policies has decided that it would be opportune to deal with the same problem as it applies to other branches of social security to give an overall view of the effects of demographic factors (as that term is defined above).

---

(1) *See COUNCIL OF EUROPE "Report on the combined effects of the lowering of retirement age and the ageing of the population on the financing of social security schemes concerned with long-term benefits", Strasbourg 1976, and "The problem of the lowering of the retirement age: survey of costs", Strasbourg, 1977.*

This report sets out the findings of the study undertaken as a result of that decision.

The first point to be made is that the survey covers the nine Community member states and the following branches of social security:

old age
survivors
disability
family benefits
temporary disability (due to sickness or childbirth)
unemployment
health care

Benefits for industrial accidents and occupational diseases have not been included, since it would have been too expensive to analyze these forms of protection as well.

Because the scope of the survey is so wide, no specific demographic forecasts have been made. As explained in greater detail later, the forecasts contained in the first Council of Europe study have been used, supplemented for the purpose of this report with data for Denmark, Luxembourg and the Netherlands, as well as recent forecasts prepared for the Directorate General for Economic and Financial Affairs of the Commission of the European Communities (DG II).

On the other hand, a specific survey has been carried out to compile information on the frequency and percentage of given occurrences (disability, sickness), and some of the information from this survey is incorporated in Chapter III.

Use has been made of some of the Council of Europe's facts and figures arising from the application of international social security agreements, but only for verification; they are not quoted in the text.

For guidance on the limitations of this study, it should be added that the main method used has been to construct specific "indicators". Chapter II gives details of the indicators and describes the objectives pursued. It will be seen that the indicators are based on a simplified standard presentation of the social security systems in individual member states.

No true forecast has been made of the cost of the various forms of social security in the light of current legislation in each of the nine member states, since the work involved in projections of this kind would have been too costly and complex for the purposes of this study.

The final point is that the survey covers the years 1965, 1970, 1975, 1985 and 1995, and that not all the data required has been obtained from every country, so that some of the figures do not appear in the tables.

I.3 Contents of the report

The report is divided into four chapters, preceded by this introduction.

One of the first chapters describes the methodology used to construct the indicators, both for individual branches of social security and for the overall system. As stated, these indicators are the main analytical instruments.

Another chapter describes the bases for calculations and the estimates made to make up for missing data.

The following chapter sets out the main findings regarding the indicators and the other calculations.

The fourth and last chapter is devoted to the preliminary conclusions that can be drawn on the effects of demographic factors and their impact on social security costs in EEC member states.

II. THE INDICATOR METHOD

II.1 The "*coeteris paribus*" principle

The procedure consistently used in all scientific research when there is a need to isolate the effects of a given factor from the effects of other factors bringing about a phenomenon - in this specific case, the costs of a branch of social security or the cost of the whole social security system - is to assess the variations noted in the phenomenon by varying the factor whose effect is being sought while leaving the other factors unchanged; in other words, it is assumed that "all other factors are equal".

Social security costs are normally the outcome of three groups of factors:

- demographic factors, in the meaning defined in I.1;
- economic factors (changes in benefits as a result of the rising age of the population and provisions for adjustment of benefits in real and monetary terms);
- current legislation.

In the case with which we are concerned, the only way of isolating the consequences of demographic factors and assessing their influence is to estimate future social security costs on the assumption that economic and legislative factors remain unchanged.

If we accept this principle, which can be considered as perfectly proper for the purpose of factor analysis, a problem immediately arises whose solution requires that appropriate "conventions" be adopted. The problem consists of determining the "level" of the remaining factors which are assumed to be constant.

When reference is made to a single countries, the conventions normally adopted are fairly spontaneous and do not normally give rise to major objections.

It may be assumed that economic factors, for example, remain the same as at the time of investigation, both in terms of the age and individual incomes structure of the working population and in terms of general income trends as a result of real and monetary increases.

The same approach applies to legislation: it is assumed that it will remain unchanged over the period of time covered by the predictions.

When demographic factors relating to several countries are being analyzed and appropriate comparisons made, the two conventions described can of course be assumed with regard to each country, but the comparisons will be less significant because the "levels" of the economic and legislative factors differ from country to country.

This makes it necessary to resort to another convention: the same economic level and the same legislative level are selected for all the countries being studied. In essence, a single incomes structure is assumed; alternatively, appropriate rates are assumed - and these are the equivalent to the single incomes structure - by which individual incomes can be related to individual benefits; in addition, a set of legislative measures is selected to represent the "reference legislation" on the basis of which calculations are made.

This convention is obviously far less natural than the conventions customarily adopted when reference is made to one country alone. It is also obvious that as the common economic level of the different countries and the reference legislation varies the findings will differ.

Two points should be made on this subject:

- there is absolutely no way of circumventing this drawback unless the idea of making any form of comparison is discarded;
- in view of the degree of approximation normally required in research of this kind, the use of differing economic and legislative levels usually leads to only small changes in the findings. A further consideration is that the absolute values of such changes are less important than the relative indicators they provide, on which comparisons can then be based.

II.2 Simple and qualified indicators

Having described the general methodological criteria adopted in the construction of indicators, the various procedures used to determine those indicators should now be described.

Firstly, it should be pointed out that the indicator for each branch of social security is the ratio between the estimated expenditure on that branch in each individual year in the light of the reference legislation and the gross domestic product (GDP).

The indicator for the social security as a whole is the sum of the indicators for the individual branches.

Two separate types of indicators have been constructed, however, as follows:

- simple indicators, only take into account the variations in the general working population and are based on the frequency of contingencies covered by social security which are the same in every country;
- qualified indicators, whose special feature - not shared by simple indicators - is that they also take into account the specific frequency of such occurrences in each country and the trend in that frequency, except in cases described below.

The indices in question were first introduced and applied in a paper recently published in Italy(2).

As already mentioned, various criticisms could be made of the choice of indices as defined above, in the light of the conventions which have to be incorporated (choice of economic and legislative levels), but it would be difficult to avoid such criticisms even by using other indices or a different ananlytical procedure.

---

(2) *M.A. COPPINI, I fattori demografici e gli oneri della sicurezza sociale: un indicatore di struttura, a contribution to "Studi in onore di G. De Meo", Rome, 1979.*

On the other hand, the indices in question have certain indisputable advantages. In the first place, they are similar to the indices used for comparisons in the field of social security and for assessing the effects of social security costs on the economy of individual countries(3).

The indices have the advantage that they may be aggregated. In other words, the index for the social security system as a whole is the sum of the indices for its individual branches.

Finally, the two types of indicators - simple and qualified - can be used for a comparative assessment of:

- the effect of demographic factors in the strict sense of the term (the structure of the population as a whole and of the working population);
- the effect of demographic factors in the broad sense of the term (the frequency of contingencies covered by social security).

II.3 The main conventions

This section describes the main conventions used in working out the indices described in the previous section.

The three main criteria governing these conventions must be borne in mind:

1. gross domestic product per head of population $\left(\frac{GDP}{pop.}\right)$ has been chosen to represent average income for the purpose of calculating social security benefits;
2. the minimum benefits prescribed by the Protocol to the European Social Security Code has been taken as the average benefit rates;
3. it has been assumed that the persons covered by social security are all those persons who are liable to the individual risks.

---

(2) *For example, see the indicators used in the Social Accounts and the First and Second Social Budgets.*

(3) *See COUNCIL OF EUROPE, Protocol to the European Social Security Code, Strasbourg, 1974.*

The following specific conventions have been assumed:

OLD AGE

Benefits	pension: 45% of $\frac{GDP}{pop.}$
Beneficiaries	male and female population of or over retirement age.

SURVIVORS

Benefits	pension: 45% of $\frac{GDP}{pop.}$
Beneficiaries	widows under retirement age.

INVALIDITY

Benefits	pension: 50% of $\frac{GDP}{pop.}$
Beneficiaries	invalid persons under retirement age.

FAMILY ALLOWANCES

Benefits	allowance: 4% of $\frac{GDP}{pop.}$
Beneficiaries	boys and girls aged 0 to 18.

TEMPORARY INCAPACITY

Benefits	indemnity: 50% of $\frac{GDP}{pop.}$
Beneficiaries	working population under retirement age.

UNEMPLOYMENT

Benefits	benefit: 50% of $\frac{GDP}{pop.}$
Beneficiaries	working population under retirement age.

HEALTH CARE

Benefits	hospital treatment, general medical treatment and pharmaceuticals
Beneficiaries	entire population.

III. DEMOGRAPHIC BASES

III.1 The population structure

As stated in the introductory chapter, the main findings of this report refer to 1965, 1970, 1975, 1985 and 1995. The general population structure in terms of sex and age for the first three years in the list have been taken from the statistics published by individual member states. The figures for 1985 and 1995, on the other hand, have been arrived at by means of projections.

On the subject of these projections, it should be pointed out that various studies have been carried out at both national and international level and it has been necessary to select the data from the numerous studies available. Two sources were taken into account, both because of their homogeneous nature and because the periods at which their projections were formulated make them more reliable than others. The sources are:

(a) Council of Europe predictions in its study on the costs of old age pensions[5], where necessary supplemented by ad hoc monographs for Denmark, Luxembourg and the Netherlands;

(b) predictions formulated for the Commission in the context of a special study undertaken for the Directorate-General for Economic and Financial Studies. (DG II) (6).

---

(5) *See COUNCIL OF EUROPE, "Report on the combined effects of the lowering of the retirement age and the ageing of the population in the financing of social security schemes concerned with long-term benefits", Strasbourg, 1976.*

(6) *In fact the overall findings of this paper, as well as comments on the findings, are to be found in the EEC Commission publication, The economic implications of demographic trends in the European Community: 1975 to 1995, Brussels, 1978. Another research paper has been produced under the auspices of OECD, containing a compilation of predictions formulated at national level: OECD, The social and labour market implications of demographic trends, Paris, 1978.*

For this type of projection, the main hypotheses required are on mortality rates, the birth rate, emigration and - in the case of the working population - the employment rate. Each of the studies mentioned has adopted separate hypotheses for each of these four factors in each country. For the sake of brevity, we shall not set out the hypotheses but shall refer readers to the reports on the research in question.

To simplify matters, in the discussion that follows, the two sources are taken into account only when referring to 1985; one of the purposes in so doing is to evaluate the effects on the indicators of the various hypotheses on which the projections are based. When referring to 1995, on the other hand, the Council of Europe predictions will not be used, since the predictions formulated by DG.II are more recent and are more homogeneous in terms of the various countries considered.

At this point, it may be more helpful to give a breakdown, based on broad age groups, of both the data for 1965, 1970 and 1975 and the two versions of the predictions for 1985, as well as the predictions for 1995. This information is set out in Tables III.1, III.2 and III.2.a.

Table III.2 shows that the greatest divergences between the two projections are to be found in the 0 - 18 age group. Comparing the Council of Europe predictions to the Commission (DG II) predictions, there appears to be an 11% reduction in France and a 10% and 9% increase in Luxembourg and the Netherlands respectively. Marked divergences are also to be found in the "65 and over" age group: comparing the Council of Europe with the Commission forecasts, the latter is 7% lower in the case of Ireland and 11% and 6% higher in Denmark and Germany respectively.

Another vital factor in the assessments is the working population. Table III.3 shows its distribution according to sex in the same years, 1965, 1970, 1975, 1985 and 1995. Here again, there are two projections

for 1985, with the Commission / predictions generally higher than the Council of Europe estimates, except in the case of Denmark and the Netherlands. The differences are particularly marked in the estimates of the female working population.

One last piece of information which was needed in arriving at evaluations was the number of widows below retirement age. The figures have been taken from census data and from the two projections and have not been included here for the sake of brevity.

A - Council of Europe estimates
B - Commission estimates

POPULATION AS A WHOLE: BREAKDOWN BASED ON SEX AND AGE GROUPS 1965-1970-1975 (in thousands)

TAB. III.1

Country	sex	1965					1970					1975				
		0 - 1[illegible]	19-59	60-64	65&over	Total	0-18	19-59	60-64	65&over	Total	0-18	19-59	60-64	65 & over	Total
BELGIUM	M	-	-	-	-	-	1.459	2.482	249	532	4.72[illegible]	1.433	2.570	234	553	4.790
	W	-	-	-	-	-	1.396	2.482	286	765	4.92[illegible]	1.368	2.549	268	816	5.001
	MW	-	-	-	-	-	2.855	4.964	535	1.297	9.651	2.801	5.119	502	1.369	9.791
DENMARK	M	-	-	-	-	-	-	-	-	-	-	739	1.346	130	289	2.504
	W	-	-	-	-	-	-	-	-	-	-	633	1.374	141	402	2.550
	MW	-	-	-	-	-	-	-	-	-	-	1.372	2.720	271	691	5.054
FRANCE	M	-	-	-	-	-	8.106	12.867	1.219	2.459	24.651	8.133	13.264	1.207	2.704	25.308
	W	-	-	-	-	-	7.800	12.650	1.411	4.010	25.871	7.829	13.058	1.387	4.243	26.517
	MW	-	-	-	-	-	15.906	25.517	2.630	6.469	50.523	15.962	26.322	2.594	6.947	51.825
FED.REP. GERMANY	M	8.342	15.361	1.596	2.733	28.032	8.842	15.375	1.563	3.087	28.867	8.640	15.906	1.440	3.303	29.289
	W	7.912	16.800	1.967	4.300	30.979	8.413	16.344	2.124	4.903	31.784	8.210	16.199	2.098	5.461	31.968
	MW	16.254	32,161	3.563	7.033	59.011	17.255	31.719	3.687	7.990	60.651	16.850	32.105	3.538	8.764	61.257
IRELAND	M	565	672	62	150	1.449	586	690	68	152	1.496	621	730	71	161	1.583
	W	542	658	62	173	1.435	559	678	66	179	1.483	595	716	72	191	1.574
	MW	1.107	1.330	124	323	2.884	1.145	1.368	134	331	2.978	1.216	1.446	143	352	3.157
ITALY	M	7.993	13.627	1.160	2.214	24.994	8.071	14.235	1.363	2.471	26.140	8.572	14.405	1.373	2.789	27.139
	W	7.762	14.511	1.274	2.839	26.386	7.836	14.904	1.447	3.159	27.346	8.162	14.750	1.571	3.839	28.322
	MW	15.755	28.138	2.434	5.053	51.380	15.907	29.139	2.810	5.630	53.486	16.734	29.155	2.944	6.628	55.461
LUXEMBOURG	M	-	-	-	-	-	48	92	9	18	167	47	99	9	19	174
	W	-	-	-	-	-	43	94	11	25	173	30	110	10	28	178
	MW	-	-	-	-	-	91	186	20	43	340	77	209	19	47	352
NETHERLANDS	M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	W	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW	-	-	-	-	-	-	-	-	-	-	4.420	7.097	592	1.490	13.599
UNITED KINGDOM	M	8.236	14.135	1.421	2.508	26.300	8.408	14.212	1.495	2.765	26.880	8.422	14.375	1.488	3.034	27.319
	W	7.826	14.374	1.641	4.077	27.918	8.022	14.372	1.705	4.442	28.541	7.985	14.292	1.690	4.789	28.756
	MW	16.062	28.509	3.062	6.585	54.218	16.430	28.584	3.200	7.207	55.421	16.407	28.667	3.178	7.823	56.075

POPULATION AS A WHOLE - BREAKDOWN BASED ON SEX AND AGE GROUP - 1985 - (in thousands) TAB. III.2

Country	Age / Sex	0 - 18		19 - 59		60 - 64		65 and over		Total	
		A	B	A	B	A	B	A	B	A	B
BELGIUM	M	1.298	1.297	2.761	2.784	265	262	512	499	4.836	4.84
	W	1.237	1.240	2.720	2.734	299	297	779	756	5.035	5.02
	MW	2.535	2.537	5.481	5.518	564	559	1.291	1.255	9.871	9.86
DENMARK	M	702	709	1.415	1.417	129	129	316	316	2.562	2.57
	W	670	677	1.378	1.300	142	142	436	517	2.626	2.63
	MW	1.372	1.386	2.793	2.717	271	271	752	833	5.188	5.20
FRANCE	M	8.766	7.822	14.603	15.141	1.330	1.310	2.496	2.490	27.195	26.76
	W	8.443	7.484	14.370	14.685	1.513	1.534	3.911	4.124	28.237	27.82
	MW	17.209	15.306	28.973	29.826	2.843	2.844	6.407	6.614	55.432	54.59
FED.REP. GERMANY	M	7.023	6.799	17.609	18.002	1.331	1.354	2.830	2.895	28.793	29.05
	W	6.680	6.466	16.917	17.284	2.002	1.971	5.306	5.758	30.905	31.47
	MW	13.703	13.265	34.526	35.286	3.333	3.325	8.136	8.653	59.698	60.52
IRELAND	M	709	681	833	860	67	68	177	161	1.786	1.77
	W	677	652	811	841	72	74	217	204	1.777	1.77
	MW	1.386	1.333	1.644	1.701	139	142	394	365	3.563	3.54
ITALY	M	8.391	8.196	15.257	15.617	1.437	1.358	3.057	2.995	28.142	28.16
	W	8.012	7.800	15.366	15.695	1.684	1.616	4.402	4.316	29.464	29.42
	MW	16.403	15.996	30.623	31.312	3.121	2.974	7.459	7.311	57.606	57.59
LUXEMBOURG	M	39	44	106	107	8	8	18	17	171	17
	W	38	41	100	101	10	10	28	28	176	18
	MW	77	85	206	208	18	18	46	45	347	35
NETHERLANDS	M	-	2.018	-	4.049	-	308	-	679	-	7.05
	W	-	1.930	-	3.902	-	350	-	977	-	7.15
	MW	3.638	3.948	8.037	7.951	674	658	1.667	1.656	14.016	14.21
UNITED KINGDOM	M	7.900	7.617	15.235	15.292	1.491	1.514	3.193	3.162	27.819	27.58
	W	7.483	7.245	14.953	14.939	1.656	1.698	5.019	4.998	29.111	28.88
	MW	15.383	14.862	30.188	30.231	3.147	3.212	8.212	8.160	56.930	56.46

A - Council of Europe forecasts

B - Commission forecasts

TABLE III.2 a

POPULATION AS A WHOLE, WITH BREAKDOWN BASED ON SEX AND AGE GROUP - 1995

		(in thousands)				
		0 - 18	19 - 59	60 - 64	65 and over	Total
BELGIUM	M	1311	2797	246	545	4899
	F	1259	2730	277	800	5066
	MF	2570	5527	523	1345	9965
DENMARK	M	706	1497	114	318	2635
	F	674	1450	124	447	2695
	MF	1380	2947	238	765	5330
FRANCE	M	7737	15798	1328	2885	27748
	F	7410	15357	1488	4603	28858
	MF	15147	31155	2816	7488	56606
GERMANY	M	6537	17429	1685	3165	28816
	F	6264	16855	1718	5750	30587
	MF	12801	34284	3403	8915	59403
IRELAND	M	773	1037	62	154	2026
	F	740	1007	65	220	2032
	MF	1513	2044	127	374	4058
ITALY	M	7770	16336	1494	3389	28989
	F	7448	16167	1691	4937	30243
	MF	15218	32503	3185	8326	59232
LUXEMBOURG	M	41	103	11	19	174
	F	40	97	11	29	177
	MF	81	200	22	48	351
NETHERLANDS	M	1916	4388	326	756	7386
	F	1831	4216	350	1115	7512
	MF	3747	8604	676	1871	14898
UNITED KINGDOM	M	7512	16162	1313	3280	28267
	F	7189	15645	1417	5104	29355
	MF	14701	31807	2730	8384	57622

WORKING POPULATION BY SEX 1965 - 1970 - 1975 - 1985 - 1995 (thousands)

TAB. III.3

Countries	Sex	1965	1970	1975	1985		1995
					A	B	
BELGIUM	M	2,587	2,560	2,569	2,686	2,642	2,679
	W	1,008	1,078	1,167	1,272	1,482	1,718
	MW	3,595	3,638	3,732	3,958	4,124	4,397
DENMARK	M	1,488	1,466	1,463	1,532	1,403	1,438
	W	745	844	1,023	1,070	1,022	1,075
	MW	2,233	2,310	2,486	2,602	2,425	2,513
FRANCE	M	13,557	13,403	13,527	14,188	15,075	15,540
	W	6,974	7,146	7,371	7,979	9,522	10,366
	MW	20,531	20,549	20,898	22,167	24,597	25,906
FED.REP. GERMANY	M	17,190	17,179	16,614	17,566	17,486	17,104
	W	9,844	9,638	9,833	9,568	10,954	11,430
	MW	27,034	26,817	26,447	27,134	28,440	28,534
IRELAND	M	829	834	869	957	912	1,052
	W	288	288	306	324	427	580
	MW	1,117	1,122	1,175	1,281	1,339	1,632
ITALY	M	14,420	14,295	14,032	14,685	14,709	15,303
	W	5,500	5,276	5,162	5,343	6,609	8,370
	MW	19,920	19,571	19,194	20,028	21,318	23,673
LUXEMBOURG	M	-	95	104	108	107	103
	W	-	34	37	38	49	52
	MW	-	129	141	146	156	155
NETHERLANDS	M	3,483	3,559	3,600	-	3,442	3,725
	W	1,055	1,193	1,245	-	1,696	2,319
	MW	4,538	4,752	4,845	5,189	5,138	6,044
UNITED KINGDOM	M	16,875	16,350	16,250	16,775	16,515	16,798
	W	8,775	8,950	9,500	10,600	11,324	12,143
	MW	25,650	25,300	25,750	27,375	27,839	28,941

A - Council of Europe forecasts

B - Commission forecasts

III.2 Frequency coefficients for individual benefits

The information required in constructing the indicators includes not only the structure of the general and working populations of the nine member states but also coefficients representing the frequency of the contingencies / covered by social security and other data as described below.

To determine the first of these coefficients, it was necessary to find the percentage of persons unfit for work by comparison with the working population. The following information was needed:

- average coefficients to be applied to all countries for each of the years, in order to formulate the simple indicators;
- specific coefficients for each country and each year, in order to formulate the qualified indicators.

The first set of coefficients was derived from the data on the Italian situation in 1975, which were processed as appropriate.

The second set of data was supplied by individual countries and processed as appropriate to fill in some of the numerous gaps, to the extent possible. Despite this supplementary information, it proved impossible to make extrapolations for 1985 and 1995, and the coefficients for 1975 were used for this purpose.

It should be pointed out that the coefficients in question were particularly variable when there were variations in age and sex, and that they also varied from one country to another.

The data on those coefficients are set out in schedules 1 and 2 attached.

The second item of information needed in assessments was the percentage of persons unfit for work in the working population who receive disability payments. As in the previous case, the procedure was to take a set of average coefficients for the simple indicators and multiple sets of specific coefficients for the qualified indicators. The first set was obtained by processing some of the morbidity coefficients drawn up by Hiernaux in the light of Belgian findings(7). A point to note with the second set of coefficients is that the values were not so variable as were the coefficients for the persons unfit for work, although there were still marked differences between the coefficients relating to the youngest and the oldest age groups, as well as a degree of divergence between the values for the different countries.

The figures on disability are set out in schedules 3 and 4 attached.

In assessing health care, it was decided to make direct assessments of the average annual costs associated with broad sectors of the population (persons under the retirement age, persons over the retirement age), expressed as a percentage of the gross domestic product per head of population.

In the case of simple indicators, these costs were deducted from the average costs recorded in eight countries (the nine EEC states minus Denmark) by the European Community's Administrative Commission on Social Security for Migrant Workers in 1975. In the case of qualified indicators, these costs as recorded in individual countries were used.

The figures in question are set out in schedule 5 attached.

---

(7) *W. HIERNAUX, Table de morbidité: experience belge 1949-52, in "Notes on the First International Conference of Actuaries and Social Security Statistics", Brussels, 1956.*

With coefficients of this type, it was not possible to use separate data for the years prior to 1975.

It should be added that the following factors were taken into account when constructing the indicators:

- The initial hypothesis was that the retirement age is 65; later, a further hypothesis was taken into account: that retirement age for both men and women is 60.
- The maximum age of eligibility for family allowances was taken as 18 for both sexes.
- Two unemployment rates were taken into consideration: 3% and 6% of the working population.

IV. RESULTS

IV.1 Comparisons concerning population structure

Before considering the findings obtained by constructing the indicators described in Chapter II, it is helpful to set out some of the indices taken from data on the populations of the nine member states and projections of those data to 1985 and 1995, especially for the purpose of comparing the two projections discussed in III.1.

Tables IV.1 and IV.2 provide an outline picture of the composition of the population groups in question. Table IV.1 refers to 1965, 1970 and 1975, while Table IV.2 lists the figures based on the projections taken into account in arriving at a forecast for 1985, i.e. the projections drawn up by the Council of Europe and for the Commission.

Table IV.2.a gives the corresponding data as derived from DG.II's projection for 1995.

It will be noted that the data on the two projections set out in Table IV.2 are fairly divergent in every country except Belgium. Comparing the Council of Europe projections with the Commission projections, the percentage in the 0 - 18 age group is lower in France, Germany, Ireland, Italy and the United Kingdom, while it is higher in Luxembourg and the Netherlands; in age group 19 - 59 it is higher in France, Germany, Ireland, Italy and the United Kingdom and lower in Denmark, Luxembourg and the Netherlands. In the 65 and over age group, it is higher in Denmark, France, Germany and the United Kingdom and lower in Ireland, Italy, Luxembourg and the Netherlands.

A second factor on which assessments are often based in this type of research is specific ratios constructed to compare given sectors of the total population with other sectors or with the working population. With this in mind, the following ratios have been worked out for the years taken into consideration and for the two types of projection:

a) $\frac{\text{65 and over}}{\text{19 - 64}}$

b) $\frac{\text{60 and over}}{\text{19 - 59}}$

c) $\frac{\text{65 and over}}{\text{working population}}$

d) $\frac{\text{65 and over}}{\text{0 - 18}}$

Each of these ratios has a significance of its own. Ratios a) and b) show the burden on those people of working age in supporting the older age groups. Ratio c) provides a comparison of the numbers in the older age group with the working population, the category which pays social security contributions. Ratio d) is one of the possible indicators of whether the population is growing older.

The relevant data are set out in Table IV.3.

The following points are of interest:

- Ratio a) generally ranges from 0.20 to 0.25, the minimum figures occurring in Italy in 1965 and Ireland in 1995 (0.17) and the maximum occurring in Denmark in 1985 (0.28).
- Ratio b) normally varies from 0.30 and 0.35, its minimum and maximum levels occurring in the same instances as in the case of ratio a) (0.25-0.26 and 0.41).
- Ratio c) ranges from 0.23 (Ireland, 1995) to 0.37 (Italy, 1985).
- Radio d) is the most variable, ranging from a minimum of 0.25 (Ireland, 1995) to a maximum of 0.70 (Germany, 1995).

Tab. IV.1

PERCENTAGE COMPOSITION OF TOTAL POPULATION BY SEX AND AGE GROUP

1965 - 1970 - 1975

COUNTRIES	SEX	1965				1970				1975			
		0 - 18	19 - 59	60 - 64	65 & over	0 - 18	19 - 59	60 - 64	65& over	0 - 18	19 - 59	60 - 64	65 & over
BELGIUM	M	-	-	-	-	30,9	52,5	5,3	11,3	29,9	53,7	4,9	11,5
	F	-	-	-	-	28,3	50,4	5,8	15,5	27,3	51,0	5,4	16,3
	MF	-	-	-	-	29,6	51,5	5,5	13,4	28,6	52,3	5,1	14,0
DENMARK	M	-	-	-	-	-	-	-	-	29,5	53,8	5,2	11,5
	F	-	-	-	-	-	-	-	-	24,8	50,9	5,5	18,8
	MF	-	-	-	-	-	-	-	-	27,1	53,8	5,4	13,7
FRANCE	M	-	-	-	-	32,9	52,2	4,9	10,0	32,1	52,4	4,8	10,7
	F	-	-	-	-	30,2	48,9	5,4	15,5	29,5	49,3	5,2	16,0
	MF	-	-	-	-	31,5	50,5	5,2	12,8	30,8	50,8	5,0	13,4
FED.REP. GERMANY	M	29.8	54.8	5,7	9.7	30.6	53,3	5,4	10.7	29.5	54.3	4,9	11,3
	F	25,5	54,2	6.4	13,9	26,3	51,4	6.7	15,4	25,7	50,7	6,5	17,1
	MF	27.5	54,5	6,1	11.9	28,4	52.3	6.1	13.2	27 5	52,4	5,8	14,3
IRELAND	M	39.0	46,4	4,3	10.3	39,2	46,1	4,5	10.2	39,2	46,1	4.5	10.2
	F	37.8	45,8	4.3	12,1	37.7	45,8	4,4	12.1	37 8	45,5	4,6	12,1
	MF	38.4	46,1	4.3	11,2	38,5	45,9	4.5	11,1	38,5	45,8	4,5	11,2
ITALY	M	32.0	54,5	4,6	8.9	30,9	54,5	5.2	9,4	31,6	53,1	5.0	10,3
	F	29.4	55,0	4,8	10.8	28,7	54.5	5,3	11,5	28,8	52,1	5,5	13,6
	MF	30,7	54,8	4,7	9.8	29,7	54,5	5.3	10,5	30.2	52,6	5,3	11,9
LUXEMBOURG	M	-	-	-	-	28.7	55.1	5,4	10,8	27,0	56.9	5,2	10,9
	F	-	-	-	-	24.9	54,3	6,4	14,4	16,9	61,8	5,6	15,7
	MF	-	-	-	-	26,8	54,7	5,9	12,6	21,9	59,4	5,4	13,3
NETHER-LANDS	M	-	-	-	-	-	-	-	-	-	-	-	-
	F	-	-	-	-	-	-	-	-	-	-	-	-
	MF	-	-	-	-	-	-	-	-	32.5	52.2	4.3	11,0
UNITED KINGDOM	M	31.3	53,8	5.4	9.5	31,3	52,9	5.9	10,3	30.9	52.6	5.4	11.1
	F	28.0	51.5	5.9	14.6	28,1	50,4	6,0	15,5	27.8	49,7	5.9	16,6
	MF	29,6	52,6	5,7	12,1	29.6	51,6	5,8	13,0	29.3	51.1	5.7	13.9

PERCENTAGE COMPOSITION OF TOTAL POPULATION BY SEX AND AGE GROUP - 1985

Table IV.2

Table IV.2

COUNTRIES	SEX	0 - 19		19 - 59		60 - 64		65 and over	
		A	B	A	B	A	B	A	B
BELGIUM	M	26.8	26.8	57.1	57,5	5,5	5.4	10.6	10.3
	F	24.6	24,7	54.0	54,4	5.9	5.9	15.5	15,0
	MF	25,7	25.7	55.5	55,9	5,7	5,7	13,1	12.7
DENMARK	M	27.4	27.6	55.2	55,1	5,1	5.0	12.3	12,3
	F	25.5	25.7	52.5	49,3	5.4	5.4	16.6	19,6
	MF	26,5	26.6	53.8	52,2	5.2	5,2	14,5	16,0
FRANCE	M	32,2	29.2	53,7	56.6	4.9	4.9	9.2	9,3
	F	29.9	26.9	50.9	52,8	5,4	5.5	13.8	14,8
	MF	31.0	28.1	52,3	54,6	5,1	5.2	11,6	12,1
FED.REP. GERMANY	M	24,4	23.4	61.2	62,0	4.6	4.6	9.8	10,0
	F	21.6	20.5	54.7	54,9	6.5	6.3	17.2	18,3
	MF	23,0	21.9	57.8	58,3	5,6	5.5	13,6	14,3
IRELAND	M	39,7	38,5	46.6	48,0	3.8	3.8	9,9	9,1
	F	38.1	36,8	45.6	47,5	4.1	4.2	12,2	11,5
	MF	38,9	37.8	46,1	48,1	3,9	4.0	11,1	10,3
ITALY	M	29.8	29,1	54.2	55,5	5,1	4.8	10,9	10,6
	F	27.2	26.5	52.2	53,3	5,7	5,5	14,9	14,7
	MF	28,5	27.8	53.2	54,4	5,4	5.1	12,9	12,7
LUXEMBOURG	M	22,8	25,0	62.0	60,8	4,7	4,5	10,5	9,7
	F	21,6	22.8	56.8	56,1	5.7	5.6	15,9	15,5
	MF	22,2	23.9	59.4	58,4	5,2	5,1	13,2	12,6
NETHERLANDS	M	-	28.6	-	57,4	-	4,4	-	9,6
	F	-	27.0	-	54,5	-	4,9	-	13,6
	MF	26,0	27.8	57.3	55,9	4,8	4.6	11,9	11,7
UNITED KINGDOM	M	28,4	27.6	54.7	55,4	5,4	5,5	11,5	11,5
	F	25,7	25.1	51.4	51,7	5,7	5,9	17,2	17,3
	MF	27.0	26,3	53.1	53,5	5,5	5.7	14,4	14,5

A - Council of Europe forecasts.

B - Commission forecasts

V/48(80)-EN

TABLE IV.2.a

PERCENTAGE COMPOSITION OF GENERAL POPULATION ACCORDING TO SEX AND AGE GROUP - 1955

		0 - 18	19 - 59	60 - 64	65 and over
BELGIUM	M	26.8	57.1	5.0	11.1
	F	24.8	53.9	5.5	15.8
	MF	25.8	55.5	5.2	13.5
DENMARK	M	26.8	56.8	4.3	12.1
	F	25.0	53.8	4.6	16.6
	MF	25.9	55.3	4.5	14.3
FRANCE	M	27.9	56.9	4.8	10.4
	F	25.7	53.2	5.2	15.9
	MF	26.8	55.0	5.0	13.2
FED. REP. OF GERMANY	M	22.7	60.5	5.8	11.0
	F	20.5	55.1	5.6	18.8
	MF	21.6	57.7	5.7	15.0
IRELAND	M	38.1	51.2	3.1	7.6
	F	36.4	49.6	3.2	10.8
	MF	37.3	50.4	3.1	9.2
ITALY	M	26.8	56.3	5.2	11.7
	F	24.6	53.5	5.6	16.3
	MF	25.7	54.9	5.4	14.0
LUXEMBOURG	M	23.8	59.2	6.2	10.8
	F	22.4	55.0	6.2	16.4
	MF	23.1	57.1	6.2	13.6
NETHERLANDS	M	25.9	59.4	4.4	10.3
	F	24.4	56.1	4.7	14.8
	MF	25.1	57.8	4.5	12.6
UNITED KINGDOM	M	26.6	57.2	4.6	11.6
	F	24.5	53.3	4.8	17.4
	MF	25.5	55.2	4.7	14.6

RATIOS BETWEEN SPECIFIC GROUPS OF THE TOTAL POPULATION AND THE WORKING POPULATION - MALE AND FEMALE

TABLE IV.3

COUNTRY	TYPE OF RATIO	YEARS					
		1965	1970	1975	1985 A	1985 B	1995
BELGIUM	a	-	0.236	0.244	0.214	0.207	0.222
	b	-	0.369	0.366	0.338	0.329	0.338
	c	-	0.357	0.364	0.326	0.304	0.306
	d	-	0.454	0.489	0.509	0.495	0.523
DENMARK	a	-	-	0.231	0.245	0.279	0.240
	b	-	-	0.354	0.366	0.406	0.341
	c	-	-	0.278	0.289	0.344	0.305
	d	-	-	0 504	0.548	0.601	0.554
FRANCE	a	-	0.230	0.240	0.201	0.202	0.220
	b	-	0.357	0.362	0.319	0.317	0.331
	c	-	0.315	0.332	0.289	0.269	0.289
	d	-	0.407	0.435	0.372	0.432	0.494
FEDERAL REPUBLIC OF GERMANY	a	0.197	0.225	0.246	0.215	0.224	0.237
	b	0.329	0.368	0.383	0.332	0.339	0.359
	c	0.260	0.298	0.331	0.300	0.304	0.312
	d	0.433	0.463	0.520	0.594	0.652	0.696
IRELAND	a	0.222	0.220	0.222	0.221	0.198	0.173
	b	0.336	0.340	0.342	0.324	0.298	0.245
	c	0.289	0.295	0.300	0.308	0.273	0.230
	d	0.292	0.289	0.289	0.284	0.274	0.248
ITALY	a	0.165	0.176	0.206	0.221	0.213	0.233
	b	0.266	0.290	0.328	0.345	0.328	0.354
	c	0.254	0.288	0.345	0.372	0.343	0.352
	d	0.321	0.354	0.396	0.455	0.457	0.547
LUXEMBOURG	a	-	0.209	0.206	0.205	0.199	0.215
	b	-	0.339	0.316	0.311	0.303	0.347
	c	-	0.333	0.333	0.315	0.288	0.308
	d	-	0.473	0.610	0.597	0.529	0.590
NETHERLANDS	a	-	-	0.194	0.191	0.192	0.202
	b	-	-	0.293	0.291	0.291	0.296
	c	-	-	0.308	0.321	0.322	0.310
	d	-	-	0.337	0.458	0.419	0.499
UNITED KINGDOM	a	0.209	0.227	0.246	0.246	0.244	0.243
	b	0.338	0.364	0.384	0.376	0.376	0.349
	c	0.257	0.285	0.304	0.300	0.293	0.290
	d	0.410	0.439	0.477	0.534	0.549	0.570

A – Council of Europe forecast.
B – Commission forecast.

a) $\frac{\text{65 and over}}{19 - 64}$; $\frac{\text{60 \& over}}{19 - 59}$; c) $\frac{\text{65 \& over}}{\text{working population}}$; d) $\frac{\text{65 \& over}}{0 - 18}$

IV.2 Simple indicators

Let us now turn to the main findings at which we have arrived by constructing simple and qualified indicators. Starting with the simple indicators, Tables IV.4 to IV.10 set out the indicators that have been formulated for individual branches of social security.

Table IV.9 in particular refers to unemployment on the assumption that the unemployment rate is 3% of the working population. As is obvious, if the rate is 6%, the indices contained in the table will be double.

Tables IV.11 and IV.12 show the simple overall indicators for all branches of social security: IV.11 is based on the assumption that the unemployment rate is 3%, IV.12 on a 6% unemployment rate.

This first set of data reveals that:

- there is a reasonable degree of uniformity between the countries, especially in the overall indices;
- the differences between the two projections for 1985 are slight, except in France and Germany, showing that (with some exceptions) the qualitative findings have not been greatly influenced by the differing criteria used when making those projections;
- some of the most marked differences are to be found in the tables covering old age and survivors' pensions.

To make the data for the various countries as set out in these tables more comparable, it may be found helpful to take the overall indicator (based on the assumption of a 3% unemployment rate) and to show the variations in that indicator from year to year, based on a value of 100 in 1975. This has been done in Table IV.13.

One comment that could be made on the predictions for 1985 is that the member states fall into two groups: countries whose index falls below 100 (Belgium, France, Germany - in the case of the Council of Europe projection - and Ireland), and the remaining five countries, whose index is higher than 100. The maximum increase in the latter group is for Italy, with 3.5%. These indices also show that the two projections lead to the same type of findings in almost every country.

With regard to the 1995 projections for all countries, except in the case of Ireland the index is greater than 100, Italy showing the maximum increase, 109.8.

Lastly, it should be pointed out that if the employment rates and the ensuing structure of the working population are not considered to be demographic factors in the strict sense of the term, and if the same employment rate is assumed for all countries, differing values would be obtained for the simple indicators for the invalidity, temporary disability and unemployment branches of social security. This would then attenuate the differences between the countries highlighted by Tables IV.6, IV.8 and IV.9.

TABLE IV.4

Simple indicator - Old age - Retirement age: 65

(expressed as a percentage of the GDP)

COUNTRIES	YEARS					
	1965	1970	1975	1985(a)	1985(b)	1995(b)
BELGIUM	5.72	6.05	6.29	5.88	5.72	6.07
DENMARK	5.10	5.48	5.97	6.52	6.50	6.46
FRANCE	5.40	5.78	6.03	5.20	5.45	5.95
FED.REP.GERMANY	5.36	5.93	6.44	6.13	6.64	6.75
IRELAND	5.04	5.00	5.02	4.98	4.64	4.15
ITALY	4.43	5.13	5.38	5.81	5.71	6.33
LUXEMBOURG	(c)	5.67	6.00	5.92	5.79	6.13
NETHERLANDS	4.33	4.60	4.93	5.36	5.24	5.65
UNITED KINGDOM	5.47	5.85	6.28	6.49	6.50	6.55

(a) Using the demographic forecasts drawn up by the Council of Europe.

(b) Using the forecasts drawn up for the Commission.

(c) No data available.

TABLE IV.5

Simple indicator - Survivors - Retirement age: 65

(expressed as a percentage of the GDP)

COUNTRIES	YEARS					
	1965	1970	1975	1985(a)	1985(b)	1995(f)
BELGIUM	0.75(c)	0.75(c)	0.75	0.83	0.83	0.83
DENMARK	0.63(c)	0.63(c)	0.63	0.61	0.61	0.61
FRANCE	0.74	0.74	0.74	0.79	0.74	0.74
FED.REP.GERMANY(d)	0.84	0.80	0.80	0.84	0.81	0.81
IRELAND	0.67(c)	0.67(c)	0.67	0.58	0.58	0.58
ITALY	0.90(c)	0.89	0.90	0.90	0.90	0.90
LUXEMBOURG	(e)	0.97(c)	0.96	1.05	1.05	1.05
NETHERLANDS	0.50	0.52	0.54	0.54	0.54	0.54
UNITED KINGDOM	0.68(c)	0.68	0.68	0.63	0.63	0.63

(a) Using the demographic forecasts of the Council of Europe.

(b) Using the forecasts drawn up for the Commission. The number of widows aged under 65 was obtained on the basis of the proportion of widows amongst women aged under 65 registered for 1985 in the study referred to in the memorandum (5).

(c) The number of widows aged under 65 was obtained on the basis of the proportion of widows amongst women aged under 65 registered for 1975.

(d) The number of widows was calculated on the basis of the proportion of widows amongst women aged under 65 registered for the years taken into account in the other countries.

(e) No data available.

(f) The figures have been assumed to be the same as in 1985 (DG.II forecast), due to the lack of data for 1995.

TABLE IV.6

Simple indicator - Invalidity - Retirement age: 65

(expressed as a percentage of the GDP)

COUNTRIES	YEARS					
	1965	1970	1975	1985(a)	1985(b)	1995(b)
BELGIUM	1.53	1.44	1.40	1.46	1.57	1.80
DENMARK	2.11(c)	2.11(c)	2.20	2.14	2.07	2.18
FRANCE	1.71	1.60	1.57	1.66	1.88	1.92
FED.REP.GERMANY	2.04	1.90	1.86(c)	1.93(c)	2.00	2.34
IRELAND	1.43(c)	1.47	1.38	1.19	1.25	1.36
ITALY	1.49	1.40	1.28	1.35	1.43	1.61
LUXEMBOURG	(d)	1.38	1.35	1.57	1.59	1.72
NETHERLANDS	1.04(c)	1.02(c)	1.01(c)	1.05(c)	1.02	1.37
UNITED KINGDOM	2.19(c)	2.11	2.17	2.19	2.31	2.22

(a) Using the demographic forecasts drawn up by the Council of Europe.

(b) Using the forecasts drawn up for the Commission.

(c) The distribution by age of the working population was estimated on the basis of data available for the nearest year.

(d) No figures are available for the working population.

TABLE IV.7

Simple indicator - Family benefits - Retirement age: 65

(expressed as a percentage of the GDP)

COUNTRIES	YEARS					
	1965	1970	1975	1985 (a)	1985 (b)	1995 (b)
BELGIUM	1.20	1.18	1,14	1,03	1.03	1.03
DENMARK	1.14	1.14	1.14	1.06	1.06	1.04
FRANCE	1.26	1.26	1.23	1,24	1,12	1.07
FED.REP.GERMANY	1.10	1.14	1.10	0,92	0.88	0.86
IRELAND	1.54	1.54	1,54	1,56	1.51	1.49
ITALY	1,23	1.44	1.21	1,16	1,11	1.03
LUXEMBOURG	(c)	1.12	1.04	0,89	0.95	0.92
NETHERLANDS	1.30	1.30	1.30	1.04	1.11	1.01
UNITED KINGDOM	1.18	1.19	1,17	1.08	1.05	1.02

(a) Using the demographic forecasts drawn up by the Council of Europe.

(b) Using the forecasts drawn up for the Commission.

(c) No figures are available on the working population.

TABLE IV.8

Simple indicator - Temporary disability - Retirement age: 65

(expressed as a percentage of the GDP)

COUNTRIES	YEARS					
	1965	1970	1975	1985 (a)	1985 (b)	1995 (b)
BELGIUM	0.62	0.63	0.64	0,69	0.74	0.80
DENMARK	0.85 (c)	0.85 (c)	0.89	0.90	0.86	0.88
FRANCE	0.72	0.68	0.69	0,70	0,81	0.83
FED.REP.GERMANY	0.78	0,75	0.73 (c)	0,81 (c)	0,84	0.89
IRELAND	0,53 (c)	0,56	0,55	0.54	0,61	0.68
ITALY	0,62	0.59	0.56	0.56	0.63	0.71
LUXEMBOURG	(d)	0.60	0.62	0.66	0.73	0.76
NETHERLANDS	0.62 (c)	0,61 (c)	0.60 (c)	0,63 (c)	0.61	0.73
UNITED KINGDOM	0.79 (c)	0.77	0,78	0,83	0.89	0.93

(a) Using the demographic forecasts drawn up by the Council of Europe.

(b) Using the forecasts drawn up for the Commission.

(c) The distribution by age of the working population was estimated on the basis of figures available for the nearest year.

(d) No figures are available on the working population.

TABLE IV.9

Simple indicator - Unemployment(a) - Retirement age: 65

(expressed as a percentage of the GDP)

Unemployment rate: 3% (of working population)

COUNTRIES	YEARS					
	1965	1970	1975	1985(a)	1985(b)	1995(b)
BELGIUM	0,56	0,56	0,57	0.60	0.62	0.65
DENMARK	0,71	0,71	0,71	0,73	0,68	0.68
FRANCE	0,62	0,58	0,59	0.60	0.67	0.67
FED.REP.GERMANY	0.66	0,64	0,65	0.68	0.70	0.70
IRELAND	0,53	0,52	0.52	0.51	0.55	0.59
ITALY	0,57	0.54	0.51	0.51	0.55	0.58
LUXEMBOURG	(d)	0,56	0.59	0,62	0.64	0.64
NETHERLANDS	0,55	0.54	0,53	0,56	0.54	0.59
UNITED KINGDOM	0,71	0.65	0.67	0,70	0,72	0.72

(a) Using the demographic forecasts drawn up by the Council of Europe.

(b) Using the demographic forecasts drawn up for the Commission.

(c) No figures are available on the working population.

TABLE IV.10

Simple indicator – Health care – Retirement age: 65

(expressed as a percentage of the GDP)

COUNTRIES	YEARS					
	1965	1970	1975	1985 (a)	1985 (b)	1995 (b)
BELGIUM	4,64	4.67	4.69	4.66	4.64	4.67
DENMARK	4,58	4.62	4.66	4.72	4,71	4.71
FRANCE	4.61	4.65	4.67	4.59	4,61	4.66
FED.REP.GERMANY	4.61	4.66	4.71	4.68	4.73	4.74
IRELAND	4.58	4.57	4.57	4.57	4,54	4.49
ITALY	4.52	4.55	4,61	4.67	4,64	4.70
LUXEMBOURG	(c)	4.63	4,67	4.66	4,65	4.68
NETHERLANDS	4.51	4.53	4.56	4.61	4.60	4.63
UNITED KINGDOM	4.62	4.65	4.69	4,71	4.71	4.72

(a) Using the demographic forecasts drawn up by the Council of Europe.

(b) Using the forecasts drawn up for the Commission.

(c) No figures available.

TABLE IV.11

Simple indicator - All benefits (a) - Retirement age: 65

(expressed as a percentage of the GDP)

Unemployment rate: 3% (of working population)

COUNTRIES	YEARS					
	1965	1970	1975	1985 (a)	1985 (b)	1995 (b)
BELGIUM	15.02	15.28	15.48	15.15	15.15	15.85
DENMARK	15.12	15.54	16.20	16.68	16.49	16.56
FRANCE	15.06	15.29	15.52	14.78	15.28	15.84
FED.REP.GERMANY	15.39	15.82	16.29	15.99	16.60	17.09
IRELAND	14.32	14.33	14.25	13.93	13.68	13.34
ITALY	13.76	14.54	14.45	14.96	14.97	15.86
LUXEMBOURG	(c)	14.93	15.23	15.37	15.40	15.90
NETHERLANDS	12.84	13.12	13.47	13.79	13.66	14.52
UNITED KINGDOM	15.64	15.91	16.44	16.63	16.81	16.79

(a) Using the demographic forecasts drawn up by the Council of Europe.

(b) Using the demographic forecasts drawn up for the Commission.

(c) No figures available.

TABLE IV.12

Simple indicator - All benefits (a) - Retirement age: 65

Unemployment rate: 6% (of working population)

COUNTRIES	YEARS					
	1965	1970	1975	1985 (a)	1985 (b)	1995 (b)
BELGIUM	15.58	15.84	16.05	15.75	15.77	16.49
DENMARK	15.83	16.25	16.91	17.41	17.17	17.25
FRANCE	15.68	15.87	16.11	15.38	15.95	16.50
FED.REP.GERMANY	16.05	16.46	16.94	16.67	17.30	17.79
IRELAND	14.85	14.85	14.77	14.44	14.23	13.92
ITALY	14.33	15.08	14.96	15.47	15.52	16.45
LUXEMBOURG	(d)	15.49	15.82	15.99	16.04	16.54
NETHERLANDS	13.39	13.66	14.00	14.35	14.20	15.12
UNITED KINGDOM	16.35	16.57	17.11	17.33	17.53	17.52

(a) Using the demographic forecasts drawn up by the Council of Europe.

(b) Using the demographic forecasts drawn up for the Commission.

(c) No figures available.

TABLE IV.13

Variation in the simple index for the various years. All benefits (a)

(1975 = 100)

COUNTRIES	YEARS					
	1965	1970	1975	1985 (b)	1985 (c)	1995 (c)
BELGIUM	97.0	98.7	100.0	97.9	97.9	102.4
DENMARK	93.3	95.9	100.0	103.0	101.8	102.2
FRANCE	97.0	98.5	100.0	95.2	98.5	102.1
FED.REP.GERMANY	94.5	97.1	100.0	98.2	101.9	104.9
IRELAND	00.5	100.6	100.0	97.8	96.0	93.6
ITALY	95.2	100.6	100.0	103.5	103.6	109.8
LUXEMBOURG	(d)	98.0	100.0	100.9	101.1	104.4
NETHERLANDS	95.3	97.4	100.0	102.4	101.4	107.8
UNITED KINGDOM	95.1	96.8	100.0	101.2	102.3	102.1

(a) Unemployment rate: 3%. Retirement age: 65.

(b) Using the demographic forecasts drawn up by the Council of Europe.

(c) Using the demographic forecasts drawn up for the Commission.

(d) No figures available.

IV.3 Qualified indicators

As stated in II.2, qualified indicators differ from simple indicators as follows. In the case of simple indicators, given coefficients (those indicated in III.2) covering all the countries are used for invalidity, temporary disability and medical care. In the case of qualified indicators, on the other hand, specific coefficients for each country are used for these three factors in the individual years 1965, 1970 and 1975; because of the difficulties in making any sort of extrapolation, the coefficients for 1975 are also used for 1985 and 1995, again separately for each country.

Tables IV.14, IV.15 and IV.16 set out the qualified indicators for invalidity, temporary disability and medical care respectively. As is obvious, the qualified indicators for other branches of social security are the same as the simple indicators listed in the tables in section IV.2.

Tables IV.17 and IV.18 give the overall qualified indicators for the two unemployment rate hypotheses, i.e. 3% and 6% of the working population.

Finally, Table IV.19 (which refers solely to the 3% unemployment rate assumption) sets out the variations in the overall qualified indicators by comparison with the value of those indicators in each country in 1975, conventionally taken as 100.

On examining the figures in these tables, the comment could be made that there are marked differences in the indices for individual social security branches, obviously originating from the different coefficients which may be allocated to individual phenomena in each country. This is obviously reflected in the overall indicators, so that the differences in every country, except Germany, are particularly marked.

The qualified indices confirm that the differences between the two projections are slight.

Of special interest is Table IV.19, which shows that the 1985 values for Italy, Luxembourg, the Netherlands and the United Kingdom are higher than 100, as in the case of the simple indicators. The table also confirms the negative trend in the case of Belgium and Ireland. The conclusions that may be drawn from the figures for Germany are somewhat different.

The 1995 figures for two countries, Ireland and the United Kingdom, are below 100, while Belgium returns to about the same level as in 1975.

TABLE IV.14

Qualified indicator - Invalidity - Retirement age: 65

(expressed as a percentage of the GDP)

COUNTRIES	YEARS					
	1965	1970	1975	1985 (a)	1985 (b)	1995 (b)
BELGIUM	0.60	0.72	0.88	0.93	0.96	1.00
DENMARK	(c)	(c)	1,01	1,00	0,95	0.98
FRANCE	(c)	(c)	(c)	(c)	(c)	(c)
FED.REP.GERMANY	1.37	1.33	1.47	1.55	1.58	1.62
IRELAND	(c)	0.31	0.22	0.22	0.18	0.24
ITALY	0.98	1.07	1.28	1.35	1.43	1.61
LUXEMBOURG	(d)	1.08	1.02	1.20	1.21	1.30
NETHERLANDS	(c)	1.77	1.74	1.80	1.75	2.16
UNITED KINGDOM	(c)	0.58	0.93	0.95	1.04	0.66

(a) Using the demographic forecasts drawn up by the Council of Europe.

(b) Using the demographic forecasts drawn up for the Commission.

(c) There are no frequencies of specific types of invalidity.

(d) No figures available on the working population.

TABLE IV.15

Qualified indicator - Temporary disability - Retirement age: 65

(expressed as a percentage of the GDP)

COUNTRIES	YEARS					
	1965	1970	1975 (a)	1985 (b)	1985	1995 (b)
BELGIUM	0.67	0.71	0.75	0.81	0.86	0.93
DENMARK	(c)	(c)	(c)	(c)	(c)	(c)
FRANCE	1.17	0.90	0.95	0.96	1.08	1.10
FED.REP.GERMANY	1.28	1.32	1.00 (d)	1.06	1.09	1.16
IRELAND	0.54	0.78	0.38	0.37	0.40	0.44
ITALY	0.64	0.63	0.91	0.92	0.99	1.07
LUXEMBOURG	(e)	0.61	0.94	1.03	1.05	1.07
NETHERLANDS	0.98	1.24	1.49	1.55	1.51	1.68
UNITED KINGDOM	(e)	1.17	1.68	1.74	1.87	1.17

(a) Using the demographic forecasts drawn up by the Council of Europe.

(b) Using the demographic forecasts drawn up for the Commission.

(c) There are no frequencies concerning specific disabilities.

(d) The distribution by age of the working population has been estimated on the basis of data for the nearest year available.

(e) No figures available on the working population.

TABLE IV.16

Qualified indicator - Health care (a)

(expressed as a percentage of the GDP)

COUNTRIES	YEARS					
	1965	1970	1975	1985(b)	1985(c)	1995(c)
BELGIUM	3.66	3.70	3.73	3.68	3.66	3.70
DENMARK	(d)	(d)	(d)	(d)	(d)	(d)
FRANCE	4.67	4.70	4.72	4.65	4,67	4.72
FED.REP.GERMANY	4.77	4.82	4.87	4.84	4.89	4.90
IRELAND	5.81	5.81	5.81	5.80	5.76	5.69
ITALY	5.42	5.45	5.50	5.56	5.53	5.58
LUXEMBOURG	(e)	3.37	3.26	3.39	3.38	3.41
NETHERLANDS	6.29	6.32	6.36	6.41	6.40	6.44
UNITED KINGDOM	3.19	3.22	3.27	3.29	3.29	3.29

(a) The average specific cost for 1975 for the various countries has been used for all years.

(b) Using the demographic forecasts drawn up by the Council of Europe.

(c) Using the demographic forecasts drawn up for the Commission.

(d) There is no average specific cost.

(e) No figures are available on the working population.

TABLE IV.17

Qualified indicator - All benefits (a) - Retirement age: 65

Unemployment rate: 3% (of working population)

(expressed as a percentage of the GDP)

COUNTRIES	YEARS					
	1965	1970	1975	1985 (a)	1985 (b)	1995 (b)
BELGIUM	13.16	13.67	14.11	13.76	13.68	14.21
DENMARK	-	-	-	-	-	-
FRANCE	-	-	-	-	-	-
FED.REP.GERMANY	15.38	15.98	16.33	16.02	16.59	16.80
IRELAND	-	14.63	14.16	14.02	13.62	13.18
ITALY	14.17	15.15	15.69	16.21	16.22	17.10
LUXEMBOURG	-	13.38	13.81	14.10	14.07	14.52
NETHERLANDS	-	16.29	16.89	17.26	17.09	18.07
UNITED KINGDOM	-	13.35	14.68	14.88	15.10	14.04

(a) Using the demographic forecasts drawn up by the Council of Europe.

(b) Using the demographic forecasts drawn up for the Commission.

Note: No overall qualified indicators have been shown for those countries and those years for which it has been impossible to determine qualified indicators for the individual benefits.

TABLE IV.18

Qualified indicator - All benefits (a) - Retirement age: 65

Unemployment rate: 6% (of working population)

(expressed as a percentage of the GDP)

COUNTRIES	YEARS					
	1965	1970	1975	1985[a]	1985[b]	1995[b]
BELGIUM	13.72	14.23	14.68	14.36	14.30	14.85
DENMARK	-	-	-	-	-	-
FRANCE	-	-	-	-	-	-
FED.REP.GERMANY	16.04	16.62	16.98	16.70	17.29	17.50
IRELAND	-	15.15	14.68	14.53	14.17	13.76
ITALY	14.74	15.69	16.20	16.72	16.77	17.69
LUXEMBOURG	-	13.94	14.40	14.72	14.71	15.16
NETHERLANDS	-	16.83	17.42	17.82	17.63	18.67
UNITED KINGDOM	-	14.01	15.35	15.58	15.82	14.77

(a) Using the demographic forecasts drawn up by the Council of Europe.

(b) Using the demographic forecasts drawn up for the Commission.

Note: No overall qualified indicators have been shown for those countries and those years for which it has been impossible to determine qualified indicators for the individual benefits.

TABLE IV.19

Variation in the qualified indicator for the various countries -

All benefits (a)

(1975 = 100)

COUNTRIES	YEARS					
	1965	1970	1975	1985 (b)	1985 (c)	1995 (c)
BELGIUM	93.3	96.9	100.0	97.5	97.0	100.7
DENMARK	-	-	-	-	-	-
FRANCE	-	-	-	-	-	-
FED.REP.GERMANY	94.2	97.9	100.0	98.1	101.6	102.9
IRELAND	-	103.3	100.0	99.0	96.2	93.1
ITALY	90.3	96.6	100.0	103.3	103.4	109.0
LUXEMBOURG	-	96.9	100.0	102.1	101.9	105.1
NETHERLANDS	-	96.4	100.0	102.2	101.2	107.0
UNITED KINGDOM	-	90.9	100.0	101.4	102.3	95.6

(a) Unemployment rate: 3%. Reitrement age: 65.

(b) Using the demographic forecasts drawn up by the Council of Europe.

(c) Using the demographic forecasts drawn up for the Commission.

IV.4 An alternative retirement age hypothesis

As specified in III.2, one of the conventions adopted in constructing the simple and qualified indicators was a standard pensionable retirement age. All the data in the tables under section IV.2 are based on the hypothesis that the retirement age for pension purposes is 65. It is well known that this is not the true position in some of the EEC member states. Thought should be given to the effects of a different retirement age, one of the aims being to furnish factors on which assessments may be based in the countries where the retirement age is currently 65 and over lower that age. The decision has been taken to work out the figures for both the simple and the qualified indicators on the assumption that the retirement age for both men and women is 60.

Table IV.20 gives simple indicators (and also the qualified indicators, since there are no divergences in this case) for the old age branch of social security.

Table IV.21 shows the overall simple indicators, which take the change in retirement age into account for both old age and the other branches of social security.

Table IV.22 sets out the overall qualified indicators, also taking the change in the retirement age into account.

Both the simple and the qualified indicators refer to the assumption that the unemployment rate is 3% of the working population.

Comparing the figures in Table IV.20 with those in Table IV.4, the average increase in the simple indicator for old age is about 35% to 40%,both in 1985 and in 1995. The increases in the previous years are even higher. It is obvious that the variations in question, together with the minor variations occurring in the other branches, are reflected in the simple and qualified overall indicators, although the percentage effects are less marked.

If the changes in retirement age were no more than one or two years, the corresponding indicator values could be accurately gauged by linear interpolation.

TABLE IV.20

Simple indicator - Old age - Retirement age: 60

(expressed as a percentage of the GDP)

COUNTRIES	YEARS					
	1965	1970	1975	1985 (a)	1985 (b)	1995 (c)
BELGIUM	8.32	8.55	8.60	8.46	8.28	8.44
DENMARK	7.38	7.88	8.39	8.87	8.84	8.47
FRANCE	7.82	8.12	8.28	7.51	7.80	8.19
FED.REP.GERMANY	8.07	8.66	9.04	8.65	8.91	9.33
IRELAND	6.97	7.03	7.06	6.73	6.44	5.56
ITALY	6.56	7.10	7.77	8.27	8.04	8.74
LUXEMBOURG	(c)	8.33	8.42	8.29	8.05	8.91
NETHERLANDS	6.27	6.55	7.16	7.52	7.33	7.69
UNITED KINGDOM	8.01	8.45	8.83	8.98	9.06	8.68

(a) Using the demographic forecasts drawn up by the Council of Europe.

(b) Using the demographic forecasts drawn up for the Commission.

(c) No figures available.

TABLE IV.21

Simple indicator - All benefits (a) - Retirement age: 60

(expressed as a percentage of the GDP)
Unemployment rate: 3% (of working population)

COUNTRIES	YEARS					
	1965	1970	1975	1985 (a)	1985 (b)	1995 (b)
BELGIUM	17,42	17,62	17.70	17,61	17.71	17.65
DENMARK	17,25	17.79	18.38	18.79	18.71	17.97
FRANCE	17.32	17.45	17.61	16.93	17.61	17.51
FED.REP.GERMANY	18.08	18.55	18.99	18.88	19,20	19.02
IRELAND	16.03	16.05	15.99	15.47	15.43	14.29
ITALY	15.74	16.38	16.70	17.29	17.26	17.71
LUXEMBOURG	(c)	17.44	17.53	17.63	17.62	17.96
NETHERLANDS	15.12	15.41	16.03	16.28	16.04	16.15
UNITED KINGDOM	17,97	18.18	18,65	18.84	19,11	18.20

(a) Using the demographic forecasts drawn up by the Council of Europe.

(b) Using the demographic forecasts drawn up for the Commission.

(c) No figures available.

TABLE IV.22

Qualified indicator - All benefits - Retirement age: 60

(expressed as a percentage of the GDP)

Unemployment rate: 3% (of working population)

COUNTRIES	YEARS					
	1965	1970	1975	(a) 1985	(b) 1985	(b) 1995
BELGIUM	15.86	16.26	16.54	16.44	16.42	16.19
DENMARK	-	-	-	-	-	-
FRANCE	-	-	-	-	-	-
FED.REP.GERMANY	18.49	19.11	19.79	19.13	19,37	18.93
IRELAND	-	16.77	16.33	15.94	15.67	14.33
ITALY	16,21	17.01	17.94	18.53	18,50	18.95
LUXEMBOURG	-	15.84	15.98	16,25	16.53	16.46
NETHERLANDS	-	18.79	19,66	19.97	19,42	19.65
UNITED KINGDOM	-	15.86	17.14	17,35	17,55	15.63

(a) Using the demographic forecasts drawn up by the Council of Europe.

(b) Using the demographic forecasts drawn up for the Commission.

Note: Where it has been impossible to determine the qualified indicators for individual benefits, no overall qualified indicators have been shown for the corresponding countries and years.

IV.5 A comparison with the data in the Social Accounts

It may be of interest to compare the overall simple or qualified indicators with the corresponding indicators as calculated for the Social Accounts of the Communities.

The Social Accounts show the ratios between each country's effective costs and its gross domestic product. The ratios are worked out on the basis of the direct costs of benefits and also on the basis of overall costs, i.e. inclusive of administrative expenditure and other minor items.

As is obvious, our figures have been compared only with the indicators based on direct costs of benefits, and we have also restricted ourselves to 1970 and 1975. It was impossible to make comparisons for 1965 as the Social Accounts for that year did not cover the three countries which later joined the Community. No comparisons were possible for 1985 or 1995, since the predictions made by the European Social Budget stop at 1980.

The data in question are set out in Table IV.23. The simple and qualified indicators used are those referring to a retirement age of 65 and the assumption of a 3% unemployment rate.

The ratios in Table IV.23 give some indication of the greater level of social security cover achieved in every member state by comparison with the various conventions that have been taken into account when constructing the indicators. Since these conventions have for the most part been taken from the Council of Europe Protocol, to an extent they constitute a minimum level.

An interesting point is that only one country, Ireland, had values of less than 100. A comparison between simple and qualified indicators shows that marked differences exist, especially in Italy, the Netherlands and the United Kingdom.

Referring to the qualified indicators where the comparison is more specifically significant, the highest indicator in 1975 is to be found in Germany, followed by Luxembourg, the Netherlands and Belgium, the countries where the level of social security cover exceeds the level specified by the Council of Europe Protocol by 50%. Ireland, the United Kingdom and Italy are in a less favourable position, with about 40% increases in the level of social security cover.

TABLE IV.23

Ratio between expenditure[a] on benefits as shown by Social Accounts and the simple and qualified indicators (multiplied by 100)[b]

COUNTRIES	SIMPLE INDICATORS		QUALIFIED INDICATORS	
	1970	1975	1970	1975
BELGIUM	111,3	142.1	124.4	155.9
DENMARK	124.2	166.7	-	-
FRANCE	117.1	139.2	-	-
FED.REP.GERMANY	134.0	172.5	132.7	172.1
IRELAND	88.6	138.2	86.8	139.1
ITALY	117.6	150.2	112.9	138.3
LUXEMBOURG	107.2	151.0	119.6	166.5
NETHERLANDS	153.2	200.4	123.4	159.9
UNITED KINGDOM	111.9	124.1	133.3	139.0

(a) as a percentage of the gross domestic product.

(b) Indicators pertaining to retirement age of 65 and unemployment rate of 3% of working population.

V. CONCLUSIONS

V.1 Comments on the method employed

Before setting out the conclusions that may be drawn from the findings given in chapter IV, a few comments are called for on the method employed, returning to some of the points discussed in chapter II.

As already explained at length, the general criterion used to highlight a given factor is that the other factors contributing towards a given result are maintained constant over a specified period of time and in a specified area.

In this specific case of the costs incurred for social security systems, for the purpose of comparison it was essential to assume that the following factors are constant: the legislative measures governing the allocation of benefits and the rates of benefit, and individual and general increases in earnings (increases in real terms and those due to monetary devaluation).

The first idea that comes to mind is to take the legislation in each country at the time of calculation, and the level of earnings reached at that same time. In so doing, however, the comparisons between the countries would be less significant since the non-demographic factors for each country would be established at "different" levels, even though it would always be possible to assess the influence of demographic factors in relative terms - as has in fact been the case with the survey on pensions conducted under the auspices of the Council of Europe. If, however, the comparison is to be made more significant and the calculation procedure simplified, it is preferable to use a system of standard legislation applicable to all countries and to state the rate of benefits as a percentage of the gross domestic product per head of population, as has been done in our case.

When choosing the system of standard benefits, reference to the "minimum standards" laid down at international level, such as those contained in the Council of Europe Protocol, has the undoubted advantage that the findings can be used to ascertain the extent to which the legislation of each country exceeds or falls short of the "minimum standards" of social security cover.

The results obtained obviously depend on the system of benefits chosen and, in the case of future years, the type of hypothesis selected for demographic predictions. When setting out the findings, however, it was found that the differences are slight - at least as far as the second factor is concerned - and do not modify the essential conclusions at which we have arrived using the method in question.

The final point we should like to make is that the value of the research is immediately apparent when one compares the data for a year in which the population structure is known. Taking 1975 as an example, when the findings for each branch of social security and each country are set out in a single table, Table V.1, the figures clearly show that, the benefits being equal, there are substantial differences between individual countries due solely to demographic factors.

Of all these differences, the following are of special interest:

- in the "old age" branch, there are divergences of over 1.5% (Netherlands 4.93 - Germany 6.44);
- in the "survivors" branch, the differences are relatively more marked, the indicators ranging from 0.54 in the Netherlands to 0.96 in Luxembourg;
- the divergences in respect of "invalidity" are equally great: 1.01 in the Netherlands and 2.20 in Denmark;
- finally, the differences in the "total" indicators are as high as 3% of the gross domestic product per head of population: 13.47 in the Netherlands and 16.44 in the United Kingdom.

These findings make it obvious that it would be impossible to standardize benefits in all EEC countries at the same cost in each, if only due to the effect of the demographic factors. This in itself an important preliminary finding from the research that has been done.

TABLE V.1

Simple indicator for each branch and overall indicator - 1975

Retirement age: 65. Unemployment rate: 3% (of working population)

(expressed as percentage of GDP)

COUNTRY	OLD AGE	SURVIVORS	INVALIDITY	FAMILY ALLOWANCES	TEMPORARY DISABILITY	UNEMPLOYMENT	HEALTH CARE	TOTAL
BELGIUM	6.29	0.75	1.40	1.14	0.64	0.57	4.69	15.48
DENMARK	5.97	0.63	2.20	1.14	0.89	0.71	4.66	16.20
FRANCE	6.03	0.74	1.57	1.23	0.69	0.59	4.67	15.52
FED.REP. OF GERMANY	6.44	0.80	1.86	1.10	0.73	0.65	4 71	16.29
IRELAND	5.02	0.67	1.38	1.54	0.55	0.52	4,57	14.25
ITALY	5.38	0.90	1.28	1.21	0.56	0.51	4.61	14.45
LUXEMBOURG	6.00	0.96	1.35	1.04	0.62	0.59	4,67	15.23
NETHERLANDS	4.93	0.54	1.01	1.30	0.60	0.53	4.56	13.47
UNITED KINGDOM	6.28	0.68	2.17	1.17	0.78	0.67	4.69	16.44

V.2 Structural changes in the population predicted for 1985 and 1995

Having commented on the important finding in section V.1, in this section we shall summarize and briefly comment on the remaining major findings.

We shall consider only one of the two demographic projections used, the predictions drawn up for the Commission of the European Communities. As has been pointed out, its advantage is that more homogeneous criteria were applied to the difference countries and it has been based on more up-to-date figures.

In addition, for the sake of brevity, the only comparisons made will be between 1975 on the one hand and, on the other, 1985 and 1995.

Starting with the demographic projections, the preliminary observation could be made that the following changes will occur in the total and working populations of individual countries in the period between the dates specified:

PERCENTAGE VARIATIONS BETWEEN 1975, 1985 and 1995

	total population		working population	
	1985/1975	1995/1975	1985/1975	1995/1975
BELGIUM	+ 0.8	+ 1.8	+ 10.5	+ 17.8
DENMARK	+ 3.0	+ 5.5	- 2.5	+ 1.1
FRANCE	+ 5.3	+ 9.2	+ 17.7	+ 24.0
FED. REP. OF GERMANY	- 1.2	- 3.0	+ 7.5	+ 7.9
IRELAND	+ 12.2	+ 28.5	+ 14.0	+ 38.9
ITALY	+ 3.8	+ 6.8	+ 11.1	+ 23.3
LUXEMBOURG	+ 1.1	- 0.2	+ 10.6	+ 9.9
NETHERLANDS	+ 4.5	+ 9.6	+ 6.0	+ 24.7
UNITED KINGDOM	+ 0.7	+ 2.8	+ 8.1	+ 12.4

A point of note is that the working population in every country except Denmark is growing faster than the total population. While this is undoubtedly a positive factor in one sense, it also creates the problem of finding employment for this new labour force.

Turning to the age structure of the individual countries' populations, the following table shows the predicted changes in the percentage of two age groups, 0 - 18 and 65 and over, between 1975 and 1985/1995.

PERCENTAGE VARIATION IN AGE STRUCTURE OF POPULATION BETWEEN 1975 AND 1985 AND BETWEEN 1975 and 1995

	0 - 18		65 and over	
	1985/1975	1995/1975	1985/1975	1995/1975
BELGIUM	- 10.1%	- 9.8%	- 9.3%	- 3.6%
DENMARK	- 1.8%	- 4.4%	+ 16.8%	+ 5.1%
FRANCE	- 8.8%	- 13.0%	- 9.7%	- 1.5%
FED. REP. OF GERMANY	- 20.4%	- 21.8%	0.0	+ 4.9%
IRELAND	- 2.3%	- 3.1%	- 8.0%	- 17.9%
ITALY	- 7.9%	- 14.9%	+ 6.7%	+ 18.5%
LUXEMBOURG	+ 9.1%	+ 5.5%	- 5.3%	+ 2.3%
NETHERLANDS	- 14.5%	- 22.5%	+ 6.4%	+ 14.5%
UNITED KINGDOM	- 10.2%	- 13.0%	+ 4.3%	+ 5.0%

In this table, it will be noted that:

- in the 0 - 18 age group, a reduction in the percentage composition is predicted in every country except Luxembourg, the fall being particularly large in Germany;
- in the 65 and over age group, an increase is predicted in four countries, Denmark, Italy, the Netherlands and the United Kingdom, no change in Germany and a reduction in the remaining four, as far as 1985 is concerned; in 1995, it is predicted that there will be a fall in three countries (Belgium, France and Ireland) and an increase in the other countries.

V.3 The effects of demographic factors on individual branches of social security and on the overall system

Tables V.2, V.2.a, V.3 and V.3.a set out figures that can be used to assess the effects of demographic factors on individual branches of social security and on the social security system as a whole.

Tables V.2 and V.2.a show the variations "in absolute terms" in the simple indicators between 1975 and 1985 and between 1975 and 1995. The variation as it applies to the system as a whole is obviously the algebraic sum of the variations in each of the branches of which it is made up.

Tables V.3 and V.3.a provide a similar comparison between the indicators for 1975 and for 1985 and 1994, although the comparison is made by working out the ratios between the simple indicators for individual branches and the simple indicators for the system as a whole.

Table V.2 clearly shows that the demographic factors - and it should be emphasized that their effect has been assessed on the basis of the Council of Europe Protocol - will, in the ten year period taken into account, bring about increases of at most 0.5% of the per capita gross domestic product in the branches as a whole in six countries, and reductions of up to 0.5% in the remaining three countries. It will also be noted that the largest variations occur in the "old age" and "family allowances" branches, a factor that is linked with the changes in the age structure of the population.

The figures in Table V.2.a show that, according to the assumptions taken into account, over the twenty year period in question, increases will occur in the branches as a whole in eight countries with the maximum increase of 1.4 in Italy. In Ireland, on the other hand, the reduction will be almost one point.

Similar conclusions will obviously be reached in the light of Tables V.3 and V.3.a, which show the variations in the indicators. Overall, these variations will be no greater than ± 4% in 1985, although the maximum changes in 1995 will be closed to ± 10%. There are particularly marked variations in the indicators for invalidity, temporary disability and family allowances.

Our conclusions have to a great extent been confirmed by the qualified indicators, even though the demographic factors included in the latter are not only those pertaining to population structure but also the differences in individual countries' frequencies of invalidity and temporary disability and in their medical care costs. Tables V.4, V.4.a, V.5 and V.5.a - which correspond to Tables V.2, V.2.a, V.3 and V.3.b respectively - can be used to verify these conclusions.

To supplement the conclusions that can be derived from the two sets of indicators provided, a final comparison was made between the qualified indicator for 1985 and 1995 and the simple indicator for 1975, both indicators referring to all branches as a whole. The difference between these two indicators shows the effect of the two types of demographic factors taken into account: population structure and frequency of the events covered by social security.

These differences are the algebraic sum of the differences in each type of factor, as clearly shown by the figures in the following table.

DIFFERENCE BETWEEN THE QUALIFIED INDICATOR FOR 1985 AND 1995 AND THE SIMPLE INDICATOR FOR 1975

	total		due to: population structure		frequency coefficients (a)	
	1985	1995	1985	1995	1985	1995
BELGIUM	- 1.80	- 1.27	- 0.33	- 0.17	- 1.47	- 1.10
DENMARK	-	-	-	-	-	-
FRANCE	-	-	-	-	-	-
FED.REP.GERMANY	+ 0.30	+ 0.51	+ 0.31	+ 0.13	- 0.01	+ 0.38
IRELAND	- 0.63	- 1.07	- 0.57	- 0.94	- 0.06	- 0.13
ITALY	+ 1.77	+ 2.65	+ 0.52	+ 0.84	+ 1.25	+ 1.81
LUXEMBOURG	- 1.16	- 0.71	+ 0.17	+ 0.15	- 1.33	- 0.86
NETHERLANDS	+ 3.62	+ 4.60	+ 0.19	+ 0.49	+ 3.43	+ 4.11
UNITED KINGDOM	- 1.34	- 2.40	+ 0.37	+ 0.12	- 1.71	- 2.52

(a) frequency of occurrence of invalidity, temporary disability and medical care costs

TABLE V.2

Differences in simple indicators (1985-1975) according to branch of social security and as a whole

Retirement age: 65. Unemployment rate: 3% of working population.

COUNTRY	OLD AGE	SURVIVORS	INVALIDITY	FAMILY ALLOWANCES	TEMPORARY DISABILITY	UNEMPLOYMENT	HEALTH CARE	TOTAL
BELGIUM	-0.57	+0.08	+ 0.17	- 0.11	+ 0,10	+ 0.05	- 0.05	- 0.33
DENMARK	+0,53	-0.02	- 0.13	- 0.08	- 0.03	- 0.03	+ 0.05	+ 0.29
FRANCE	-0.58	0.-	+ 0.31	- 0.11	+ 0.12	+ 0.08	- 0.06	- 0.24
FED.REP. GERMANY	+0.20	+0.01	+ 0.14	- 0.22	+ 0.11	+ 0.05	+ 0.02	+ 0.31
IRELAND	-0,38	-0.09	- 0.13	- 0.03	+ 0.06	+ 0.03	- 0.03	- 0.57
ITALY	+0.33	0.-	+ 0.15	- 0.10	+ 0.07	+ 0.04	+ 0.03	+ 0.52
LUXEMBOURG	-0.21	+0.09	+ 0.24	-0,09	+ 0.11	+ 0.05	- 0.02	+ 0.17
NETHERLANDS	+0,31	0.-	+ 0,01	- 0,19	+ 0.01	+ 0.01	+ 0.04	+ 0.19
UNITED KINGDOM	+0.22	-0.05	+ 0.14	- 0.12	+ 0.11	+ 0,05	+ 0.02	+ 0,37

TABLE V.2.a

Difference in simple indicators (1995-1975) according to social security branch and overall

Retirement age: 65. Unemployment rate: 3% (of working population).

COUNTRY	OLD AGE	SURVIVORS	INVALIDITY	FAMILY ALLOWANCES	TEMPORARY DISABILITY	UNEMPLOYMENT	HEALTH CARE	TOTAL
BELGIUM	-0.22	+0.08	+0.40	-0.11	+0.16	+0.08	-0,02	+0.37
DENMARK	+0.49	-0.02	-0.02	-0.10	-0.01	-0.03	+0.05	+0.36
FRANCE	-0.08	-	+0.35	-0.16	+0.14	+0.08	-0.01	+0.32
FED.REP. GERMANY	+0.31	+0.01	+0.48	-0.24	+0.16	+0.05	+0.03	+0.80
IRELAND	-0.87	-0.09	-0.02	-0.05	+0.13	+0.07	-0.08	-0.91
ITALY	+0.95	-	+0.33	-0.18	+0.15	+0,07	+0.09	+1.41
LUXEMBOURG	+0.13	+0.09	+0,37	-0.12	+0.14	+0,05	+0.01	+0.67
NETHERLANDS	+0.72	-	+0.36	-0.29	+0.13	+0,06	+0.07	+1.05
UNITED KINGDOM	+0.27	-0.05	+0.05	-0.15	+0.15	+0.05	+0 03	+0.35

TABLE V.3

Ratio between simple indicators $\frac{1985}{1975}$ x 100

Retirement age: 65. Unemployment rate: 3% (of working population)

	OLD AGE	SURVIVORS.	INVALIDITY	FAMILY ALLOWANCES	TEMPORARY DISABILITY	UNEMPLOYMENT	HEALTH CARE	TOTAL
BELGIUM	90.9	110.7	112.1	90.4	115.6	108.8	98.9	97.9
DENMARK	108.9	96.8	94.1	93.0	96.6	95.8	101.1	101.8
FRANCE	90.4	100.0	119.7	91.1	117.4	113.6	98.7	98.5
FED. REP. GERMAN	103.1	101.3	107.5	80.0	115.1	107.7	100.4	101.9
IRELAND	92.4	86.6	90.6	98.1	110.9	105.8	99.3	96.0
ITALY	106.1	100.0	111.7	91.7	112.5	107.8	100.7	103.6
LUXEMBOURG	96.5	109.4	117.8	91.3	117.7	108.5	99.6	101.1
NETHERLANDS	106.3	100.0	101.0	85.4	101.7	101.9	100.9	101.4
UNITED KINGDOM	103.5	92.6	106.5	89.7	114.1	107.5	100.4	102.3

TABLE V.3.a

Ratio between simple indicators $\frac{1995}{1975}$ x 100

Retirement age: 65. Unemployment rate: 3% (of working population)

COUNTRY	OLD AGE	SURVIVORS	INVALIDITY	FAMILY ALLOWANCES	TEMPORARY DISABILITY	UNEMPLOYMENT	HEALTH CARE	TOTAL
BELGIUM	96.5	110.7	128.6	90.4	125.0	114.0	99.6	102.4
DENMARK	108.2	96.8	99.1	91.2	98.9	95.8	101.1	102.2
FRANCE	98.7	100.0	122.3	87.0	120.3	113.6	99.8	102.1
FED. REP. OF GERMANY	104.8	101.3	125.8	78.2	121.9	107.7	100.6	104.9
IRELAND	82.7	86.6	98.6	96.8	123.6	113.5	98.2	93.6
ITALY	117.7	100.0	125.8	85.1	126.8	107.4	102.0	109.8
LUXEMBOURG	102.2	109.4	127.4	88.5	122.6	114.3	100.2	104.4
NETHERLANDS	114.6	100.0	135.6	77.7	121.7	103.3	101.5	107.8
UNITED KINGDOM	104.3	92.6	102.3	87.2	119.2	109.1	100.6	102.1

TABLE V.4

Differences in qualified indicators (1985-1975) according to branch of social security and overall

Retirement age: 65. Unemployment rate: 3% (of working population).

COUNTRY	OLD AGE	SURVIVORS	INVALIDITY	FAMILY ALLOWANCES	TEMPORARY DISABILITH	UNEMPLOYMENT	HEALTH CARE	TOTAL
BELGIUM	- 0.57	+ 0.08	+ 0.08	- 0.11	+ 0.11	+ 0.05	- 0.07	- 0.43
DENMARK	+ 0.53	- 0.02	- 0.06	- 0.08	-	- 0.03	-	-
FRANCE	- 0.58	0. -	-	- 0.11	+ 0.13	+ 0.08	- 0.05	-
FED.REP. GERMANY	+ 0.20	+ 0.01	+ 0.11	- 0.22	+ 0.09	+ 0.05	+ 0.02	+ 0.26
IRELAND	- 0.38	- 0,09	- 0.04	- 0.03	+ 0,02	+ 0.03	- 0.05	- 0.54
ITALY	+ 0.33	0.-	+ 0.15	- 0.10	+ 0.08	+ 0.04	+ 0.03	+ 0,53
LUXEMBOURG	- 0.21	+ 0,09	+ 0.19	- 0.09	+ 0.11	+ 0.05	+ 0.12	+ 0,26
NETHERLANDS	+ 0.31	0. -	+ 0.01	- 0.19	+ 0.02	+ 0.01	+ 0.04	+ 0.20
UNITED KINGDOM	+ 0.22	- 0,05	+ 0.11	- 0.12	+ 0.19	+ 0.05	+ 0.02	+ 0.42

TABLE V.4.a

Differences in qualified indicators (1995-1975), according to social security branch and overal

Retirement age: 65. Unemployment rate: 3% (of working population)

COUNTRY	OLD AGE	SURVIVORS	INVALIDITY	FAMILY ALLOWANCES	TEMPORARY DISABILITY	UNEMPLOYMENT	HEALTH CARE	TOTAL
BELGIUM	-0.22	+0,08	+0.12	-0.11	+0.18	+0.08	-0,03	+0.10
DENMARK	+0,49	-0.02	-0,03	-0.10	-	-0.03	-	-
FRANCE	-0,08	-	-	-0.16	+0.15	+0,08	-	-
FED.REP. GERMANY	+0,31	+0.01	+0,15	-0.24	+0.16	+0.05	+0.03	+0.47
IRELAND	-0.87	-0.09	+0,02	-0.05	+0.06	+0.07	-0.12	-0.98
ITALY	+0.95	-	+0,33	-0.18	+0,16	+0,07	+0.08	+1,41
LUXEMBOURG	+0,13	+0,09	+0.28	-0.12	+0.13	+0.05	+0.15	+0,71
NETHERLANDS	+0.72	-	+0.42	-0.29	+0.19	+0.06	+0,08	+1.18
UNITED KINGDOM	+0.27	-0,05	-0.27	-0.15	-0,51	+0,05	+0.02	-0,64

TABLE V.5

Ratio between qualified indicators $\frac{1985}{1975}$ x 100

Retirement age: 65. Unemployment rate: 3% (of working population).

COUNTRY	OLD AGE	SURVIVORS	INVALIDITY	FAMILY ALLOWANCES	TEMPORARY DISABILITY	UNEMPLOYMENT	HEALTH CARE	TOTAL
BELGIUM	90.9	110.7	109.1	90.4	114.7	108.8	98.1	97.0
DENMARK	108.9	96.8	94.1	93.0	-	95.8	-	-
FRANCE	90.4	100.0	-	91.1	113.7	113.6	98.9	-
FED. REP. GERMANY	103.1	101.3	107.5	80.0	109.0	107.7	100.4	101,6
IRELAND	92.4	86.6	81.8	98.1	105.3	105.8	99.1	96.2
ITALY	106.1	100.0	111.7	91.7	108.8	107.8	100.5	103.4
LUXEMBOURG	96.5	109.4	118.6	91.3	111.7	108.5	103,7	101.9
NETHERLANDS	106.3	100.0	100.6	85.4	101.3	101,9	100,6	101.2
UNITED KINGDOM	103.5	92.6	111.8	89.7	111.3	107.5	100.6	102,9

TABLE V.5.a

Ratio between qualified indicators $\frac{1995}{1975}$ x 100

Retirement age: 65. Unemployment rate: 3% (of working population)

COUNTRY	OLD AGE	SURVIVORS	INVALIDITY	FAMILY ALLOWANCES	TEMPORARY DISABILITY	UNEMPLOYMENT	HEALTH CARE	TOTAL
BELGIUM	96.5	110.7	113.6	90.4	124.0	114.0	99.2	100.7
DENMARK	108.2	96.8	97.0	91.2	-	95.8	-	-
FRANCE	98.7	100.0	-	87.0	115.8	113.6	100.0	-
FED.REP. GERMANY	104.8	101.3	110.2	78.2	116.0	107.7	101.7	102.9
IRELAND	82.7	86.6	109.1	96.8	115.8	113.5	97.9	93.1
ITALY	117.7	100,0	125.8	85.1	117.6	107.4	101.5	109.0
LUXEMBOURG	102.2	109.4	127,5	88.5	113.8	114.3	104.6	105.1
NETHERLANDS	114.6	100.0	124.1	77.7	112,8	103.3	101.3	107.0
UNITED KINGDOM	104.3	92,6	70,2	87.2	69.6	109.1	100.6	95.6

V.4 The alternative hypotheses

As explained in previous chapters, alternative hypotheses relating to certain social security branches were taken into account.

In the first place, two rates of unemployment have been assumed: 3% and 6%. All the data set out in the preceding sections are based on the hypothesis that the unemployment rate is 3% of the working population, as already stated.

It may be helpful at this point to show the increase in the simple indicators for all branches in the years 1975, 1985 and 1995 when the unemployment rate is increased from 3% to 6%.

PERCENTAGE INCREASE IN SIMPLE INDICATORS WHEN ASSUMED UNEMPLOYMENT RATE IS INCREASED FROM 3% TO 6%

	1975	1985	1995
BELGIUM	3.7	4.1	4.0
DENMARK	4.4	4.1	4.2
FRANCE	3.8	4.4	4.2
FED. REP. GERMANY	4.0	4.2	4.1
IRELAND	3.6	4.0	4.3
ITALY	3.5	3.7	3.7
LUXEMBOURG	3.9	4.2	4.0
NETHERLANDS	3.9	4.0	4.1
UNITED KINGDOM	4.1	4.3	4.3

The alternative hypothesis taken into account related to the pensionable retirement age. With the figures quoted up to this point, the assumption has been that the retirement age is 65. The decision was reached to give thought to the hypothesis of a retirement age of 60: in many countries, this age is closer to the regulations in force and in some cases it is even higher than the actual retirement age (in Italy, for example, the minimum pensionable retirement age for women is 55).

Tables V.6 and V.6.a, which refer to simple indicators, show the main findings from this additional research, expressed as ratios between the indicators for 1985 and 1995 and the indicators for 1975.

For a better understanding of the differences that occur when the pensionable age is deemed to be 65 and when it is deemed to be 60, we have worked out the percentage increases in the simple indicators for the social security system as a whole under the two hypotheses in 1975, 1985 and 1995, the unemployment rate being assumed to be 3% in both cases.

PERCENTAGE INCREASES IN SIMPLE INDICATORS IF THE ASSUMED RETIREMENT AGE IS REDUCED FROM 65 TO 60

	1975	1985	1995
BELGIUM	14.3	16.9	11.4
DENMARK	13.5	13.5	8.5
FRANCE	13.5	15.2	10.5
FED. REP. GERMANY	16.6	15.7	11.3
IRELAND	12.2	12.8	7.1
ITALY	15.6	15.3	11.7
LUXEMBOURG	15.1	14.4	13.0
NETHERLANDS	19.0	17.4	11.2
UNITED KINGDOM	13.4	13.7	8.4

TABLE V.6

Ratio between simple indicators $\frac{1985}{1975}$ x 100

Retirement age: 60. Unemployment rate: 3% (of working population)

COUNTRY	OLD AGE	SURVIVORS	INVALIDITY	FAMILY ALLOWANCES	TEMPORARY DISABILITY	UNEMPLOYMENT	HEALTH CARE	TOTAL
BELGIUM	96.3	108.7	120.5	90.4	116. 4	111.1	98.9	100.1
DENMARK	105.4	97.3	98.8	93.0	97.6	97.0	101.1	101.8
FRANCE	94.2	111.4	125.7	91.1	119.1	103.8	98.7	100.0
FED. REP. GERMANY	98.6	101.3	126.2	80.0	118.5	114.3	100.4	101.1
IRELAND	91.2	85.4	101.1	98.1	113.7	110.4	99.3	96.5
ITALY	103.5	100.0	118.3	91.7	115.1	109.3	100.7	103.4
LUXEMBOURG	95.6	111.7	124.1	91.3	120,3	110.6	99.6	100.5
NETHERLANDS	102.4	100.0	101.2	85.4	101.7	97.2	100.9	100,1
UNITED KINGDOM	102.6	89.7	108.7	89.7	115.3	109.7	100.4	102.5

TABLE V.6.a

Ratio between simple indicators $\frac{1995}{1975}$ x 100

Retirement age: 60. Unemployment rate: 3% (of working population)

COUNTRY	OLD AGE	SURVIVORS	INVALIDITY	FAMILY ALLOWANCES	TEMPORARY DISABILITY	UNEMPLOYMENT	HEALTH CARE	TOTAL
BELGIUM	98.1	108.7	142.0	90.4	127.9	118.5	99.6	99.7
DENMARK	101.0	97.3	113.3	91.2	102.4	100.7	101.1	97.8
FRANCE	98.9	111.4	134.4	87.0	123.1	117.0	99.8	99.4
FED. REP. GERMANY	103.2	101.3	151.5	78.2	126.5	106.9	100.6	100.2
IRELAND	78.7	85.4	123.4	96.8	129.4	120.8	98.2	89.4
ITALY	112.5	100.0	135.6	85.1	128.3	118.6	102.0	106.0
LUXEMBOURG	105.8	111.7	132.4	88.5	123.7	110.6	100.2	102.5
NETHERLANDS	107.4	100.0	145.1	77.7	122.4	110.3	101.5	100.7
UNITED KINGDOM	98.3	89.7	114.3	87.2	122.2	114.5	100.6	97.6

It is certain that if the variation in the retirement age had been limited to one or two years then the aforementioned percentage increases would have been proportionately less. By means of fairly accurate guess work one can estimate for example that given a retirement age of 64 the corresponding indicator could be calculated by increasing the value of the indicator given for a retirement age of 65 by a percentage equal to one fifth of the percentage increases mentioned in the hypothesis where the retirement age is lowered from 65 to 60.

In order to conclude the examination of alternative hypotheses, expressed by means of indicators, Table V-7 has been produced. In this Table two extreme cases are considered, one for retirement and the other for unemployment, to give for 1995:

A. "an optimistic" forecast, based on a 3% unemployment rate with the retention (or raise) of retirement at 65;

B. "a pessimistic" forecast, based on an unemployment rate of 6% and a lowering of the retirement age to 60.

The figures in the Table represent the increase of the simple indicators during the period 1975-1995 on the basis of hypothesis A, as well as the breakdown of the increase which is confirmed in 1995 if one moves to hypothesis B from hypothesis A.

The total increase is then expressed as a percentage of the indicators for 1975 (hypothesis A).

In whole numbers the different increases vary from 15 to 26% with the exception of the figures for Ireland where growth is limited to 4.4%.

TABLE V.7

(Relative and absolute) increases in the simple indicators for the period between 1975 and 1995) taking into account "optimistic" and "pessimistic" situations for unemployment and age of retirement.

SIMPLE INDICATORS

Country	1975 MIN	Diff. % 1995-1975	1995 MIN	Additional difference for 1995				1995 MAX	Diff. % 1995 MAX 1975 MIN
				6% unemployment	Retirement at 60	Other (x)	TOT.		
Belgium	15,48	0,37	15,85	0,63	2,37	-0,56	2,44	18,29	18,2%
Denmark	16,20	0,36	16,56	0,67	2,01	-0,59	2,09	18,65	15,1%
France	15,52	0,32	15,84	0,64	2,24	-0,56	2,32	18,16	17,0%
Germany	16,29	0,80	17,09	0,69	2,58	-0,64	2,63	19,72	21,1%
Ireland	14,25	-0,91	13,34	0,57	1,41	-0,45	1,53	14,87	4,4%
Italy	14,45	1,41	15,86	0,57	2,41	-0,56	2,42	18,28	26,5%
Luxembourg	15,23	0,67	15,90	0,61	2,78	-0,70	2,69	18,59	22,1%
Netherlands	13,47	1,05	14,52	0,59	2,04	-0,41	2,22	16,74	24,3%
United Kingdom	16,44	0,35	16,79	0,70	2,13	-0,71	2,12	18,91	15,0%
Italy (retirement at 60)	16,70	1,01	17,71	0,57	-	-	0,57	18,28	9,5%

MIN : 3% unemployment, retirement at 65; MAX : 6% unemployment, retirement at 60

(x) The result of the lowering of the retirement age from 65 to 60 on the different risks: survivors, invalidity, temporary disability; the analogous effect on the unemployment risk is contained in the column with figures for unemployment at 6%; there are no effects on health care or family benefits.

V.5 Comparison with Social Accounts

In section IV.5, we stated that a decision had been made to compare the simple and the qualified indicators and the findings published in the Social Accounts, expressed as a percentage of the gross domestic product.

RATIO BETWEEN EXPENDITURE ON BENEFITS AS PUBLISHED IN THE SOCIAL ACCOUNTS AND THE SIMPLE AND QUALIFIED INDICATORS (X 100)

	Simple indicators	Qualified indicators
BELGIUM	142.1	155.9
DENMARK	166.7	-
FRANCE	139.2	-
FED. REP. GERMANY	172.5	172.1
IRELAND	138.2	139.1
ITALY	150.2	138.3
LUXEMBOURG	151.0	166.5
NETHERLANDS	200.4	159.9
UNITED KINGDOM	124.1	139.0

These figures call for the comment that they supply the answer to a specific question: is the level of social security cover in any given country during the year to which the comparison refers higher or lower than the cover that would ensue if the minimum standards set out in the Council of Europe Protocol on the European social security Code were applied? It can be observed that the minimum standards have been easily exceeded in all the countries concerned in 1975. It is a very welcome finding and demonstrates the marked progress made by all the member states in the field of social security.

One objection could, however, be made to the figures previously presented. The Protocol standards are in fact based on earnings, not on the per capita gross domestic product. There is no doubt that average earnings in the member states are somewhat higher than the gross domestic product per head of population. Had the indicators been based on earnings, they would certainly have been higher, so that the difference between the existing level of social security cover and the cover as prescribed by the Council of Europe Protocol on the European social security Code would have been less marked. Unfortunately, the Protocol supplies no specific information on the type of average earnings that should be taken into account. There are, moreover, substantial difficulties in using EEC statistics, one of the problems being that there is no information on trends in earnings by comparison with age and length of service in employment.

It may be assumed, therefore, that the ratios described are over-estimates, although a few soundings that have been made appear to show that the qualitative conclusion on the actual social security cover being better than the minimum standards is in fact valid.

TECHNICAL BASES

SCHEDULE 1

Average invalidity coefficients, by sex and age
(per 100 head of population)

AGE GROUP	MALE	FEMALE
20 - 24	0.03	0.03
25 - 29	0.30	0.57
30 - 34	0.85	1.93
35 - 39	1.90	4.73
40 - 44	4.20	9.97
45 - 49	8.80	19.00
50 - 54	17.00	29.00
55 - 59	25.00	39.00
60 - 64	33.00	49.00

SCHEDULE 2

Specific invalidity coefficients by sex and age (per 100 head of population)

COUNTRY	AGE	YEAR 1965 M	1965 F	1970 M	1970 F	1975 M	1975 F
BELGIUM	Total	3.54	2.85	4.16	3.16	4.90	4,14
DENMARK	under 25					0.25	0.21
	26 - 34					1.25	1.38
	35 - 44					2.49	3.34
	45 - 54					5.68	7.03
	55 - 66					15.44	13,35
FED.REP.GERMANY	Total	6.20		6.24		6,81	
IRELAND	Total			1.97	1.20	1.44	0.79
ITALY	24 and under	0.02		0,03	0.03	0.03	0,03
	25 - 29	0.21		0,23	0.42	0.30	0.57
	30 - 34	0.60		0,55	1.26	0.85	1.93
	35 - 39	1.45		1,21	2.98	1.90	4.73
	40 - 44	3.01		2.73	6.29	4.20	9.97
	45 - 49	5.59		5.20	13.46	8.80	19,00
	50 - 54	11.20		10,00	21.00	17.00	29.00
	55 - 59	21.00		22.07	34.00	25.00	39.00
	60 - 64	31.00		31.00	42.00	33,00	49,00
LUXEMBOURG	20 and under					0.03	
	21 - 30	0.12	0.24	0.20	0 25	0.15	0.14
	31 - 40	0.55	2.18	0.72	1.55	0.70	1.20
	41 - 50	2.37	7.74	2.71	5 88	2.74	5.39
	51 - 60	15.35	40.00	16.31	40.00	16.52	36,45
	Over 60	30,00	50,00	30.00	50.00	30,00	50.00
NETHERLANDS	19 and under			0,25	0.10	0.37	0,21
	20 - 24			0.69	0.54	1,29	1,21
	25 - 29			1.73	2.76	2.30	3,80
	30 - 34					3.93	7.09
	35 - 39			4.76	6,47	6.36	9.06
	40 - 44					10,49	12.51
	45 - 49			9.32	11.37	15,86	17,13
	50 - 54			15.19	19.35	24.44	28,15
	55 - 59			25.74	32.60	39,63	44,03
	60 - 64			35.00	40.00	45,00	50.00
UNITED KINGDOM	24 and under			0.24	0.24	0.19	0.34
	25 - 29			0.40	0.78	0 38	0.70
	30 - 34			0,54	1.33	0.78	1,51
	35 - 39			0,89	2.17	1.03	2.04
	40 - 44			1.21	3.98	1.43	3.96
	45 - 49			1.91	4.60	2.11	4.94
	50 - 54			2.84	6,98	3.24	6.88
	55 - 59			4,78	10,20	5 28	10.61
	60 - 64			10.28	15.00	11.31	15.00

Note: No figures available for France

SCHEDULE 3

Average temporary disability coefficients, by sex and age (per 100 head of population)

Age group	Male	Female
15 - 19	1.82	3.67
20 - 24	1.94	4.91
25 - 34	2.15	5.82
25 - 44	2.54	5.43
45 - 54	3.10	5.22
55 - 64	3.72	5.22

SCHEDULE 4

Specific temporary disability coefficients, by sex and age
(x 100)

COUNTRIES	AGE	YEAR 1965 M	1965 F	1970 M	1970 F	1975 M	1975 F
	Under 20	0.82	1,65	0.62	1.71	0.92	1.95
	20 - 24	1.21	4.88	1.27	5.90	1.53	5.96
	25 - 29	1.52	5.56	1,49	6.38	1.89	6,78
	30 - 34	1.91	5.50	1.87	6,07	2,18	5.54
	35 - 39	2,35	5.26	2.39	5.66	2.60	5,65
ELGIUM	40 - 44	2,78	5.44	2.81	6.00	3.22	6,18
	45 - 49	3,18	5,56	3,61	6.98	3.84	6,54
	50 - 54	4,21	6.45	4.07	7.12	5,01	7.48
	55 - 59	6,05	6,95	5.99	7.24	5.51	6,08
	60 - 64	9,39	5.99	9.08	3.40	8.29	3,65
ANCE	Total	5.62		4.68		4.86	
	15 - 19	4.02	3.51	4.14	4.00	1.99	2.58
	20 - 24	4.45	5.60	4 64	6.11	3.15	4.34
D. REP. GERMANY	25 - 34	4.62	5.90	4.85	6.28	3.72	4.80
	35 - 44	5.21	5.98	5.44	6.36	4.24	4.88
	45 - 54	6.43	6.64	6.85	6.87	5.20	5.40
	55 - 64	9,34	7.33	10.26	8.04	8.41	6.85
ELAND	Total	3.26	2,52	4.60	4.11	2.11	2.38
ALY	Total	3.41		3.49		5.41	
	Under 21	2.04	1.88	2.54	2.02	2.86	2,20
	21 - 30	3.05	2.88	2.64	2.92	3.09	2.86
	31 - 40	2.93	2,65	2.22	2.54	3.70	3.77
UXEMBOURG	41 - 50	3,56	2.31	3,80	1.93	3.75	2.92
	51 - 60	4,61	3,01	5,29	4,91	9.83	5.68
	Over 60	7.81	3,29	6.75	4,29	26.77	10.98
ETHERLANDS	Total	5.35		6.86		8,36	
	Under 20	1.56	2,00	1.92	2.36	1.80	2.22
	20 - 24	1.73	2.55	2.22	2,77	2.00	2 79
	25 - 29	1.84	3,04	2.38	3,40	2.11	3.34
	30 - 34	2.25	4,22	2.88	4,71	2.58	4.25
NITED KINGDOM	35 - 39	2.60	5.23	3.18	5.84	3.01	5.18
	40 - 44	2,99	5.97	3.73	6.52	3.51	6,22
	45 - 49	3.48	7,32	4.55	7.42	4,22	7.16
	50 - 54	4,58	9.10	5.64	10.36	5.64	9.21
	55 - 59	6.74	11.10	7.95	12.36	7.69	12,19
	60 - 64	11.48	6.77	13.04	7,67	13.23	10,19

Note: No specific figures available for Denmark

SCHEDULE 5

Average annual cost of health care as a percentage of gross domestic product per head of population - 1975

COUNTRY	A	B
BELGIUM	2.91	8.79
DENMARK	-	-
FRANCE	4.21	8.03
FED. REP. GERMANY	4.26	8.50
IRELAND	5.15	11.05
ITALY	5.07	8.67
LUXEMBOURG	2.88	6.79
NETHERLANDS	5.77	11.14
UNITED KINGDOM	2.64	7.13
Average	4.10	8.35

A. Persons below retirement age.

B. Persons of or over retirement age