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EMPLOYEE BENEFITS
IN THE CONTEXT OF
EUROPE 1992

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The political and economic changes which are captured by the phrase "Europe 1992" have implications both within Europe and without. For example, concern has been expressed in the U.S. about the potential impacts of greater European integration on U.S. exports to Europe. Certainly, the effects of 1992 on European international competitiveness have been much discussed. But the movement towards Europe 1992 raises public policy issues within Europe in all fields of economic endeavor and regulation, including the labor market. Since the U.S. faces many similar issues, both Europe and the U.S. have the potential of learning from each other's examples.¹

Employee benefits have come to be important elements of labor compensation in many countries. Certain types of services, such as the provision of retirement income and health insurance, are the favored objects of social policy in all developed countries. Often, provision of these services is linked to employment, i.e., eligibility and benefit levels may be geared to an individual's work history. But the precise way in which retirement income and health benefits are provided is subject to considerable variation. Thus, there is an opportunity for comparative international learning about the options available. And there is also the possibility that the functioning of the labor market can be influenced by the options chosen.

In some countries, these retirement and health benefits are state provided and financed through payroll taxes. In other cases, there may be general revenue funding and no particular link to employment. Sometimes employers are left to administer what are essentially national systems; sometimes employers are simply encouraged to provide benefits by way of tax incentives as supplements to public systems.

Various motivations can be cited for the public interest in fostering and subsidizing retirement income and health benefits. An element of paternalism is clearly involved; there is a sense that left to his/her own devices the average person will "inadequately" prepare for income needs in old age or for the expenses of illness. Needs may be defined in terms of some basic across-the-board standard or in terms of an accustomed living standard (as when pensions are linked to past wages).

There are also externalities involved, especially in the health area. The poor health status of an individual may place others at risk. And there may be a pragmatic realization that government, through general welfare payments, will have to pick up some of the costs of retirement income and health care for those who do not make adequate provision for themselves. Given that reality, the option of requiring or encouraging alternatives to general relief looks more attractive.

Because of the common experience of all developed countries in addressing these issues, the focus in

this study is mainly on retirement income (though social security and through pension schemes) and health care (through public insurance or provision or private insurance). In principle, both retirement income and health care can be encouraged and/or provided outside the employment relationship, creating a potential option. Such an option does not exist for certain other kinds of benefits - such as leaves from work and vacations - which are inherently work related. Hence, regulation and provision of these "conditions of work" are excluded from the analysis. Also excluded are benefits such as company cars which have little or no social welfare implications and have basically evolved as tax-avoidance devices.

I. Background on Europe 1992.

The European Community began largely as an agreement to create a customs union among six Western European countries. Membership has grown in fits and starts to twelve countries, with the possibility in the background of additional members as varied as Sweden and Turkey. As of the late 1980s, the EC encompassed a population 30% larger than that of the U.S. and a labor force 16% larger. Estimates of the welfare "gains" from expanded trade due to the greater integration implied by Europe 1992 are on the order of 5%.² But, as will be noted below, such small percentage estimates obscure the potential change in the employment relationship that could be entailed.

Economic development of the member countries varies considerably. In the labor market, countries at a lower stage of economic development such as Portugal and Greece have markedly lower wage levels than, say, France or Germany. Britain appears between these extremes. (Table 1) For purposes of this study, the emphasis is on three countries in the mid-to-upper range of the pay and living standards continuum: France, Germany,³ and Britain. These countries combined account for more than half of the EC labor force.

i. Influences on Social Policy.

As can be seen from Table 2, the mix of pay between direct wages and various types of benefits differs considerably across the three countries. France - largely through government regulation and promotion - has diverted the largest proportion of pay into social benefits and workplace supplements. Britain has diverted the lowest proportion and would look quite similar to the U.S., were it not for its national health care system. Germany appears in an intermediate position.⁴

The countries vary in addition in the degree to which employer discretion applies to benefit plans.

Table 1

**Hourly Compensation Costs as Manufacturing as Percent
of West German Level**

Country	1975	1980	1985	1989
Germany	100	100	100	100
France	71	73	79	72
U.K.	52	60	65	59
Portugal	25	17	16	16
Spain	41	48	50	52
Greece	27	30	38	31

Source: U.S. Bureau of Labor Statistics, Supplementary Tables for BLS Report 794, October 1990, Table 2.

Table 2

**Composition of Manufacturing Pay
(Percent of Total Pay)**

	France		Germany		U.K.		U.S.	
	1975	1989	1975	1989	1975	1989	1975	1989
Direct Pay	74.3	68.6	80.6	78.1	88.5	84.9	83.3	80.3
For Hours Worked	60.0	53.4	61.5	57.2	78.9	73.6	75.9	73.2
Other	14.3	15.2	19.1	20.9	9.6	11.3	7.4	7.2
Indirect Pay	25.7	31.4	19.4	21.9	11.5	15.1	16.7	19.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: U.S. Bureau of Labor Statistics, Supplementary Tables for BLS Report 794, October 1990, Tables 10-13.

French pay has a relatively large component officially designated by the EC statistical authorities as legally required. Yet much of what the EC designates as a "customary expenditure" for France in fact represents payments to national funds. These funds are "private" in form but in fact resemble social security systems in other countries. Generally, French workplace conditions are the most tightly regulated.⁵ Of the three European states, the U.K. gives its employers the greatest freedom in setting the mix of direct pay and benefits. (Tables 3A-C) What determines the mix of pay and the public/private composition of pay?

In a number of European countries (including Britain until the Thatcher government), there has been a tradition of involving the "social partners" - which essentially means representatives of unions and management with regard to labor-market programs - in such policy making. How much involvement there was, and the degree to which class antagonisms affected participation, varied substantially among countries. Nonetheless, while Americans tend to see unions and management organizations as simply "interest groups," in the European corporatist tradition obtaining consensus from the social partners is viewed as a way of achieving social harmony.⁶ This approach is being extended into the evolving international EC institutional framework.

In the benefits area, however, management interests vary. Large multinational firms would ideally like more uniform legal requirements and benefit practices across the EC states. Small, nationally-oriented employers would prefer a) to keep administrative complexity down and b) to protect the national systems which have previously evolved and in which they have had an influence in forming. Both large and small employers worry about the impact of benefits on labor costs and competitiveness, an issue discussed later.

Unions tend to see benefits as a social matter and are inherently less concerned about cost issues. In many respects they are less well equipped to deal with the technical complexities of benefits, e.g., demographics, actuarial calculations, etc. Within the terminology of the Brussels European Commission bureaucracy, unions are mainly concerned with the issues of Directorate General V - Employment, Social Affairs, and Education.⁷ Unions tend to view the EC mechanism as a potential way of extending social protections, but are fearful of the potential increase in competition of Europe 1992 and its impact on labor standards.⁸

Yet benefits raise other issues, issues apart from the concerns of DG-V. Especially in the case of pension plans, financial considerations are involved. Multinational employers large enough to have significant pensions funds in various countries will have concerns about the administrative regulations within the EC that

Table 3A

**Labor Cost of All Employees in Establishments
of Ten or More Workers: France, 1984**

	Manufacturing, Mining, Construction and Utilities	Wholesale and Retail Trade	Credit Institutions	Insurance
Direct Costs	68.1%	70.3%	62.7%	64.1%
Legally- required	19.4	20.0	16.1	16.9
Customary Expenditures on:				
Insurance	.2	.2	.3	.1
Retirement	4.7	3.6	6.3	5.8
Other	3.8	3.2	3.9	3.5
Total	8.7	7.0	10.5	9.4
Other	3.8	2.7	10.7	9.6
Total	100.0	100.0	100.0	100.0

Source: Office for Publications of the European Communities, Labour Costs 1984 (Luxemburg: EC, 1986), pp. 184-5, 316-7, 354-5, 356-7.

Table 3B

**Labor Cost of All Employees in Establishments
of Ten or More Workers: West Germany, 1984**

	Manufacturing, Mining, Construction and Utilities	Wholesale and Retail Trade	Credit Institutions	Insurance
Direct Costs	76.7%	79.3%	74.0%	74.3%
Legally- required	16.4	15.7	13.9	13.9
Customary Expenditures on:				
Insurance	.1	0.0	.1	.2
Retirement	4.4	2.1	7.4	8.7
Other	.1	.1	.9	.3
Total	4.6	2.2	8.4	9.2
Other	2.3	2.8	3.7	2.6
Total	100.0	100.0	100.0	100.0

Source: Office for Publications of the European Communities, Labour Costs 1984 (Luxemburg: EC, 1986), pp. 184-5, 316-7, 354-5, 356-7.

Table 3C

**Labor Cost of All Employees in Establishments
of Ten or More Workers: U.K., 1984**

	Manufacturing, Mining, Construction and Utilities	Wholesale and Retail Trade	Credit Institutions	Insurance
Direct Costs	82.9%	83.9%	77.7%	78.9%
Legally- required	7.6	7.4	5.2	5.5
Customary Expenditures on:				
Insurance	-	-	-	-
Retirement	-	-	-	-
Other	-	-	-	-
Total	7.0	6.9	14.3	12.6
Other	2.5	1.8	2.8	3.0
Total	100.0	100.0	100.0	100.0

- = not available.

Source: Office for Publications of the European Communities, Labour Costs 1984 (Luxemburg: EC, 1986), pp. 184-5, 316-7, 354-5, 356-7.

Table 4

Tenure on Current Job

	Percent of Workers with Tenure Under 2 Years	Percent of Workers with Tenure of 20 Years or More	Average Length of Tenure (years)
France	17.8%	13.2%	9.5
Germany	18.6	15.1	10.0
U.K.	27.5	10.0	8.5
U.S.	38.5	10.0	7.8

Note: Data for France and Germany refer to 1978. Data for the U.K. refer to 1984. Data for the U.S. refer to 1983.

Source: Organisation for Economic Co-operation and Development, Flexibility in the Labour Market: The Current Debate (Paris: OECD, 1986), Table II-1.

affect portfolio management. Also concerned are financial service enterprises which see potential markets for administering benefit programs, given a hospitable regulatory climate. Thus, a segment of the management community, and the considerable financial services industry, views benefit issues from the vantage point of DG-XV - Financial Institutions, Company Law, and Tax.

ii. Social Europe.

As part of the movement toward Europe 1992, there has been considerable discussion of the "social dimension" and "Social Europe".⁹ Generally, these discussions, and related programs, have focused on cross-border mobility (about which more will be said below), unemployment that might be produced by greater economic integration, and broad worker rights (consultation, safety and health, training, etc.). There is also concern that competition within the EC from low-wage areas would lead to job displacement and reduce social standards ("social dumping"), absent some institutional structures to prevent it.¹⁰ A general Social Charter - designed to be the framework for such structures - was produced and adopted by 11 of the 12 EC heads of state (the U.K. dissenting). Parallel efforts - aimed less at lofty principles and more at specific actions - are also developing.¹¹

The Charter touches on various aspects of remuneration and which could eventually affect benefit arrangements.¹² For example, the document indicates that part-time or temporary workers should "benefit from an equitable reference wage" related to wages of regular workers. If "wage" were to be interpreted to include benefits (from which temporaries and part-timers may be excluded), pressures would arise to cover such employees in countries where these practices are not required.¹³

Under the heading social protection, an earlier draft of the Social Charter suggested that social security should be proportionately extended to part-time workers whereas in the final document this proposal was watered down to suggest that participation in social security should be "adequate."¹⁴ However, the Commission has proposed a directive that would return to a proportionality standard.¹⁵ It should be noted that in European usage, the term "social security" may not be limited just to government-run benefit programs.¹⁶ The final disposition of proposed EC policies on so-called "atypical" workers remains in doubt due to legal questions concerning the method of adoption and opposition to specific proposals. However, the debate is symptomatic of the potential reach of EC policies into national labor markets.¹⁷

The EC administrative framework also includes an additional channel for influencing benefits policy,

the importance of which is likely to grow. EC obligations are subject to judicial review by the Court of Justice. Court decisions can in some cases override national legislation, as did a recent case overturning discrepant retirement ages for men and women under a British pension plan.¹⁸ Such authority can affect even statutory plans; in the British case, for example, current U.K. social security arrangements provide for differential retirement ages for men and women. If social security arrangements are eventually changed by such court actions, private pensions will be indirectly affected.¹⁹ Part of the reason for discrimination by sex in private British pensions is that the private schemes are sometimes designed to wrap around - and partially offset - the favoring of women in the public program.²⁰

Although European corporatism - and the propensity for government regulation - may seem to hinder labor-market flexibility, that result need not be the outcome. Some programs, such as subsidies to retraining, may assist labor mobility. More significantly for purposes of this essay, corporatist benefit structures can be more compatible with labor mobility than more decentralized approaches. Whether this is so depends importantly on how the decentralized plans are structured.

II. Economic and Political Implications for the Labor Market.

At the political level, the implications of the growing integration of Europe 1992 is much the same for labor market policy as it is for any other policy. National sovereignty is reduced; more decisions on public policy toward the labor market will be made at the EC level and fewer at the national level. The impact will be felt both for explicitly public arrangements (such as government-run social security systems) and for private arrangements which operate with public encouragement.

Undoubtedly, however, most public policy toward the labor market will remain at the national level. Attempts to move to, say, a uniform social security system across all EC countries would quickly run afoul of a) national traditions, and b) the practical problem of making a transition in twelve national systems with millions of people already in the pipeline under the existing arrangements. Even the notion of a fuzzier "harmonization" of social security systems through general EC guidelines is a goal largely confined to internal discussions within the EC bureaucracy.²¹ To the extent that harmonization occurs in the near term, it may take the form of European Court decisions (of the type already cited) on aspects of national social security systems which violate some broad EC policy.

At the economic level, much of the discussion of Europe 1992 has focused on transitional adjustments

which might involve increased unemployment. The focus on unemployment is understandable, since a number of major European countries experienced high unemployment rates in the 1980s.²² However, the emphasis on unemployment during a transition period of industrial restructuring toward comparative advantage obscures other changes in the labor market and industrial relations which are likely to accompany Europe 1992.

i. Increased Competition.

A shift toward a more competitive product market - which is the major economic implication of Europe 1992 - is bound to bring with it a more competitive labor market. Directives and programs in the spirit of Social Europe may cushion some of this impact, but cannot prevent it. Even apart from Europe 1992 adjustments, there are other changes in labor markets which are difficult to reconcile with traditional views of how the employer-employee or the employer-union relationship should be conducted. Generally, the labor market is becoming "disorganized" along with other aspects of economic life, both in the EC and elsewhere.²³

The corporatist view of the employment relationship involves an enlightened, perhaps paternal, employer which provides career opportunities and stability of employment. Where national public policies do not preclude or override such actions, the "ideal" relationship often includes a generous program of private social insurance. At the EC level (although not always at the national level), unions are accepted as partners by the employer; consultation and cooperation rather than conflict is to be the rule.

Of course, this ideal has always proven difficult to achieve. But a combination of protective national policies shielding employers from "excessive" competition and other public policies encouraging or requiring elements of the traditional approach was able to provide a semblance of the ideal model. In effect, policies limiting product-market competition provided an "ability to pay" for the desired attributes of the employment relationship. Ability to pay was then turned into actual practice via mandates, incentives, or social norms. Putting more competition in the picture via Europe 1992 reforms will make attainment of the ideal model more difficult. Product-market competition will squeeze employer ability to pay and/or make it less certain that ability to pay will continue. Member countries will be less able to protect favored employers.

Other forces operate now to make the traditional ideal less attainable. Financial markets have become more integrated and more volatile. Should plans for a common European currency come to pass, such capital-market integration within Europe will be even tighter. Even the current monetary mechanism of currency

coordination has reduced exchange rate risk and facilitated capital flows across borders. Financial instruments can make corporate restructuring easier by financing takeovers, spinoffs, and acquisitions. In the financial view of the firm, an enterprise is not an organization but rather a portfolio of assets which can be rearranged if they do not perform adequately. With the identity of the employer always at risk, the ability to carry out a stable employment relationship erodes.

Although some or all of the EC countries may eventually have a common "ecu" currency, the potential for significant ecu fluctuations against non-EC currencies such as the dollar or yen will continue to exist, as the experience of the 1980s demonstrated. That aspect of the abandonment of world-wide fixed exchange rates in the early 1970s will continue. Exchange-rate fluctuations against the U.S. dollar, the yen, and other non-EC currencies add an element of uncertainty in corporate planning. Companies can be rendered more or less competitive by exchange-rate shifts regardless of their internal efficiency and quality of planning. Commitment to a stable employment relationship thus becomes more difficult.

Moves to deregulate industries such as transportation and communications also open up more intense competitive pressures. Pressures to privatize state-run enterprises or to avoid giving them hidden subsidies and preferences are part of the Europe 1992 changes. Finally, it has been argued that technology is pushing firms in the direction of flexible specialization, reducing the optimum scale of enterprise, and giving the advantage to firms which can adapt quickly to changes in their niches in the market place.²⁴

Changes in competition, finance, and technology are not transitional but instead are ongoing. Europe 1992 and surrounding forces may well require employee mobility out of less competitive enterprises and lead temporarily to some added unemployment. But instability and pressure for higher levels of mobility are likely to be the permanent concomitants of the new institutions.

ii. Internal Labor Mobility.

Data on comparative national mobility rates are quite limited. Table 4 compares French, German, and British data on job tenure with comparable figures from the U.S. In general, the data confirm the impression that labor mobility is lower in the European countries when compared with the U.S. Much of the U.S.-Europe discrepancy is due to the presence of a substantially higher proportion of individuals in the U.S. with relatively short spell durations on the job.²⁵

Concern about mobility in Europe in the 1980s was heightened by comparisons with U.S. economic

Table 5

**Unemployment Rates and Employment-to-Population Ratio:
Selected Years**

	1967	1977	1987
Unemployment Rate:			
France	2.1%	5.1%	10.7%
Germany	1.3	3.5	6.3
U.K.	3.3	6.4	10.3
U.S.	3.8	7.1	6.2
Employment-to Population Ratio:			
France	56.2%	54.7%	49.9%
Germany	56.3	51.6	51.5
U.K.	60.0	58.7	56.2
U.S.	57.3	57.9	61.5

Note: All figures converted to American labor force definitions.

Source: U.S. Bureau of Labor Statistics, Handbook of Labor Statistics (Washington: GPO, 1989), Table 143.

Table 6

Duration of Unemployment, 1987

**Percent Seeking Work for
Six Months or More**

All Unemployed:	
France (a)	70.0%
Germany (a)	64.2
U.K. (a)	62.8
EC-12 (a)	72.7
U.S.	14.0
Job Losers and Job Leavers:	
France	65.2%
Germany	59.1
U.K.	68.1
EC-12	67.2
U.S.	19.1

(a) Excludes individuals who are awaiting jobs already found or on layoff. These persons account for 8.5% of the unemployed in France, 1.6% in Germany, 4.0% in the U.K., and 3.6% in the EC-12.

Note: European data refer to individuals aged 14 and over. American data refer to individuals aged 16 and over.

Source: Office for Official Publications of the European Communities, Labour Force Survey - Results 1987 (Luxemburg: EC, 1989), Table 69.

Table 7

Index of Structural Adjustment

	1967-77	1977-87
France (a)	8.5	9.7
Germany (a)	7.2	6.9
U.K. (a)	7.5	10.0
U.S. (a)	-	5.0
(b)	6.8	5.8

- = not available.

(a) ILO data.

(b) U.S. data approximating ILO industrial classifications.

Note: Index calculated using the eight industrial classifications appearing in the Yearbook of Labour Statistics: agriculture, mining, manufacturing, utilities, construction, commerce, transportation, finance, and services. Employment not classified by sector was excluded. Index is equal to one half the sum of the absolute changes in the percentages of employment in each sector.

Source: International Labour Office, Yearbook of Labour Statistics, various issues; U.S. Bureau of Labor Statistics, Labor Force Statistics Derived from the Current Population Survey, 1948-87 (Washington: GPO, 1988), Table B11; Employment and Earnings, various issues.

Table 8

Foreign Workers in EC Countries' Workforces: 1989

	All Foreign Workers as Percent of Workforce	Foreign Workers from EC Countries as Percent of Workforce
France	5.6%	2.8%
Germany	6.1	1.9
U.K.	3.3	1.6
EC-12	2.3	1.0

Source: European Industrial Relations Review (August 1990), p. 12.

performance. In the 1960s, European unemployment rates - converted to U.S. definitions - were generally lower than American. (Table 5) On both sides of the Atlantic, unemployment rates shifted up in the 1970s after the oil shock and subsequent recession in the middle of that decade. Still, relative to the U.S., European performance did not look bad. By the latter part of the 1980s, however, U.S. unemployment rates were at or below levels of the three European countries. Employment-to-population ratios were falling in Europe but rising in the U.S., leading European observers to seek the American secret of job creation.²⁶ Moreover, European unemployment seemed to be characterized by long-term idleness - a kind of "waiting around" unemployment - in sharp contrast to the U.S. (Table 6)

These kinds of comparisons, although useful in explaining European perceptions of the mobility problem, are misleading in their economic implications. Unemployment has long been conceptualized as having structural elements and macro/demand elements. Thus, it is necessary to examine a) structural problem and b) macro issues before concluding that European labor-market problems are the product of inherent immobility of the workforce.

Table 7 provides an index of structural pressure experienced in the France, Germany, the U.K., and the U.S. over the period 1967-87. The index is equal to one half the sum of the absolute changes in the percentage of each country's employment in each of the nine one-digit sectors used by the International Labour Office (ILO) in its industrial classification system.²⁷ Over periods of time, the index can vary between zero (no change) and 100 (maximum change in employment patterns).

During the period 1967-77, the three European countries showed levels of structural pressure roughly at, or somewhat above, American levels. But during 1977-87, France and the U.K. showed significantly higher levels of structural adjustment than the U.S. Notably, these two countries showed the most marked departure in their unemployment rates from U.S. levels. In contrast, Germany, which made a lesser structural adjustment, experienced unemployment in the U.S. range.

Although there was much talk in the U.S. about deindustrialization during the 1980s,²⁸ American manufacturing employment stood roughly at the same absolute level in 1987 as in 1977. German manufacturing employment fell about 5% during 1977-87, a drop constituting only about 1% of total German employment at the beginning of the period. In contrast, British manufacturing employment dropped by 28% (8% of total employment). And French manufacturing employment fell by 29% (5% of total employment). It is hardly surprising that such dislocations would create greater unemployment problems in France and Britain

than in Germany or the U.S.

Macroeconomic forces are also linked to employment creation and comparative unemployment. There is evidence to suggest that countries experiencing a greater push in real wages are likely to experience slower employment growth.²⁹ This result can be interpreted as either a "classical" response (a push of wages up the aggregate labor demand curve) or as an increase in the natural rate of unemployment (greater inflation-proneness at a given unemployment rate). The latter could lead to official reluctance follow demand-expanding macroeconomic policies for anti-inflation reasons.

In the U.S., upward pressure on wages was reduced in the 1980s by declining unionization, dollar appreciation until 1985, and other factors. Real wage levels in manufacturing were essentially unchanged in the U.S. during 1977-87 despite productivity gains.³⁰ Yet in France, Germany, and the U.K., real manufacturing wages increased at annual rates of 2.4, 2.8, and 2.9%. These data suggest that at least some of the better performance in American job creation during the 1980s was achieved due to lesser structural shifts combined with a more favorable interaction of macro forces and aggregate wage-setting processes.

In short, there is some evidence of lesser mobility rates in Europe as compared with the U.S.. But it would be wrong simply to attribute all of the gap between European and American labor market performance in the 1980s to an ingrained and immutable unwillingness of Europeans to change jobs. The key point is that in the future it is likely that the one-time stability of the European employment relation will come under still greater stress, in part due to the competitive atmosphere created by Europe 1992. And a key question is whether there are barriers in current compensation practices to the greater labor mobility that will be required. In particular, do employee benefit structures interfere with mobility?

ii. International Mobility with the EC.

It may seem surprising to relate the mobility implications of Europe 1992 largely to internal mobility within the member states. However, despite the greater integration envisioned by the Europe 1992 process, the idea of cross-border mobility has always been part of the European Community, going back to the original 1957 treaty. Despite this long history, practical barriers remain, such as non-recognition of professional credentials obtained in other countries.³¹ In principle, incompatible benefit arrangements between member states could interfere with such mobility. But in fact other factors have been the chief limiting influences, especially language and cultural differences. Daily cross-border commuting is possible in certain regions but

for most workers geography is a natural barrier to international labor mobility.³²

Table 8 shows that the proportion of EC nationals working in other EC countries amounts to only about 1 percent of the total EC labor force. More than half of foreign workers employed in EC countries are from outside the EC, e.g., such places as northern Africa.³³ EC-origin foreigner workers in France are mainly from Portugal (60% in 1987), Spain (19%), and Italy (14%). In Germany, EC-origin migrants are mainly from Italy (37%), Greece (21%), and Spain (13%). And in Britain, they are mainly from Ireland (67%) and Italy (14%).³⁴

Essentially, within-EC worker/migrants come from low-wage and/or high unemployment areas. They are unlikely to be constrained by incompatibilities between domestic company-level benefit arrangements in their native countries and their countries of employment. This lack of constraint is simply because most are unlikely to have been part of such benefit arrangements in their native countries, especially if their migration was due to unemployment at home. Roughly one out of ten migrant EC-origin workers have been estimated to have any significant vested pension rights in their home countries.³⁵

For those few EC-origin migrants that have worked under pension schemes in their home country, private pension vesting rules pose no more of a barrier to international mobility than they do to internal (domestic) mobility. Vesting rules vary widely across EC countries but are not based on the national destination of a worker who changes jobs. For example, a worker under a British plan becomes vested after two years whether he/she subsequently quits and goes abroad or quits and stays in the U.K.

The problem is more severe with regard to the value of the vested benefits. As will be discussed below, some EC countries have mechanisms for transferring the value of pension entitlements from one scheme to another so that a mobile worker does not lose pension value by changing jobs. However, the formulas under which such transfer payments between plans are calculated varies from country to country. Absent the creation of EC-wide rules for such factors in the calculation as actuarial tables, cross-border fund transfers would be difficult.³⁶

With regard to public social security arrangements, the least-pressing mobility problems for intra-EC migrants arise with current benefits, such as health care.³⁷ For example, anyone employed in Germany and France, and any resident of Britain, is covered by the national health benefit program.³⁸ Other current benefits such as family allowances are similarly available to migrants.

Various agreements coordinate national social security systems for migrants, including agreements

with non-EC countries. For example, the U.S. has "totalization" agreements with Germany, France, and the U.K. And the EC countries have such agreements among themselves. Such agreements essentially avoid double taxation of pay and result in pro-rata social security benefits for beneficiaries upon retirement.³⁹

While the inter-country discrepancies between public social security systems raise complicated technical problems - especially regarding deferred pensions - it seems unlikely that greater harmonization would have much impact on the volume of intra-EC cross-border mobility. Even a doubling of intra-EC mobility would leave the internal international workforce an insignificant fraction of the overall labor force.

There is a visible, though quite small, population of Euro-executives who are transferred across national boundaries by multinational enterprises (often American-based firms). Since public social security is likely to account for a relative small proportion of the pay of highly-compensated executives, and since private executive benefit plans can be extensive (and expensive), there are special mobility-related issues for this group. A 1990 survey of European, U.S., and Japanese multinationals revealed a general expectation that Europe 1992 would mean more intra-European executive mobility. For short-term transfers, companies expected to keep their executives mainly under home-country private and social security arrangements. For longer-term transfers (and for medical coverage), there was a somewhat greater propensity to use receiving-country plans.⁴⁰

iii. The Flexibility Debate in Europe.

There has been growing concern in Europe about "inflexibility" in the labor market, particularly as compared with the U.S. Although flexibility is also taken to include the process of setting pay, it more often refers to lesser ability of European firms to lay off workers. The argument has basically been that strong protection for incumbent workers - and legal discouragement of temporaries, short-term contract workers, and similar contingent arrangements - makes European employers hesitant to hire, thus limiting employment growth.

Generally, European labor law is protective of employee job security in relation to individual discharges for misconduct or poor performance.⁴¹ In contrast, in the U.S. such cases were usually covered by the "at will" doctrine up to the 1970s. Under the at-will doctrine, employers could discharge without cause unless there was a contractual or statutory restriction. Such contracts and restrictions typically were found only in union situations or in public-sector employment. However, in recent years the coverage of the at-will

doctrine has been narrowed in the U.S. by court decisions and some state legislation.⁴²

Private-sector economic layoffs are still relatively free of constraint in the U.S., the only general limitation being a 60-day notice for mass layoffs and plant closings under federal legislation adopted in 1988. Public-sector procedures and some union contracts may limit layoff ability. European notice requirements are more extensive and may involve discussions with mandated works councils. Social plans may be required and governmental authorities may need to give permission for layoffs in some cases.⁴³ Severance pay may be required by law.⁴⁴ Apart from such legal requirements, there can also be political limitations; governments may simply frown on layoffs and workers at risk of layoff may be able to develop public support for their imperiled positions.

Still, changes in output are reflected in employment adjustments in Europe as well as the U.S. Appendix Table A1 presents regression estimates of the impact of a change in real GDP on employment adjustment during 1974-87. In France, Germany, and the U.S., estimates of the employment/GDP elasticity are in .4-.5 range, i.e., a one percent change in real GDP is associated with a change of about half that magnitude in employment. (The sharp restructuring of British industry precluded meaningful regression results for the U.K.).

For manufacturing alone, it is possible to compare hours changes as well as employment changes with output changes. (Appendix Table A2) In all four countries, hours/output elasticities are higher than employment/output elasticities indicating the presence of some insulation of workers from job loss via reduced hours per employee.⁴⁵ Estimates for U.S. manufacturing were comparable to those of the other countries regarding hours, and higher regarding employment.⁴⁶

When taken together with the job tenure data presented earlier, these data do confirm a tendency for somewhat looser employment attachments in the U.S. than in the European countries. Legal and political constraints undoubtedly play a role in explaining the quantitative differences. In qualitative terms, however, there are similarities. Neither the U.S. nor Europe has auction-style labor markets. Long-term attachments are not unusual on both sides of the Atlantic, especially for older males.

iv. Contingent Workers.

Although constraints on employer discretion are less binding in the U.S., in both Europe and the U.S. employers now seem to be looking for labor-market arrangements which involve less security and

commitment. During the 1980s, there was increasing interest in "contingent" workforce arrangements - part-timers, temporaries, use of self-employed contractors, subcontracting work to small firms, homework, and the placing of workers under fixed-term (rather than open-ended) contracts.⁴⁷ Such arrangements have occasioned disquiet both in the U.S. and Europe.

Neither American nor European labor-market statistics are collected in ways which facilitate clear-cut estimates of the size of the contingent workforce.⁴⁸ In national labor-force surveys, for example, employees are not asked directly about how secure their current job is. U.S. data indicate marked growth in employment through temporary help agencies in the 1980s. Most temporaries, however, are probably hired directly by employers; they do not appear on the payrolls of agencies. It is noteworthy that American temporary help agency employment dropped in 1989, as the U.S. labor market showed early signs of softening prior to the 1990 recession. Temps were dropped first; overall employment showed no decline until mid 1990 when a definite economic slowdown became apparent.

Part-time work and self employment is more clearly identified in labor-force surveys. Table 9 shows that about 1 out of 8 EC workers are part-timers, although in Britain the figure is over one fifth. Part-time work figures for the U.S. are somewhat below the British level. However, in the U.S. part-time employment shows only a slight upward creep, apart from cyclical movements of the involuntary part-time workforce.⁴⁹

In both Britain and France, the use of part-timers was a major area of employment growth in the 1980s.⁵⁰ Self-employed workers represented almost 1 in 6 EC employees, although about a fourth are in agriculture. The proportion in the U.S. was lower, about 1 out of 11 workers (with about 14% in agriculture) in the late 1980s.⁵¹

Growth in contingent employment reflects the increase of uncertainty in the product market cited earlier and is part of a general shift toward reduced employer commitment to workers. As such, data on the number of part-timers and the like merely reflect a part of a larger change in the employment relationship. More telling are such developments as the general decline in private-sector unionization⁵² and the relative growth of small businesses.⁵³

Undoubtedly, use of contingent workers also represents a way of avoiding legal requirements which apply to "regular" employees. Europeans have been less accepting of the growth of a contingent workforce as legitimate, labeling such employment with words such as "precarious" and "atypical".⁵⁴ The European Parliament has even declared that contingent work "threatens the economic and social cohesion of the

Table 9

Workforce Composition of EC Countries, 1987

	Germany	France	U.K.	EC-12
Number in thousands				
Total Employment	26562	21396	24816	125913
Part Time	3384	2504	5446	16407
Employers & self employed	2421	2709	3098	19999
agriculture	463	1591	583	5187
Employed but seeking work because job is transitional	84	343	125	1027
Percentages:				
Total Employment	100.0%	100.0%	100.0%	100.0%
Part Time	12.7	11.7	21.9	13.0
Employers & self employed	9.1	12.7	12.5	15.9
agriculture	1.7	7.4	2.3	4.1
Employed but seeking work because job is transitional	.3	1.6	.5	.8

Source: Office for Publications of the European Communities, Labour Force Survey - Results 1987 (Luxemburg: EC, 1989), pp. 68-69, 122-123, 126-127, 234-235.

Community".⁵⁵

Generally, part-timers are covered by the same labor regulations as other workers, but there may be cutoffs regarding hours that must be worked before certain standards apply. The growth in contingent work has created interest in enlarging existing legal protections.⁵⁶ Not surprisingly this tendency has been resisted in Britain.⁵⁷

It has also been pointed out that the growth of contingent employment is not entirely voluntary. In the U.S., for example, non-voluntary part-time employment moves cyclically with unemployment.⁵⁸ And the big growth in the use of temporary help agency employees began after the 1982 recession, when labor markets were soft and employers were reluctant to make new employment commitments. Nonetheless contingent employment cannot be correctly viewed as just disguised unemployment.

In the U.S., for example, about three fourths of nonfarm part-timers reported to be voluntarily working less than 35 hours per week in the late 1980s.⁵⁹ Most employees who reported doing homework in the U.S. were not the stereotypical female apparel worker taking piece work home; over half were in the managerial/professional category and more than half were men.⁶⁰ Not surprisingly, both European and American laws on homework deal with the older stereotype and were enacted long before the development of electronic "telecommuting."⁶¹

The pressures that increased contingent working in the 1980s will continue to be felt in the 1990s. These pressures tend to weaken the strength of the employment relationship and make the employee more vulnerable to employer discretion. Whether that is a Bad Thing depends on what alternatives are available, i.e., the tightness of the labor market, and the degree to which social benefits such as pensions and health insurance are tied to a particular job. As will be indicated below, European employee benefit arrangements are, paradoxically, more consistent with an unstructured labor market than are corresponding American institutions.

III. Other Employee Benefit Issues.

Two other aspects of benefits are important to note, because they have an influence on public policy. First, there is the cost side of benefits and their influence on product-market competitiveness. Second, there is the question of saving, growth, and productivity. It might be argued that certain benefit arrangements could in turn encourage increased saving and therefore investment. Such investment could stimulate growth and -

through capital deepening - raise productivity. These two issues are considered below.

i. Employee Benefits as Employer Costs.

European employers, as do employers everywhere, think about benefits - whether publicly or privately provided - in terms different than economists. There is a longstanding tendency by employers to view benefits simply as add-ons to labor cost.⁶² The possibility that benefits influence the mix of labor costs, rather than the level, is usually not considered. When seen simply as add-on costs, benefit increases are threats to enterprise competitiveness. Taken further from the add-on perspective, countries which have high ratios of benefits to wages will be uncompetitive. It then follows that countries which reduce benefits will become more competitive and will thereby expand employment.

Unfortunately, the tendency to view benefits as add-ons, rather than a way of cutting up the compensation pie, distorts public policy. It is true that if a given firm could reduce its benefit costs relative to others in the labor market, it would obtain a competitive advantage. However, an across-the-board assessment (tax, contribution, or premium) for benefits does not change the relative competitive position of firms within the labor market. And, as far as costs relative to other countries' labor markets, the possibility that labor absorbs the cost of benefits must be considered.⁶³ The more inelastic the supply of labor, the more likely it is that the costs of benefits are shifted to employees, regardless of the legal aspect of who is responsible for paying for the benefits.

In the very short run, of course, a jump in benefit costs will probably raise total compensation. For example, in the U.S., compensation indexes typically show an upward blip in those quarters in which Social Security taxes are increased. However, there is also evidence in the U.S. that the long-run incidence of such payroll taxes and similar mandated costs falls, at least partially, on labor.⁶⁴ And the same is likely to be true in Europe.

Appendix Table A3 shows the results of regressions explaining the level of pay per employee by GDP/employee and other variables, both within the 12 EC countries and across a broader sample of 22 nations in 1987. As it turns out, the regressions more accurately predict total compensation per employee rather than direct wages per employee, suggesting that the level of benefits primarily influences the mix of pay and not the level. Moreover, when put directly into the regressions, the ratio of direct to total compensation is either insignificant and/or enters with the wrong sign.⁶⁵

Of course, the existence of extensive benefit programs could influence employment and competitiveness through supply-side channels. For example, generous retirement benefits might lead older workers to withdraw from the workforce.⁶⁶ In principle, however, benefit formulas and eligibility rules can be modified to avoid "excessive" non-participation in the labor force (as has occurred in the U.S. and Germany, for example). Benefit programs could create administrative costs, the more they are located at the firm level and are not simply financed by assessments payable to national funds. But that concern suggests that the balance between national administrative options and company-by-company administration should be reassessed.

In general, the degree to which countries want to divert pay to social insurance (public or private) is largely a matter of politics and taste. If a country decides to channel resources toward social benefits, one way or another its workers consumers will have less discretionary income. Benefits financed through payroll taxes and/or employer contributions will leave smaller amounts of take-home pay. Benefits financed through general taxation will reduce after-tax income. But the fact that there is no free lunch does not imply that the lunch is paid for entirely through lost labor-cost competitiveness.

ii. Employee Benefits, Growth, and Productivity.

The saving/growth issue comes up mainly with regard to pension arrangements. Health insurance typically involves current transfers to individuals with health problems, financed by healthy individuals. But pensions can be funded in advance, and thus represent a potential form of saving.

Often the issue is put in reverse terms, at least for public or quasi-public programs. If a national pension system is based on pay-as-you-go financing (as in France), it might be argued that covered individuals will save less than they otherwise would because of the pension wealth represented by the deferred promise of retirement income. Considerable debate has occurred on the impact of the U.S. Social Security system on American savings, especially during the period before the mid 1980s when that system was not pre-funding for the eventual retirement of the baby boom. The effect of pay-as-you-go systems on saving behavior is not obvious. For example, if retirement would otherwise be financed through private intergenerational transfers (say, old people being taken care of by their children), then creation of a substitute formal system need not have any effect on saving.

In fact, it has been difficult to establish any link in the U.S. case between Social Security wealth and

saving behavior.⁶⁷ At the level of pure theory, it might also be argued that any government liabilities are offset by private saving behavior, as members of the public anticipate future taxes on themselves or descendants.⁶⁸ The degree of intergenerational foresight required, however, makes such theorizing suspect. Social security has materially improved the living standard of the elderly in the U.S. If there is an add-on effect, it seem to be to retirement income rather than to labor cost.

At this point, therefore, a modest and pragmatic assessment is best; it is unclear that public retirement programs substitute for private saving. On the other hand, increased saving in public or quasi-public systems - that is, moves from pay-as-you-go to pre-funded retirement - will probably increase national saving and are certainly unlikely to reduce it. Substituting private enterprise-level or individual-level saving schemes for public pay-as-you-go programs will also probably increase total saving. That is because enterprise-level schemes are unlikely to be purely pay-as-you-go (and can be required to pre-fund). Individual schemes are also inherently pre-funded, at least on an actuarial basis.⁶⁹

Even if saving is increased, it is not clear that investment will rise in a tight relationship. As the U.S. experience indicated in the 1980s, investment can be attracted from world capital markets when domestic saving is inadequate. With growing integration of financial markets inside the EC, this possibility is quite real. Nonetheless, as Table 10 indicates, there is a loose relationship between national saving and national investment rates, even within the EC.

Of course, a second link must also occur between growth and investment before a shift in pension arrangements can be justified on growth grounds. Table 10 indicates that countries with high saving rates did have somewhat faster growth rates in real GDP. But they also had somewhat higher growth in employment so that there is no positive association between high saving rates and productivity growth.⁷⁰ Productivity is the key variable to consider since to raise living standards, productivity must rise. In short, it is hard to be against more saving, but it is also hard to make definite links between that saving and economic performance. Certainly, a large short-term improvement in productivity cannot be expected from a marginal increase in pension savings.

iii. Portfolio Composition.

Somewhat related to the proposition that privatized pension arrangements will stimulate investment is the idea that private pension schemes will invest in different financial instruments than will public schemes.

Table 10

Saving, Investment, and Growth Rates

			Annual Percent Change		
	Gross Saving Rate, 1980-87 (1)	Gross Invest- ment Rate, 1980-87 (2)	Real GDP, 1979-87 (3)	Employ- ment 1979-87 (4)	Real GDP /Employ- ment, 1979-87 (3)-(4) (5)
22 Countries					
Top 11 Savers	27.5%	24.0%	2.4%	.9%	1.5%
Bottom 11 Savers	17.8	19.9	2.1	.5	1.5
12 EC Countries					
Top 6 Savers	27.8%	22.4%	2.0%	.5%	1.5%
Bottom 6 Savers	17.1	19.2	1.7	.1	1.6%

Note: Countries include the EC-12 plus Austria, Finland, Norway, Sweden, Switzerland, U.S., Japan, Canada, Australia, New Zealand.

Source: Organisation for Economic Co-operation and Development, Historical Statistics, 1960-1987 (Paris: OECD, 1989), pp. 44, 65, 70; Organisation for Economic Co-operation and Development, Labour Force Statistics, 1967-1987 (Paris: OECD, 1989), p. 25.

Private schemes might be more likely to hold private securities in their portfolios as opposed to Treasury bonds. For example, in the mid 1980s, over a third of American private pension assets were held in stocks, as were about two thirds of the assets of British plans.⁷¹ In the case of many German pension funds, the assets are effectively invested in the employer itself.⁷² Thus, the argument runs, private arrangements will make more funds available for private investment, even if the overall saving rate is not changed.

But there are problems with this approach. Financial markets are typically fluid. If public pension schemes lean toward public debt instruments for their portfolios, there will be fewer such instruments in the capital market that have to be absorbed by the private investors, and hence more private funds available for private investment. Who saves in what asset is not critical.⁷³

Clearly, public pension schemes could be used to favor public borrowers - perhaps lending at lower-than-market rates of interest. But a similar problem can also occur under certain private saving schemes. For example, if pensions are invested in the employer, there could be a hidden subsidy to the pension-providing employer (relative to other potential borrowers). The tenacity with which German employers defend the book-reserve system of pension finance (see discussion below) raises suspicions that such private subsidies do occur.

iv. The Proper Criteria for Evaluation.

It is important to recall, in evaluating proposals for creating of new instruments for retirement saving, that there is a significant interest group anxious to sell such instruments. Financial services firms, as noted earlier, have obvious interests in seeking out new markets in Europe 1992. Arguments that new pension instruments will stimulate saving and investment are particularly suspect if the new instruments simply substitute for pre-funded public or quasi-public arrangements. They are also suspect if the claim is largely that the scheme will channel existing saving in new directions. Broad financial markets should channel funds to the highest risk-adjusted return in any case. Employee benefit programs should not be seen primarily as investment channelers.

In short, the issue of benefit adequacy or generosity is primarily a matter of political and social evaluation. Beyond this set of issues, it is best to look at employee benefit plans primarily in terms of their labor-market effects. The possible impacts on saving, investment, and growth are much less certain. Within the labor market, the impact on labor mobility is the most obvious concern. Some kinds of private benefits are

more compatible with mobility than others. And the mobility issue is closely tied to the nature of the employment relationship.

IV. Benefits and the Employment Relationship.

National benefit systems can have public and private components. However, the mix varies substantially across countries. In most cases where private benefits are extensive, there is nevertheless a significant basic public program.

i. Public Social Insurance.

Initiation of modern state-run social insurance arrangements for pensions is usually attributed to Bismarck's Germany of the 1880s. From there, the idea spread to other European countries and eventually to the U.S. in the 1930s. National medical insurance is provided in all EC countries but in the U.S. applies only to retirees and employees age 65 and older.⁷⁴ State subsidies to social insurance funds are common in the EC, along with payroll tax financing. In most cases, retirement benefits are earnings-related, although some minimum benefits amounts may apply. Two countries, Denmark and Britain, have explicit flat-rate and earnings-related pension programs. (Table 11)

ii. Private Plans.

Private pension and insurance arrangements existed on a limited scale before World War II in both Europe and the U.S.⁷⁵ In Europe, these became known as "occupational" plans, although the term applies to both enterprise- and occupationally-based schemes. However, coverage was often limited to special groups. In the postwar period, some countries followed policies which encouraged the expansion of such schemes through tax incentives. Enterprise-based pensions currently exist on a significant scale, for example, in Germany, Britain, and the U.S., and are typically earnings-related. Under the French system, national funds which are technically private have basically supplanted enterprise-based pensions for most workers.

Widespread national health insurance arrangements have drastically limited the scope for enterprise-based medical insurance in Europe. But in the U.S., most full-time workers at medium-to-large firms are covered by employer-based health insurance.⁷⁶ And about two thirds of all American wage and salary workers had employment-related health insurance in the mid 1980s.⁷⁷

Table 11

Summary of Public Social Insurance Provisions

	Date of First Law	Pension	Medical for Active Employees	Financing
Belgium	1924	E	X	ER, G
Denmark	1892	F, E	X	ER, P
France (a)	1910	E	X	ER, EE, G
Germany	1883	E	X	ER, EE, G
Greece	1914	E	X	ER, EE, G
Ireland	1908	F	X	ER, EE, G
Italy	1919	E	X	ER, EE, G
Luxemburg	1911	E	X	ER, EE, G
Netherlands	1913	F	X	ER, EE, G
Portugal	1935	E	X	ER, EE, G
Spain	1919	E	X	ER, EE, G
U.K.	1908	F, E	X	ER, EE, G
U.S.	1935	E	(b)	ER, EE (c)

E = Earnings-related pension; F = Flat-rate pension; X = Provides medical coverage; ER = Employer tax; EE = Employee tax; P = Personal tax; G = Government subsidy.

(a) Excludes national ARRCO and AGIRC systems.

(b) Employees and retirees aged 65 and over.

(c) Government contributes to certain specialized programs.

Source: U.S. Department of Health and Human Services, Social Security Administration, Social Security Programs Throughout the World - 1989 (Washington: HHS, 1988).

Generally, there are bound to be substitution effects between public social insurance and private employee benefits. A country is unlikely to pursue the ambitious expansion of both types of benefits simultaneously. Once there is a substantial private benefit system, it is unlikely to be supplanted by a public system.⁷⁸ Sometimes, however, public policy may seek to build around existing private arrangements. Examples include the State Earnings Related Pension Scheme (SERPS) in Britain - which filled in where private employers did not already provide pensions - and recent American proposals to mandate private health insurance upon employers not currently providing it.

iii. Tax Treatment of Private Benefits.

Whether employers will provide significant pensions or health insurance to employees depends partly on the generosity of required public or national schemes and partly on the tax treatment afforded enterprise-based benefits. Where generosity is high, e.g., the Italian compulsory system or the French national plans, private enterprise-administered pension incidence is likely to be low. Most countries allow deductions from corporate income taxes for benefit expenditures. The crucial tax variable is whether employees are subject to tax on the value of the benefit contribution. As Table 12 indicates, tax treatment is unfavorable to enterprise-administered pensions in some EC members states such as France, but most countries allow the employer's pension contribution to escape immediate taxation. On the other hand, most EC countries tax private health plans, thus discouraging such programs in favor of the official schemes.

iv. Assumptions About the Employment Relationship.

Various motives might explain the degree to which countries encourage private employer-provided benefit arrangements. Countries may encourage such benefits because they want to promote social harmony by making employees "grateful" to employers for the benefits they receive. Certainly, early paternalistic employers which provided benefits had such a motivation regarding labor-management accord within their own businesses. Of course, the benefit strategy of promoting harmony may not always be successful from the employer perspective. Nonetheless, in the U.S. firms which wish to be seen by their employees as "good" employers usually have generous benefit programs.⁷⁹ If it is national policy to help employers be perceived as beneficent, then company-by-company programs of social insurance are a logical tool.

A second motivation for encouraging a link between social insurance and work is to provide added

Table 12

**Tax Status of Private Pension and Health Insurance
Contributions of Employers**

Country	Pensions	Health Insurance
Belgium	(1)	T
Denmark	0	T
France	T	T
Germany	(2)	(2)
Greece	0	0
Ireland	0	(3)
Italy	0	0
Luxemburg	T	T
Netherlands	0	T
Portugal	0	T
Spain	T	T
U.K.	0	T
U.S.	0	0

T = taxable; 0 = not taxable.

(1) Contribution is part of taxable income but employee receives a tax deduction for the same amount.

(2) Tax free up to specified limit.

(3) Contribution is part of taxable income but employee receives tax relief on payment.

Source: Organisation for Economic Co-Operation and Development, The Taxation of Fringe Benefits (Paris: OECD, 1988), Table A.

incentive for workforce participation. If the insurance is available only through workforce attachment, presumably more individuals will be drawn into the labor force. Note, however, that there is no need in this case for the social insurance to be provided at the firm level; it could just as well be offered through a national social security system in which eligibility for benefits was tied to work experience.

A third motivation for encouraging employer-provided employee benefits is ideological. If the alternative is viewed as state-run social insurance, and if there is a philosophical aversion to having individuals dependent on the government, then employer-operated plans may be preferred. In this case, however, the middle ground of quasi-private national funds is available.

For countries which make heavy use of company-by-company benefits, all of these motivations seem to have played a part in the formulation of their systems. It is (or was) seen as a Good Thing to have employers behave paternally. Work is to be encouraged. And socialistic, welfare-state programs are seen as undesirable. In the developed world, the U.S. - with its *laissez-faire* history - is the epitome of this approach to social insurance. But elements of it can also be seen in the U.K. and Germany.

The difficulty with this vision is that its implementation can end up tying employees to particular enterprises. Unless concrete steps are undertaken to make benefits truly portable, employees who become enmeshed in the benefit plans of a particular firm will be reluctant to leave. Of course, the mobility issue did not arise in an era when lifetime careers with an employer were assumed to be the norm. Whether consciously or not, the promotion of a decentralized benefit system without substantial benefit portability is tied to an older view of the employment relationship, one in which the employee is dependent on the employer and the employer rewards loyalty and dependence with particular insurance and retirement programs.

V. Pension Issues.

Public policy makers in the EC (and in other parts of the world) have been made more conscious of pensions by demographic projections of the now-aging baby boom. With government-run social security schemes - often termed the "first pillar" of retirement support (and often operating on a pay-as-you-go basis) - significant tax increases will be necessary as the elderly population rises relative to the active workforce. Thus, attention naturally turns to the second and third pillars - private pensions and private individual saving programs - as a "solution" to the future problems of supporting retirees. The more intense focus on the

second and third pillars also results from the shift toward "privatization" in other spheres of economic policy and a concern about running still more programs through the official government budget.⁸⁰

The attractions of the second and third pillars are partially illusory. Private saving and pensions are likely to involve anticipatory funding for retirement, not pay-as-you-go. Shifting from pay-as-you-go to prefunding will be equally painful, whether is it done by converting public systems to prefunding or by substituting prefunded private arrangements for pay-as-you-go public systems. Either way, the current workforce will make a "double contribution" to support existing retirees and to prefund their own retirement.⁸¹

Moreover, private pensions and officially-encouraged individual savings plans (sometimes called "personal pensions" in Europe) often entail a heavy element of government involvement through tax incentives and regulations. These plans themselves may escape being recorded in the government budget, but their tax consequences are obviously reflected there. And the degree to which they can be viewed as merely the result of free-market incentives is questionable, given the background of government involvement in the plans, design, implementation, and operation. The tendency has been for such government involvement in the second and third pillars to increase in many countries, including the U.S., the U.K., and Germany.⁸²

i. The Importance of Private Pensions.

Because of the growing interest in pensions, it might be thought that data on the magnitude of retirement incomes they provide would be easily available. Unfortunately, this is not so. Social Security payments can be readily calculated, given assumptions about work history. But because private pension formulas vary, such simulations are much more difficult.

Data are available for the U.S., the U.K., and Germany on the proportion of income reported by retirees for their household at the beginning of the 1980s. For those aged 65-74, the proportions, respectively were 20%, 22%, and 14%. By way of contrast, the proportions for Social Security were 50%, 61%, and 82%, with the balance of income coming from investment and property income, work, means-tested benefits, and other sources.⁸³ In short, at that time, German pensions were less significant as a source of retirement income (and German social security was more significant) than in the U.S. or U.K. Although data for France are not available, the relative absence of company-by-company pensions in that country would have revealed much greater reliance on public and national funds than was found in the other three countries.

Some data on retirement incomes for more recent periods are available from private sources. Table 13 shows the estimates made by Towers Perrin, a compensation consulting firm, for three types of workers as of 1989.⁸⁴ Because the table assumes a career worker in a firm with a private pension plan, the proportion of income coming from the pension will necessarily be higher than an average taken across the entire population of retirees. Many retirees will not have had the service with a single firm assumed on Table 13.

Again, even among those German workers best situated to receive significant private pension income, the amounts from that source are substantially less than could be expected in the U.S. or the U.K. (And German social security benefits are larger than in the U.S. and U.K.) The typical career French worker would not have a company-level pension at all. In all four countries, the public plan tends to tilt benefits its benefits toward the lower paid. But private pensions tend partially to offset this effect.

ii. Mobility Aspects.

Enterprise-level pensions come in two basic designs: defined-benefit and defined-contribution. In the latter, money is put aside for workers based on some formula (say, a percentage of pay). The worker in effect has a tax-favored savings account through the employer which earns interest and is available upon retirement as a lump sum or an annuity. What the value of that account will be and how much of a monthly pension it will buy at retirement, are not specified in advance. These amounts depend on the returns to the account assets while the worker is employed and interest rates and actuarial considerations at the time of retirement. Thus, the risk of adequate pension provision is borne by the employee, not the employer.

Personal pension plans, such as American Individual Retirement Accounts (IRAs) have much the same feature as defined-contribution plans. The worker is enabled to save through a financial services firm (such as a bank) out of pre-tax income. Upon retirement, there will be a balance in the account which can be used for income support purposes. How much there will be in the account and what sort of annuity it will buy is unknown in advance.

In contrast, a defined-benefit plan specifies a monthly retirement benefit whose amount is fixed independently of the return on assets, interest rates, and actuarial factors. Typically, a formula based on past earnings, age, and service determines the monthly pension. The employer bears the risk entailed in coming up with the resources needed to fund the promised pension.

A major advantage of defined-contribution plans is that they can easily be made portable. The

Table 13

**Typical Retirement Incomes as Percent of Final Earnings
for Males Retiring in 1989 with Full Career
at Medium-Sized Industrial Firm**

	Private Company Pension	Social Security and National Funds	Other	Total Retire- ment Income as Percent of Final Earnings
Factory Worker				
France	--	70%	2%	72%
Germany	15	50	-	65
U.K.	39	40	-	79
U.S.	42	40	-	82
White- Collar Worker				
France	--	70%	2%	72%
Germany	15	45	-	60
U.K.	50	35	-	85
U.S.	53	25	-	78
Middle Manager				
France	--	58%	2%	60%
Germany	25	30	-	55
U.K.	50	25	-	75
U.S.	63	12	-	75

Note: Lump-sum and saving plan distributions are converted into equivalent annual income. Figures based on estimates from graphic presentations.

Source: Towers Perrin, Retirement Income Throughout the World (New York: 1990).

employee can simply be allowed to roll over the amount in his/her account into another plan upon changing jobs. Even if the plan is not portable in the sense that it is left in the old plan at the former employer, the employee can still retain full rights to the account. In that sense, it is no barrier to mobility. Effectively then, an enterprise-level defined-contribution pension can easily be made 100% portable (or the equivalent) because there is no risk-shifting to the employer. And a personal pension is inherently portable since the worker controls it from the beginning.

Defined-benefit plans do not shift all risk to the employer, but they do shift some. Absent a government guarantee, an inadequately-funded plan might be unable to pay all of its promised benefits. And, unless the plan is indexed, retirees may face an inflation risk due to the specification of benefits in nominal terms. (This inflation risk, however, is also present in non-indexed annuities purchased through defined-contribution plans and personal pensions). Still, a defined-benefit plan does place a risk on the employer; the precise cost of the promised benefit cannot be known in advance. Inadvertent inadequate funding can create unforeseen pension costs in the future for which the employer may be liable.

It is the uncertainty surrounding the eventual liability that creates a problem for portability of enterprise-level defined-benefit pensions. Under a defined-benefit pension portability system, if an employee moves from one plan to another, the receiving plan is accepting the uncertain liability incurred by the sending plan. A financial transfer between the plans must be made to offset the liability, but in a decentralized pension system the prefunding assumptions may differ from plan to plan. In order to have financial transfers, common assumptions must be imposed on all plans, in effect converting them into a de facto national system. (Or the sender must agree to accept whatever assumptions are operative at the receiver - an unlikely development). The problem is compounded if the sending and receiving plans do not have identical benefit formulas.

Small homogeneous countries - such as the Netherlands - which have relatively few players to coordinate are more likely to be able to develop acceptable common transfer assumptions than large, diverse countries. Thus, it is not surprising that the Netherlands has made significant steps in harmonizing its enterprise-level pensions to allow transfers. The Netherlands was also aided in this effort by the existence of industry-wide pension schemes which already permitted mobility between member firms.⁸⁵ Developing common transfer assumptions within large, diverse countries would clearly be more complicated.

While the imposition of common assumptions raises technical issues, the most important barriers to providing for portability of enterprise-level defined-benefit plans are cost and behavior consequences.

Defined-benefit plans tend to subsidize the benefits of immobile workers with the contributions made for mobile workers who lose eventually lose their benefit entitlements. There are two components of this loss: non-vested service and the post-vesting upward tilt of pension accrual with service.

Vesting is simply a period of minimum service before a pension entitlement begins. In the U.S., for example, the typical vesting period is five years. Individuals who quit or are terminated before the vesting period ends have no benefit rights; any contributions made on their behalf can be used for meeting other liabilities of the plan, i.e., liabilities to those who do have vested rights. It is technically an easy matter to lower vesting requirements or even have instant vesting. But such steps mean that more workers will have entitlements and the internal subsidy to long-service workers will be decreased. Nonetheless, vesting rules influence mobility; there is evidence in the U.S. case that workers wait until vesting to exit.⁸⁶

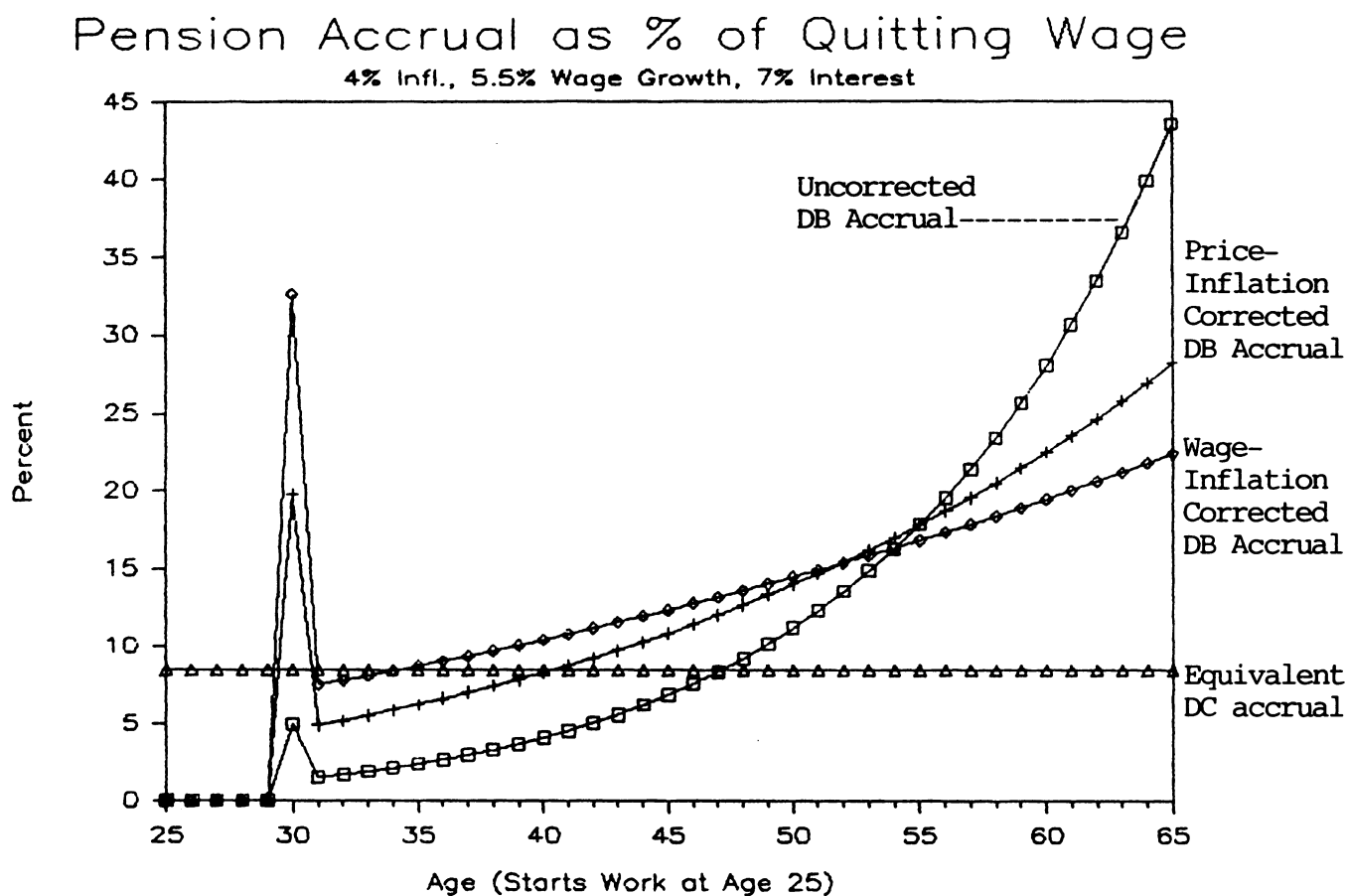
Wage inflation also cuts benefit costs since vested benefit entitlements are commonly based on final earnings or earnings history up to the date of departure from the plan. Thus, a worker who departs at age 50 and who would have normal retirement at age 65 loses the wage-inflation effect of 15 years of nominal wage increases between ages 50 and 65. Even at relatively modest rates of wage inflation, a substantial erosion in pension value will occur.⁸⁷

The erosion caused by wage inflation can be decomposed into two elements. Some wage inflation can be viewed as simply a reflection of general price inflation. And some wage inflation is due to individual real wage growth which could be positive or negative. Note that because of promotions and merit increases, individuals may experience faster rates of real wage advance than is exhibited by the average wage in the firm or economy.

Some options for correcting for wage inflation are depicted on Figure 1. Figure 1 shows the annual accrual for an individual who spends a lifetime career with a firm from ages 25 to 65 under the assumptions of 4% price inflation, 5.5% nominal wage inflation, 7% interest rates (for discounting), and a 5-year vesting rule. After retiring at age 65, the individual is assumed to live for 10 years. The plan formula is assumed to provide 1.5% of final earnings (defined as an average of the last 3 years of service) for each year of service. Thus, after a 40-year career, the individual would have a pension of 60% of final earnings.

Without any correction for wage inflation, pension accrual (the amount of discounted present pension value obtained by staying one additional year) shows a spike at vesting (30 years of age) and a sharp upward acceleration as the individual approaches retirement age. With an adjustment offsetting (correcting) just the

Figure 1



Note: See text for method of calculation.

price-inflation effect, the curve shows a bigger spike at vesting but a more gradual upward slope. (Such a correction adjusts for the loss of purchasing power resulting from early departure but not for the loss of the effects of real wage growth). A correction for all wage erosion (the price and real wage effects combined) enlarges the vesting spike, but further flattens the curve.

As the curve is flattened, the anti-mobility effect is reduced at the higher age brackets. But the enlarging of the vesting spike reduces mobility incentives in pre-vesting years. Moreover, the curve cannot be completely flattened due to the impact of discounting on the present value of the pension. Even a pension entirely corrected for the price and wage effects will still be worth more in later years when the worker is close to receiving it than it is in earlier years.

To remove the anti-mobility effect entirely, it is necessary to have immediate vesting and to give the employee an entitlement to an equivalent to a defined-contribution which would produce the same 60% pension after 40 years of service. Such a completely flattened equivalent is also shown on Figure 1. Effectively, this approach is what prefunded social security pension systems do. Actuaries calculate the eventual liability of the system based on labor-market (not individual firm) service and assess employers (or employers and employees) annually an appropriate percentage of the wage bill.

Of course, the removal of the mobility barrier - while it may be seen as desirable from a social point of view - might not be so viewed from the employer perspective. Pension formulas may have been deliberately designed to retard outward labor mobility. It has been argued, for example, that German employers found the mobility-retarding effect of pensions to be desirable during the tight labor markets of the 1960s.⁸⁸ Employers may thus be reluctant, even apart from cost considerations, to see their pension-promise formulas changed.

Despite this reluctance, there has been pressure from government in some countries to reduce the mobility barriers of defined-benefit pensions by requiring early vesting and/or transferability between plans. (Table 14). Protection can also be provided by law against the adverse pre-retirement inflation effect which affects those who depart before retirement age. There are several reasons why governments might feel the need to impose such mandates.

First, the advantage to the employer of employee retention as seen at the micro level is less impressive at the macro level at which the government must operate. Every employee who is discouraged from quitting a job at his/her current employer is one more worker who is difficult to recruit by some other employer.

Table 14

**Policies and Practices Relating to Enterprise-Based
Pension Plans as of 1991**

	Legally- Mandated Vesting?	Common Vesting Period	Transferability Rules
Belgium	no	5	under consideration
Denmark	5	5	yes
Germany	10	10	no
Greece	no	10*	no
Spain	immediate	immediate	yes
France	n.a.	n.a.	n.a.
Ireland	5	5	yes
Italy	no	?	under consideration
Luxemburg	no	5-10	no
Netherlands	1	1	govt. encouragement
Portugal	no	unvested	no
U.K.	2	2	yes
U.S.	5**	5	no

Note: Figures in years.

*Only a few multinational firms have plans.

**Limited alternatives allowed.

Source: Heinz-Dietrich Steinmeyer, "Expert Group on Supplementary Pension Schemes Report on Vesting," unpublished paper for EC Directorate-General V (1990?); R Watson & Sons, "A Paper for Directorate-General V of the Commission of the European Communities," unpublished paper for EC Directorate-General V, 1990. (Both papers kindly supplied by Rolf Jacob).

What employers gain at one end of the hiring equation is lost at the other. Second, there is an obvious question of whether the tax subsidies that go into defined-benefit pensions should be channeled into discouraging or penalizing labor mobility. Employers who want to discourage quits can always do so without tax subsidy by paying higher-than-average wages.

Third, even from the viewpoint of the employer, economic circumstances change. The tight labor markets of the 1960s gave way to the softer markets of the 1970s and 1980s, reducing the labor-retention problem. Indeed, when job retrenchments occur and involuntary separations are required, mobility-inhibiting pension plans make the dislocation more painful. The more painful the dislocation, the greater the problem is for government.

Just how much of a mobility-inhibiting effect results from defined-benefit pensions? Unfortunately, there has been little European research on this issue. In the American case, however, there is a long history of concern about the pension-mobility connection. Thus, Clark Kerr expressed the fear in the early 1950s that the new post-World War II pensions being negotiated by unions would discourage labor mobility.⁸⁹ However, a classic article by Arthur Ross in the late 1950s was more skeptical of the proposition that pensions were responsible for the notable post-World War II drop in U.S. industrial quit rates. Firms with pension plans had lower employee turnover, but Ross noted that other factors - such as size of firm - could have been the explanation.⁹⁰

Generally, the American studies undertaken in the 1950s and 1960s on the pension-mobility question produced mixed results.⁹¹ Since pension plans were relatively new for most American workers when these studies were undertaken, this ambiguity is not surprising. But the ambiguous results may have contributed to the death of proposals in the U.S. during the 1960s and 1970s for systems of pension portability.⁹²

Unfortunately, there is still ambiguity in the literature, despite a longer history of pension coverage, better data, and more advanced methodology. It remains clear that mobility out of pension-covered jobs is lower than from non-pension jobs. But total compensation - including the pension - is much higher in the former, which could account for the mobility effect.⁹³ The fact that many workers are unaware of the details of their pension programs further clouds the issue.⁹⁴ If workers do not understand that mobility is adverse to their eventual pension income, the mobility-retarding effect will not operate.

However, the independent effect of pensions on voluntary employee mobility - while an interesting question - is not central to the debate over whether it is desirable to encourage pension systems which

penalize mobility. First, not all mobility is voluntary. There are inevitable hardships when individuals are forced to change jobs. Mobility penalties which are built into pension plans clearly exacerbate this hardship whether or not employees anticipate the hardship.

Second, pensions which lose substantial value due to job changing create complications for public policy on retirement-income adequacy. If structural changes in the economy create pressures for more mobility, both voluntary and involuntary, and if pensions lose their value in the face of this added mobility, then retirees will eventually have smaller pension incomes. They will thus be more dependent on public social security arrangements and other non-pension resources. Governments must then either make the public systems more generous or simply accept reduced incomes among the elderly.

iii. Pensions and Retirement.

While labor mobility generally is taken to mean movement from job to job, there can also be pension-related incentives to drop out of the labor force entirely. The American literature finds that private defined-benefit plans often provide strong incentive for workers to retire in their 50s or 60s.⁹⁵ Public social security schemes, of course, can also have such incentives. Having myriad enterprise-level plans, however, may provide retirement incentives which do not accord with public policy.

Incentives to encourage later retirement in public schemes, say, to minimize the resource drain of these schemes as the baby boom approaches retirement, could be offset by early retirement incentives in private pensions. It might be noted that defined-contribution plans and personal pensions do not have the same effect, since they do not have benefit formulas based on age and seniority. If a worker with a defined-contribution plan or a personal pension chooses to delay his/her retirement, the annuity payment when retirement occurs will simply be enhanced actuarially by an appropriate amount.

iv. Pension Protection.

In a system of enterprise-based defined-benefit pensions, there are two options for eventual payment of the retirement liability. The firm can make a pension promise without actually putting money aside, essentially a pay-as-you-go approach. Early pension schemes in the U.S. often had this characteristic. Alternatively, the firm can set aside a "reserve" on its books for future pension liabilities. Such plan arrangements are common in Germany. For purposes of accounting this method will produce a more accurate

profit calculation than a simple pay-as-you-go approach, since it recognizes accrued liabilities. And since recorded profits are smaller at the time of liability accrual, income tax payments by the firm will also be lower. However, despite the device of a bookkeeping reserve, the plan "assets" are effectively invested in the firm; they do not have an existence independent of the enterprise.

Whether the pension is financed on a pay-as-you-go basis or is carried as a reserve, the plan's eventual ability to meet its promises depends on the economic fate of the enterprise. In one respect, such pensions can be seen as creating or enlarging a stakeholder interest of the employee in the employer since the value of his/her pension promise varies with the value of the firm. The pension could therefore be said to have a certain incentive effect, much as an employee stock ownership plan might have. However, the incentive effect - if it exists - is based on uncertainty about retirement income and thus puts the welfare of the employee seriously at risk. An employee who discovers at retirement or close to retirement that pensions promises will not be kept has few options for arranging alternative income.

Such risk is substantially lessened if the employer prefunds the pension promise through an independent pension trust, as occurs in the U.S. and U.K., or which contracts with an insurance company to provide the pensions (as some German firms do). In such trusts or contracts, the funds will be invested in a broad portfolio of securities which typically will contain at most a very limited proportion of liabilities of the employer. Risk of promise fulfillment then depends on a) the eventual return on the pension portfolio and b) the adequacy of employer funding. Deficiencies in either category could lead to default on future promises.

Pension protection can be provided for any type of plan by external insurance against inability to meet future pension obligations. In some cases, as in the U.S. and Germany, quasi-official insurance funds are created to back up private pension promises and provide benefits when defaults occur. These systems can create complex moral hazard problems, since in some cases employers may have positive incentives to default on their promises and push the liability to the insurance fund.⁶ Such problems are especially acute when a firm is already operating in bankruptcy since the claims of the insurance fund become lumped with those of other creditors.

Problems of pension protection do not arise under defined-contribution plans or personal pensions since there is no liability independent of the assets which have accumulated. They are also unlikely to arise in national pension funds of the French type since risk is spread over many employers and contributions are mandatory. In the case of government-run social security systems, payment of promised benefits is ultimately

ensured by the tax and money-creation authority of the state.

Even with state-backed insurance for pensions (or with defined-contribution plans and personal pensions), there is a potential inflation risk to retirees if their benefits are calculated in nominal terms. Social Security plans are typically indexed to consumer prices in Europe as in the U.S. Pensions from public entities (civil service pensions) are often indexed. Formal indexation of private plans is less common. The two French national pension plans are indexed to "pension point values" (as opposed to price inflation); these point values reflect forecasts of future revenues and costs of the plans. German pensions can be said to have de facto price indexation of retiree benefits, at least for companies not in financial difficulties. In other countries such as Britain, employers may provide ad hoc increases in benefits in response to price inflation, but are not required to do so.⁹⁷

v. The Financial Side of Pensions.

Prefunded defined-benefit pension systems and defined-contribution plans potentially hold large asset portfolios. In some cases, these portfolios can be managed by private financial services firms such as insurance companies. Such firms can also compete in the market for personal pensions. Within the Europe 1992 context, there is a drive to reduce barriers to cross-border activities of financial services firms and to create an internal insurance market and financial market. The market for providing pension services in countries such as the U.K., where enterprise-level pensions are common, becomes potentially attractive for insurance firms in countries such as France where enterprise-based pensions are rare.

However, there is a counterpart to insurance companies crossing borders to manage other firms' plans. For multinational firms which manage their own pension investments, that counterpart is to have a "European pension fund".⁹⁸ If financial services firms are to have freedom to cross borders in Europe 1992, those employers who wish to provide such services for themselves must logically be given the same freedom. Essentially, that is what the proposal for a European pension fund is designed to accomplish.

Such a fund would draw contributions from all subsidiaries of the firm within the EC which have enterprise pension schemes. Each subsidiary would make its own pension promises in accord with local law and company practice. Whatever tax benefits accrued to contributions to purely enterprise-level pension funds with a single country would also apply to the European funds. But assets of the European funds could be invested anywhere within the EC. And ultimately the funds would provide the resources to pay benefits

to retirees under each local plan within the multinational enterprise.

In short, there is a coincidence of economic interests of financial services firms seeking wider markets in the EC and of multinationals seeking European pension funds. Thus, the likelihood that such funds will be created pursuant to policies of Directorate-General XV of the EC is substantially higher than the likelihood that pension benefits will be harmonized. In effect, there is a greater probability of financial harmonization than of social harmonization of pension arrangements.

Efforts at unifying financial and insurance markets do pose a challenge for quasi-private compulsory national social insurance arrangements of the French type. There have been arguments within the EC that such arrangements have the effect of crowding out commercial providers of insurance and are thus restraints of trade. Public social security systems are explicitly exempt from such charges but arrangements which stand somewhere between public and private arguably do not share such an exemption. It seems unlikely, however, that exemptions will not be found for the French programs which are effectively social security under another label.

VI. Health Insurance Issues.

For pensioners, the benefit received is readily measurable; it is the income paid after retirement. But for those receiving health insurance, the benefit received is less tangible. Obviously, the expenditure needed to provide the insurance can be measured in monetary terms. But the benefit in terms of improved health is less tangible.

i. Benefits to Recipients.

Seen in monetary terms at the national level, the U.S. outspends its EC counterparts on health care, both relative to GDP and in absolute terms per capita. (Table 15) Indeed, in 1987 even the most prosperous of the EC countries spent barely more than half the amount per capita on health care than the U.S. The discrepancy is even more striking when it is noted that the EC countries provide national systems of medical coverage, so that almost all of their populations are covered by basic systems.

In contrast, the U.S. - because it has no national system - has gaps in population coverage; about 14% of the American population in 1987 had no health-insurance coverage, public or private.⁹⁹ Other things equal, the lack of coverage would be expected to lower both the U.S. health expenditure/GDP ratio and the

Table 15

National Health Expenditures and Health Outcomes

	Health Expend- itures as Percent of GDP, 1987	Health Expend- itures Per Capita as Percent of U.S., 1987 (a)	Life Expectancy at Birth, 1988	Infant Mortality Rate, 1988 (b)
Belgium	7.2%	43%	75.4	8
Denmark	6.0	39	75.3	7
France	8.6	54	75.7	9
Germany	8.2	53	75.8	8
Greece	5.3	16	77.0	12
Ireland	7.4	27	n.a.	n.a.
Italy	6.9	41	76.7	8
Luxemburg	7.5	51	n.a.	n.a.
Netherlands	8.5	51	77.1	8
Portugal	6.4	19	74.1	16
Spain	6.0	25	77.1	11
U.K.	6.1	37	75.1	9
U.S.	11.2	100	75.3	11

n.a. = not available

(a) Converted to U.S. dollars in purchasing-power parity terms.

(b) Deaths per 1,000 children aged less than one year.

Source: U.S. Bureau of the Census, Statistical Abstract of the United States 1989 (Washington: GPO, 1989), pp. 817-818; Organisation for Economic Co-operation and Development, Health Care Systems in Transition: The Search for Efficiency (Paris: OECD, 1990), p. 10.

absolute amount spent per capita relative to other countries. Yet the U.S. health expenditure/GDP ratio seems to be about 3 percentage points higher than would be expected based on its per capita GDP suggests.¹⁰⁰

There is a tendency for health care costs to rise relative to GDP in many countries. During the period 1975-87, for example, the health expenditure/GDP ratio rose in 10 of the 12 EC countries (and in the U.S.).¹⁰¹ In the U.S., the rise seems to have been due to a combination of relative health-care service inflation (a price effect) and greater use of those services (a quantity effect). Within the EC, the price side story has been more mixed and the quantity side is the more general cause of the rise in the ratio. (Table 16)

When measured by the most encompassing health index, life expectancy at birth, it is difficult to discern any relationship between health spending and this ultimate national health outcome.¹⁰² There is an expected negative correlation between health spending per capita and infant mortality, another broad national index. However, that correlation is swamped by the negative correlation of per capita GDP and infant mortality. The negative relationship suggests that a complex set of influences related to economic development (and not just health spending) is the driving force.¹⁰³

However, even on the basis of the gross data on national health outcomes and health spending, some conclusions can be drawn. For example, it would be difficult to say that the U.S. enterprise-based health insurance system has been especially effective at health-care cost containment as compared with EC countries. Most countries perceive a health-care cost containment problem but the U.S. system of leaving it to employers to police costs does not stand out as a success story. Indeed, there is little reason to think that employers - whose main preoccupation should be producing the goods and services they sell - should also be particularly adept at controlling health costs. And on the basis of two gross measures of health outcomes - life expectancy and infant mortality - it is difficult to find any beneficial effect of the larger American health outlay as compared with EC countries.

Gross health outcomes, to be sure, are not the only measures of the quality of health services provided. Passengers who fly first class and those who fly coach arrive at the same destination, but the former presumably have had a more enjoyable time. American discussions of foreign health arrangements often cite rationing of access to services unfavorably.¹⁰⁴ Americans might not be tolerant of queues for surgery and other such features that characterize the British socialized system. However, the international picture of service quality is actually quite varied.

American and French physicians, for example, work comparable numbers of hours per week and see

Table 16

**Inflation of Medical Care and Health Services Prices
Relative to General Consumer Prices**
(Annualized Percent Changes)

	Relative Medical Inflation	
	1960-87	1979-87
Belgium	.8%	.3%
Denmark	.1	-.4
Germany	1.3	.7
Greece	-.5	-1.8
Spain	1.4	.5
France	-.4	-1.3
Ireland	0.0	.9
Italy	1.0	1.0
Netherlands	2.2	-.4
U.K.	-.1	2.1
U.S.	.9	2.5

Source: Data drawn from Organisation of Economic Co-operation and Development, Historical Statistics, 1960-1987 (Paris: OECD, 1989), p. 79; U.S. Department of Health and Human Services, Health Care Financing Administration, Health Care Financing Review: 1989 Annual Supplement (Washington: GPO, 1989), p. 133.

their patients for about 14 minutes each. British physicians work notably fewer weekly hours and see their patients for 8 minutes each. On the other hand, in Holland and Germany - countries which provide health insurance but do not have socialized medicine - time spent with patients is also lower than in the U.S.¹⁰⁵

In short, measures of quality are difficult to assess. Are Germans receiving inferior care because they spend less time with their doctors? Again, it is necessary to fall back on a negative; it cannot be said for certain that Americans would be less happy with a system of health care provision along European lines, especially if it were an insurance (reimbursement) type system as opposed to a socialized government-as-service-provider system. Indeed, private health maintenance organizations (HMOs) in the U.S. - which covered about a third of the population with some form of health insurance in 1987 - operate by limiting patient choice and rationing of services.¹⁰⁶

From a human resource management perspective, the most striking contrast between U.S. employers and European is the lack of involvement of the latter in issues relating to health provision and cost. American employers - because they operate enterprise-based health insurance plans - are currently overwhelmed with issues of health-care cost containment. Fads come and go in the U.S. - second opinions, managed care, and the like. In contrast, individual European employers would not know an HMO from a PPO.¹⁰⁷ For better or worse, they are largely content to let questions of health care be settled at the national - not the firm - level.

ii. Mobility Aspects.

Enterprise-based health insurance arrangements raise portability and labor mobility issues similar to pensions. With European-style national programs, however, individuals can change jobs without losing health-care coverage. Thus, the labor-market changes that may be associated with Europe 1992 do not conflict with typical European health programs. In the U.S., in contrast, two kinds of portability issues arise. First, the coverage provided by employers may vary considerably in terms of expenses eligible for reimbursement and generosity of the reimbursement level. Thus, even if an employee is accepted by a new employer, he/she may lose elements of coverage if the new employer's plan is less comprehensive than that of the previous employer. Some U.S. employers, especially very small ones, may not provide health insurance at all. Indeed, small employers complain that insurance companies are reluctant to offer them health-coverage policies.¹⁰⁸

Second, employers and their insurance companies are anxious to hold down health care costs by screening out bad risks. One methods of screening is to exclude coverage for "pre-existing" illnesses and

conditions. Thus, an employee with a heart problem might have difficulty finding a new employer who would provide coverage for the problem. The same would be true for medical problems of the employee's dependents (spouse or children).

The variation in plan coverage and the issue of pre-existing illnesses are barriers to labor mobility. However, there does not seem to have been research on the magnitude of these barriers in the U.S. Not all mobility is voluntary in any case. For some employees the loss of health insurance is an additional cost of layoff.¹⁰⁹

In summary, the labor-mobility pressures which can be expected to accompany Europe 1992 integration do not conflict with European health plans. For the U.S., in contrast, there is a potential problem. American enterprise-based health insurance could in principle be made to operate as if it were a national system. For that to occur, however, there would have to be two elements.

First, coverage would have to be mandated for those employees not now receiving insurance. This proposal is currently a controversial matter at the federal and state levels in the U.S. Second, there would have to be greater government regulation of employer-provided plans. Specifically, some basic minimums of health coverage would have to be required so that employees could move from firm to firm without coverage loss. And there would have to be a prohibition on denials of coverage for pre-existing illnesses. Especially for smaller employers, such a prohibition would probably have to be accompanied by interplan financial transfers to cover high-risk employees. In effect, all employers would pay fees for coverage based on national-average health costs rather than company-average. These complex types of remedies have no significant counterparts in the European setting.

VII. Benefit Plans in Three Countries.

A wide range of benefit practices characterizes Britain, France, and Germany. All have national health insurance arrangements, so little will be said about that topic here. Variations occur, however, in the approach to retirement income., particularly in regard to enterprise-level pension programs.

EC data are available by detailed (mainly two-digit) industry on benefit expenditures. Table 17 illustrates the variables associated with greater pension spending in each of the three countries. Industries were ranked by the percentage of labor costs going to pensions (other than government-run social security) and the mean characteristics of the top half and bottom half of the ranking was computed. Because pension costs were not available for the U.K., the ranking and computation was based on so-called "customary"

Table 17

**Characteristics Associated with Pension
and Benefit Spending, 1984**

	Germany		France		U.K.	
	Bottom 18	Top 18	Bottom 20	Top 19	Bottom 18	Top 18
Pension Spending as Percent of Labor Costs	1.6	6.5	3.2	5.8	-	-
Customary Expenditures as Percent of Labor Costs	1.6	6.9	6.9	10.0	4.3	11.1
Monthly Labor Cost (ECUs)	1610	2269	1497	2203	1160	1700
Percent Female	48.2	25.4	45.7	24.0	-	-
Percent Part Time	18.0	6.2	5.6	2.1	12.6	8.2
Percent Non-manual*	22.3	36.7	28.5	51.3	-	-
Workers Per Establish- ment	54	714	125	530	-	-

- = not available.

*Excludes data from banking, trade, and insurance sectors.

Note: Composition of available industries varies slightly across countries. Data refer to establishments with 10 or more workers. "Top" and "bottom" refer to the number of industries listed in the source publication ranked by percentages of total compensation devoted to pensions or - for Britain - customary expenditures. Top 18 means the top-ranked 18 industries, for example.

Source: Statistical Office of the European Communities, Labour Cost 1984 (Luxemburg: EC, 1986), various tables.

expenditures as a percent of labor costs, a category which contains pensions.¹¹⁰

The correlates of pension spending will not surprise readers familiar with American labor-market data.¹¹¹ Industries which devote more pay to pension spending tend to be those with higher pay overall, more non-manual workers, and larger establishments. They tend to have fewer women and part-time workers. In short, pensions are associated with bigness, high pay, white-collar jobs, and male "permanent" workers. Even in France, where the figures are distorted by the dominance of the quasi-public national pension schemes, these associations seem to hold. For example, those industries which do have independent enterprise pensions include banks and insurance companies (with large white-collar workforces) and utilities (which are male-dominated). And these industries tend to be relatively well paid.

All of the characteristics associated with pension spending suggest low labor turnover. Thus, pensions tend to be linked statistically to reduced mobility. The linkage need not be causal, however. The high overall pay levels associated with pension spending would have a turnover-reducing effect, independent of the pension. Nonetheless, the pension-immobility association is a useful theme to consider and is a major focus of the discussion to follow.

i. Britain.

On the pension side, Britain resembles the U.S. more than many other EC countries. It has a substantial sector of employer-provided pensions which are funded through trust arrangements. Within Great Britain, 47% of the employed workforce (full-time and part-time) had an occupational pension in 1987. In the private sector, pension coverage is closely associated with firm size; 78% of employees at firms with 1000 or more employees were covered in 1987 compared with less than a fourth at firms with under 25 employees.¹¹² As Table 18 shows, pension coverage was generally higher among public employees and full-time workers than among private employees and part-timers. About half of uncovered part-timers at firms with a pension plan indicate that their non-membership in the plan was due to the lack of coverage of their particular job.¹¹³

Mobility issues surrounding pensions mainly involve defined-benefit plans.¹¹⁴ These plans are predominant in Britain. About 9 out of 10 workers under pension systems are covered by plans which gear retirement payments to final earnings. Only 6% are under defined-contribution plans (money-purchase) as their primary pension which are inherently portable. However, about 11% of covered employees make additional voluntary contributions toward their pensions, the funds from which are mainly handled as money-purchase plans.¹¹⁵ Such funds - similar to American 401k plans - are also portable.

Personal pensions are also 100% portable but until recently have not been major retirement income vehicles for employees. As of 1987, only 11% of the employed workforce had ever contributed to a personal pension (individual savings arrangement). Generally, higher-paid workers were more likely to be contributors than lower-paid workers. Employees at small firms (where employer-provided pensions are less common) were more likely to be contributors than those at large firms.¹¹⁶ But changes in government regulations (to be discussed below) are likely to increase the importance of personal pensions.

There is some evidence of a retreat from employer-provided pensions in Britain. For full-time males, coverage rates fell from 65% in 1985 to 62% in 1987; for females, the comparable figures were 56% down to 51%. Among younger British workers, the drop has been especially concentrated. New entrants to the workforce seem less likely to be covered by employer-provided pensions, even if they worked at employers which had pension programs and even if they held full-time jobs.¹¹⁷ This development suggests that young people and new entrants are taking up jobs which are more likely to be of the contingent variety than had been the case previously.¹¹⁸

On the health insurance side, the U.K. and the U.S. are in stark contrast. For non-elderly individuals, the U.S. relies on private insurance coverage, in large part provided through employers. The elderly are generally eligible for Medicare through Social Security but that scheme is basically a reimbursement arrangement; the central government is generally not the service provider. In Britain, the entire population is covered by the National Health Service (NHS) which is effectively both insurer and provider.

Because the NHS rations its services, a private sector does exist in Britain for those patients who wish to avoid queueing. (And it is also possible to pay for private care and avoid queues at NHS facilities). In 1987, about 8% of those aged 16 or over in Great Britain held private health insurance policies covering such treatment. (In addition, others were covered as their dependents). This proportion rose in the 1980s; it had stood at only 5% in 1982. Fifty-four percent of individual with private health care policies obtained their coverage through their employer, although about a fifth of these pay for the entire cost directly.¹¹⁹ However, as noted earlier, health insurance contributions by employers in Britain does not receive the tax advantages afforded to pensions. So the formality of who is said to pay for such insurance has no particular consequence.

*Historical Background.

Nineteenth century Britain and the U.S. had much in common regarding the origin of employee benefits. There was concern about support of elderly persons too old to work.¹²⁰ For the wealthy, a market

Table 18

**Membership in Employer-Provided or Personal
Pension Plans, Great Britain, 1987**
(Percent of Employment)

	Membership in Employer- Provided Pension Plan			Ever Covered by Personal Pension Plan
	All	Public Sector	Private Sector	
Full-Time Males	62%	92%	51%	15%
Full-Time Females	51	89	32	5
Part-Time Males	8%	12%	7%	n.a.
Part-Time Females	11	21	6	n.a.

Note: Part-time work is defined as 30 hours per week or less.

Source: Great Britain, Office of Population Censuses and Surveys, General Household Survey, 1987 (London: HMSO, 1989), pp. 146-148.

for annuities began to develop which was given certain tax incentives. But for the vast bulk of the population, income for old age support was largely a matter of savings, family support, and limited poor law relief. Some unions acted as beneficial societies and a few provided formal pensions. Burial insurance became available from commercial insurance companies.

Certain employers had informal practices of taking care of long service employees by providing them with reduced workloads (and pay) in their later years, or - as a last resort - a pension. A few large firms - especially railroads - evolved formal pension plans with defined benefits, as did the civil service. By the early part of the 20th century, recognition of the potential impact of inflation, pushed pension formulas toward use of final earnings (rather than career earnings) as the pension base. Some money-purchase (defined-contribution) plans also developed. Formal plans covered perhaps 5% of the workforce in 1900.¹²¹ Trust funds for pensions began to develop at around this time and, as these became more popular, tax concessions were granted to them.

The development of German social security arrangements in the late 19th century stimulated calls for British government programs going beyond local poor law relief. Here there was some departure from the American evolutionary process. Important voices in the British employer community supported some type of state-run system to head off socialist pressures; American employers and - indeed - American unions were not as likely to see virtues in government-run retirement systems. A national non-contributory, means-tested pension program was begun in Britain in 1908. In 1925, more generous pensions were provided under a contributory scheme without a means test. In contrast, the American Social Security with pension entitlements was not established until the middle of the Great Depression.

With the shift away from means testing in Britain, some employer-provided pension plans were permitted to contract out of the state system, a forerunner of modern British pension practice.¹²² On the other hand, the creation of the state scheme led to an erosion of the role of unions as providers of retirement benefits. Unions were often initially hostile to company-run pensions, which they saw as potentially anti-union, but could ultimately not prevent their growth.

In part, the spread of pensions was a matter of marketing. Private insurance companies, importing American practices, began selling group pension plans through employers. These plans could meet the needs of employees at smaller firms which were not easily able to administer their own programs. And eventually British unions - earlier than many of their American counterparts - began to negotiate pensions with

employers, including some multiemployer systems which permitted pension portability. However, it was not until the 1970s and 1980s that pension bargaining was seen as a major concern by British unions. As in the U.S., the possibility of being able to channel pension investments was part of the motivation behind this recent greater involvement.¹²³

By the mid 1930s, one in eight British workers was covered by some kind of occupational pension, still a relatively small fraction. But by the mid 1950s the proportion had reached one third.¹²⁴ As in the U.S. by that era, tax law had evolved as an important policy lever in influencing the operation and growth of the pension system.

The state side of pension provision was given a notable boost immediately after World War II as the Labour government widened welfare-state programs in accordance with the wartime Beveridge report. Contracting out, which had been permitted in the 1920s, was not accepted when benefits were increased in 1946. Nonetheless, the idea of such an arrangement was not forgotten. Indeed, without contracting out, some observers perceived an inequity since those with generous plans would receive their pensions on top of social security.

Until the late 1950s, the state social security pension had been a flat-rate system, unrelated to earnings. In various European countries with flat-rate schemes, there began to be moves toward creating an additional earnings-related tier of Social Security.¹²⁵ Thus, the British state scheme was supplemented in 1959 by a limited earnings-related second tier covering pay above specified levels and permitting contracting out of occupational pension plans. By that time, in Britain as in the U.S., insurance companies and pension operators had evolved into a considerable interest group which was not anxious to see the state preempt its activities. The evolving practice of raising compulsory state benefits, but permitting contracting out, created a new market among employers with no existing private pension systems. Since they were going to pay for benefits anyway, insurance companies could attractively offer to tailor company plans for these employers out of monies that would otherwise go to the state.

Benefits under the state-earnings related pension system (SERPS) and the private pension schemes which contracted out of it were substantially enhanced in the late 1970s by the then-ruling Labour Party government. This shift set the stage for the dramatic changes in pension provision which occurred under the Conservative Thatcher government in the 1980s. Under the Thatcher government, contracting out was carried to the individual level by permitting individuals to set up their own personal pensions (similar to American

Individual Retirement Accounts). Individuals could contract out of SERPS or a substitute employer-run plan, as will be discussed further below.

Britain's system of national health insurance followed a different path from its pension arrangements. Health insurance evolved mainly as a way of covering income loss through disability rather than as a way of paying medical bills per se. As with pensions, various state schemes, friendly society programs, insurance plans, and employer schemes arose in response to the fear of lost income during periods of ill health. And there was a limited offering of private policies to pay medical bills.¹²⁶ However, programs to pay such bills were largely preempted by state action in the late 1940s with the creation of the National Health Service. (In addition, the Social Security system provides sickness, maternity, and disability income protection.) Only during the Thatcher period did the private sector for medical care and insurance begin to take on notable proportions.

Although the NHS' position as a provider of health services was more in conflict with the political tilt toward privatization under the Thatcher government than that of other nationalized industries, an official proposal to privatize it was never made. The NHS appears to be the most popular form of British social insurance.¹²⁷ Employees of the NHS accounted for about 4% of total U.K. employment in the late 1980s,¹²⁸ but privatization of the system and substituting American-style employer-provided health insurance is not an idea that could win broad public support. Even attempts to restructure the NHS on a more price/cost sensitive model (while retaining government ownership) were viewed as politically difficult and were therefore deferred under the Thatcher government.¹²⁹

*Benefit Portability.

The existence of the NHS means that even for those who elect private health insurance, there is a basic health plan available regardless of job change. Were the private sector at some point in the future to become the major health care provider, the kinds of mobility questions related to health care, i.e., refusal of coverage for pre-existing illness, that are found in the U.S. could develop in Britain. But such a development seems unlikely. Hence, the benefit-portability issue is largely a matter of private pensions.

Important changes were made in British law governing pensions under the Social Security Act of 1986. Various motivations were involved at the time. The Thatcher government was nervous about the pay-as-you-go funding of the SERPS component of Social Security and wished to shift the coming baby-boom retirement burden more to employers (who prefund) and to personal saving. This nervousness was probably more a

matter of the future fiscal consequences rather than of the national saving rate. However, in Britain as in the U.S., it is difficult to find evidence that pensions substitute for non-pension saving.¹³⁰ Hence, conceivably a shift away from SERPS to prefunded private arrangements could raise national saving.

In addition to whatever budgetary concerns and saving rates were present, there was an ideological attraction within the Thatcher government toward individual responsibility and property rights. But seen in this light, even private employer-provided pension plans were a reflection of overall welfare-state policies that had accumulated over decades. As has been noted, the private pension system has been closely tied to government-run Social Security. Therefore, just enhancing occupational pensions would not be a true weaning of the public from past collectivism.

Proposals had begun to surface in the early 1980s for giving individuals greater control of their pensions including the promotion of personal pensions.¹³¹ These ideas found voice in the 1986 legislation. They can be seen as linked to other movements - pushed by British government policies in the 1980s - toward employee share ownership and profit sharing plans. Individuals were to become more attuned to markets and the market mechanism and to be more responsible for their own economic fate.¹³² Collective arrangements - especially unions - were to be discouraged and a more atomistic labor market was to be created.¹³³

Under the 1986 legislation (which became effective in 1988), the individual employee controls his/her participation in all retirement systems except for the flat-rate part of Social Security (which is mandatory).¹³⁴ If the individual is at an employer which does not offer him/her coverage under an occupational pension plan, he/she would ordinarily be under the SERPS part of Social Security which relates the pension to earnings. However, the 1986 law allowed the individual to contract out of SERPS and instead to maintain a personal pension. If the individual would ordinarily be covered by an employer-provided plan which is contracted out of SERPS, he/she in turn can contract out of the employer plan and instead maintain a personal pension.

Election of the personal pension option means that the employer contribution which would otherwise go to its occupational plan or to SERPS will instead go to the personal pension.¹³⁵ Various financial institutions now offer personal pension services including banks and insurance carriers. Individuals can seek advice on whether to opt out of SERPS or an occupational plan from sources ranging from popular magazines to professional accountants.¹³⁶ Obviously, the decision involves the risks of a defined-contribution plan

(which is, however, 100% portable) versus the security - but not complete portability - of a defined-benefit arrangement.

Although the 1986 legislation enables saving via a personal pension, it also attempted to make defined-benefit schemes more portable. Vesting was cut to two years and a price-correction factor was introduced for individuals who leave a plan before retirement age. As noted earlier, defined-benefit plans produce a seniority-related upward-sloping costs of quitting due in part to price inflation, in part to real wage growth, and in part to discounting. Correction of the price effect will tend to flatten the cost-of-quitting curve but will not completely even it out.

The British price correction factor is the increase in the retail price index up to a cap of 5% per annum.¹³⁷ Hence, if inflation runs above 5%, even the required price correction will not be complete.¹³⁸ Nonetheless, the official recognition of the mobility problem in Britain goes far beyond attempts in the U.S. (which have been limited to cutting normal vesting from 10 to 5 years). Moreover, the cash equivalent of the pension promise (which will be higher than otherwise due to the price-correction factor) can be transferred to another employer's plan (if the plan will accept it), a personal pension, or an annuity. In addition, the new rules allow defined-contribution (money-purchase) plans to qualify for contracting out for the first time. Such plans are inherently portable. And the rules also encourage voluntary employee contributions to supplemental pensions similar to American 401k plans.

Various subsidies to the private pension system are provided. First, defined-benefit plans are responsible for paying at least a Guaranteed Minimum Pension (GMP). However, when the retiree begins to receive the GMP, the private plan is only responsible for price indexation of the benefits up to a cap of 3% per annum. Should inflation exceed 3%, the Social Security system pays the additional amount needed for full protection of purchasing power. Thus, a government guarantee of a pension in real terms is provided as a stimulus to private pensions.

Employers with their own occupational pension plans may deny supplemental payments to employees who contract out of such plans and establish personal pensions. Such policies could in principle discourage such contracting out. However, to promote personal pensions, the 1986 legislation provided for a subsidy of 2% of pay beyond the contribution to Social Security of 5.8% which is rebated to personal pensions until April 1993. (The 2% subsidy is also available to employers creating new occupational pension schemes). Initial estimates were that 500,000 employees would open personal pensions initially with an expansion to 1.75

million by April 1990.

In fact, by that time the number stood at 4 million. The net cost to SERPS (reduced liabilities minus rebates) has been estimate at £6 billion through April 1993. Part of the eventual cost reflects incentives to opt back into SERPS at older ages; many persons are expected to game the system by opting out for personal pensions and opting back in to obtain a greater combined pension from the two sources.¹³⁹

In short, the interest of the Thatcher government in creating a more atomistic, individualistic labor market, combined with concerns over a pay-as-you-go Social Security system, led to the creation of a variety of pension reforms aimed at creating more portability and transferability of retirement benefits. The encouragement of personal pensions and money-purchase plans obviously has created more portability although at a potential cost of less certainty about retirement income adequacy. And the changes regarding defined-benefit pensions also move - although not completely - toward more portability and transferability.

*Observations on the British Experiment.

The British experiment in creating more labor-market flexibility through benefit reform is especially instructive to the U.S. where there has been little creative effort in that area. But note that British policy could in theory have gone much further. It could have terminated defined-benefit pensions and substituted personal pensions and money-purchase plans in their place. Such a change would have been a far more radical step than was politically possible, given the millions of employees already in the pipeline of defined-benefit programs. Termination of defined-benefit plans would have created complete portability, but would have exposed the workforce to greater pension risk. Thus, the actual product of the 1986 reform was a compromise.

It is ironic, however, that the ideological bias against public Social Security reduced the role of the SERPS plan which could be perfectly compatible with an atomistic labor market while offering retiree income security. SERPS would be completely portable if no contracting out were permitted. All employers would then be covered by the same plan. Shifting from pay-as-you-go to prefunding would require an increase in employer contribution rates to SERPS but not necessarily greater than the increased costs of shifting to personal pensions and other contracted-out arrangements. In that regard, the French approach to pension provision is instructive.

ii. France

The French system of social insurance manages to be both complicated and simple simultaneously. Its

history is complex and goes back to the spirit of the French revolution. As early as 1793, an official decree referred to securing the means to life of citizens unable to work.¹⁴⁰ However, the modern system of French social insurance is largely a creation of the post-World War II period with some absorption of earlier programs.

*Basic Retirement Income

After World War II, the basic pension component of social insurance became universally applied. There is a government-run social security system to which programs administered by various quasi-public "regimes" are added. Over the years, these regimes have either been amalgamated or, at least, coordinated. The result is that while operating procedures and formulas may be complex, the individual pensioner generally deals with a single administrative institution. However, there are exceptions for certain state-owned industries, banking, and other sectors. There is, in addition, a very limited amount of private pension provision, e.g., at firms such as IBM-France. And there are some tax-favored savings arrangements for individuals which could be used for retirement purposes.

The government-run social security system actually is divided into several categories. There is a general system which covers industry and trade to which most employees belong.¹⁴¹ However, special systems exist for such groups as agricultural workers, civil servants, the military, self-employed, etc. An analogy might be drawn here to the U.S. which has a social security system covering over 90% of employees but also has some special arrangements for railroad workers, certain federal workers, and others.

Although there is somewhat more Balkanization of the basic system in France than in the U.S., the basic outlines are similar for all subcomponents. All systems are supported through a combination of compulsory employer and employee contributions. All are funded on a pay-as-you-go basis (repartition). Pension payments from the basic system are on a defined-benefit basis, with a formula linking the payment to the highest 10 years of earnings, labor-force experience, and age. Unlike the American system, credits are given for specified periods of non-work such as unemployment and maternity.

*Complementary Retirement Systems

The French approach to social insurance and benefits deviates most dramatically from the American approach with regard to the "complementary systems" of retirement income. In the U.S., benefits beyond basic Social Security are left to the discretion of the individual employer, albeit with tax incentives provided. But in

France there is a second tier of national arrangements which are compulsory, but not created by statute. These arrangements were established through collective agreements between employer and union federations. They stand, therefore, somewhere between public and private provision of benefits.

Creation of the complementary systems had its roots in the ceiling on wage levels to which the basic social security system bases its pension. The first level up to the ceiling is termed the "A slice" (tranche) and is somewhat analogous to the taxable wage base in American Social Security. For higher-paid employees, coverage of successive slices (B, C) became an issue. The issue was especially important to employees classified as cadres, a term with no exact equivalent in English but which corresponds roughly to managerial and professional.¹⁴²

The result of pressure for retirement income based on higher wage levels was the creation of the AGIRC (General Association of Retirement Institutions for Cadres) during the immediate post-World War II period. In later years, AGIRC pensions came to be based on the A slice of wages as well as higher slices. Most of these arrangements came under the eventual coverage of the ARRCO (Association of Complementary Retirement Systems) in the early 1960s. Complementary systems are in principle run by the "social partners" but are tightly regulated by the social security code.

*The AGIRC

The AGIRC is actually composed of 57 coordinated institutions. These institutions operate collectively on a pay-as-you-go basis with cross-subsidies determined by the AGIRC as needed. Formulas determine the point accumulation of individual employees; these points later determine the amount of pension benefit through the establishment of a point value. Point values are set in references to the income of the system, future projections, and administrative costs. Normal retirement age is set at 65 with early retirement as low as 55 years.

Although there are basic minimum contributions which employers must make, employers can within limits (via collective agreement or majority poll of employees) provide more generous point accumulations than the minimums. As under the basic system, it is possible to accumulate points for non-work periods such as maternity. Formal escalation of pension benefits is not provided but the system is operated to keep pensions in line with cadres wage levels of active employees.

*The ARRCO

Although the ARRCO was founded for non-cadres employees, cadres institutions must be linked to the ARRCO for purposes of coverage of retirement benefits based on the A slice of wages. The ARRCO is a federation - like the AGIRC - of various institutions, 36 in all. It also functions on a pay-as-you-go basis and provides some enterprise-level discretion concerning contributions above a basic minimum. Like the AGIRC, a point system determines the eventual pension. However, early retirement is possible only down to 60 years; normal retirement is at 65.

***Other Retirement Systems**

While most employees fall under ARRCO or AGIRC coverage, special systems also exist for particular groups of employees including several systems for the self-employed. Membership is not always mandatory in these systems. Typically, there is a minimum contribution level with higher voluntary contributions permitted. Special systems exist for banks and the state-run electricity and gas utilities. However, these are reported to be in financial difficulties and in negotiations to join ARRCO.

***Retirement System Coordination and Benefit Levels**

Because there are a variety of retirement schemes - both at the basic social security level and at the level of the complementary plans - mechanisms for benefit coordination are provided for employees who have established eligibility in more than one system. There are also financial transfers between the various systems. These transfers sustain plans applying to industries such as railroads where there is a large ratio of pensioners to active workers. In practice, the core system covering most workers has been used to subsidize smaller sectoral systems.

For the complementary systems, benefit coordination is worked out within ARRCO or AGIRC in cases where the individual retiree has coverage under more than one institution. It is not left to the individual to draw on the various systems separately. Computerized data bases relating to member work histories under the federated institutions are used to determine the individual's pension entitlement.

Table 13 has already provided estimates of benefit levels that can be expected for career employees under the French system of retirement provision. Unfortunately, there does not appear to be an ongoing data base concerning average results of the system. However, it does appear from other sources that the career outcomes are generally in line with the data of Table 13. Generally, the replacement rates for the most highly-paid are less than for average or lower-than-average wage employees. And the variance in replacement rates

tends to be wider for the self-employed as compared with ordinary employees.¹⁴³

***Enterprise-Level Retirement Plans**

As noted, firms do have some discretion within the ARRCO/AGIRC framework to vary the generosity of their pension provision to employees. Thus, the principle of internal corporate policy regarding retirement remains alive in France despite the heavy degree of outside intervention. Beyond the variation allowed within ARRCO/AGIRC there are some examples of supplementary enterprise-based retirement programs.

Insurance companies can offer enterprises pension programs - or offer to administer such programs - either of the defined-benefit or defined-contribution types.¹⁴⁴ Where defined-benefit systems are used, they are typically prefunded; the pay-as-you-go model used at ARRCO and AGIRC is not followed. The tax code imposes limits on the degree to which such enterprise plans will receive favorable funding. Contributions beyond certain limits are taxable as current wages. Moreover, there are incentives for firms wishing to enhance retirement benefits to do so via the discretionary mechanism within the ARRCO and AGIRC systems.¹⁴⁵ No equivalent to American 401k plans exist whereby employees on a voluntary basis can engage in tax-favored savings based on their wages. If firms have enterprise plans, they must be compulsory to enjoy favorable tax treatment.

***Medical Insurance**

All employees who meet certain annual hours of work requirements, along with pensioners, the unemployed, and dependents of persons in these groups are covered by medical insurance through the social security system. The system is one of reimbursement with co-payments, e.g., 75% of doctors' fees are reimbursed with the patient paying the other 25%. Doctors associations and other health providers enter into agreements with the authorities regarding costs which are partially shared with patients. Some providers who are outside the system charge more than the agreed costs; patients who use such providers are reimbursed at a lower rate and must make up the difference from their own resources. The system is supported by a combination of employer and employee taxes.

Since not all medical expenses are reimbursed, there is sometimes available through employers supplementary health insurance provided by private carriers. Policies for cadres and non-cadres appear to be the norm in larger firms and these plans often reimburse for private treatment outside the social security agreements.¹⁴⁶ Unlike U.S. practice, however, employers do not exclude new hires from coverage on the

grounds of pre-existing illness, probably because so much of the risk is carried by social security. Hence, the mobility issue that is found in the U.S. does not appear to be significant in France.

***Labor Mobility**

Although Table 4 indicated that French workers tend to be less mobile than their American or British counterparts, in absolute terms there is considerable mobility. Those French workers who do change jobs are less likely to experience benefit losses as compared with workers in other countries because of the national social insurance arrangements. Some indication of the extent of French employee mobility can be found on Tables 19A and 19B.

Table 19A is based on the reconstructed lifetime work history of workers who retired under the ARRCO in 1989. The median number of lifetime reported employers of these retirees is between four and five. About a fifth of the retirees reportedly had 10 or more employers. Since employment that took place in the youth of these retirees may not be fully recalled, the figures shown on Table 19A can be presumed to be underestimates. (A 65 year old worker in 1989 would have had initial work history in the 1940s.)

A different view of mobility can be obtained from Table 19B based on data from the social security system. The data report the number of job changes of active workers during the 14-year period 1975-88, by birth cohort. Within in the youngest cohort - those born in 1955 (who would just have been entering the labor market at the beginning of the period) - about half are recorded as having made three or more job changes during 1975-88. Even among the oldest group - those born in 1925 - a majority report at least one job change. Thus, even among age groups which are least mobile, the prospect of changing jobs is a real one and the fact that benefit losses are not entailed is an advantage.

***Observations on the French System**

The French system of national and rather comprehensive health insurance leaves a lesser role for enterprises in retirement and health care. Certainly, there are problems with the system. The pay-as-you-go aspect of retirement income financing may become troublesome in the future as the baby boom retires.¹⁴⁷ And although health care spending is well below American levels, French health expenditures as a percent of GDP (Table 15) are high by European standards. However, if Europe 1992 creates added pressures for job mobility, the French approach to social insurance and benefits will not be an obstacle to needed structural shifts in employment.

Table 19A

**Lifetime Number of Enterprises by Which
Workers Who Became ARRCO Pensioners in 1989
Were Employed, France**

Number of Enterprises	Percent of Pensioners	Cumulative Percent of Pensioners
1	6.4%	6.4%
2	12.0	18.4
3	13.0	31.4
4	12.4	43.8
5	9.6	53.4
6	7.6	61.0
7	6.2	67.2
8	5.2	72.4
9	4.4	76.8
10	3.6	80.4
11	3.0	83.4
12	2.6	86.0
>12	14.0	100.0

Source: Unpublished data provided by Mr. Jacques Amzallag, chief actuary and technical director of ARRCO.

Table 19B

**Number of Job Changes During 1975-88
by Active Workers Under Basic Social Security, France**

Date of Birth	Number of Job Changes			
	Zero	One	Two	Three or More
1925	44.1%	29.5%	12.1%	14.3%
1930	32.7	30.6	16.0	20.6
1935	26.9	27.5	17.6	28.0
1940	23.9	27.2	18.2	30.7
1945	22.6	24.2	19.2	34.0
1950	19.8	24.4	18.0	37.8
1955	13.7	18.7	17.2	50.4

Source: Unpublished data provided by Ms. Michéle Tourne, chief actuary of the basic French social security system (CNAVTS).

iii. Germany

The recent unification of East and West Germany has tended to divert the attention of German policy makers from most other issues. These lesser issues include the make-up of the system of social insurance and benefits, except insofar as it affects the integration the eastern länder into the larger western economy. In principle, those East German enterprises that survive or are merged into western firms now come under the same regulatory arrangements regarding employee benefits and social insurance as their western counterparts. But most of the immediate problems relating to benefits and insurance will affect the public provision of social insurance much more than the private aspects.¹⁴⁸

Despite the obvious fascination of the East-West unification process, more conventional issues remain. Europe 1992 poses potential problems for the German benefits system - especially on the pension side. Germany is the largest economy within the EC and the competitive forces unleashed by the 1992 reforms will certainly be felt in its labor market. These pressures can already be seen, for example, in legislation in the 1980s designed to regularize the use of temporary workers in Germany.¹⁴⁹ Use of part-time workers and (employer-initiated) changes in work hours have begun to be negotiated in collective agreement.¹⁵⁰ Thus, issues of labor mobility and economic restructuring cannot be avoided.

*Basic Social Security

With regard to government-provided social insurance, Bismarck's Germany has long been regarded as the pioneer of the 19th century. Largely to fend off a socialist threat, the early German social insurance system provided for pensions as well as accident and sickness insurance. German innovations in these fields had important influences on the development of social security in other countries at the turn of the century. However, as in most industrialized countries, the modern system of German private benefit provision is largely a post-World War II creation.

German social security covers almost all workers, other than civil servants who have their own program. There are also provisions for certain categories of self-employed persons and individuals not covered may participate on a voluntary basis. Administration of the system is a joint federal-state matter although social security policy is a federal responsibility.

As in the French case, the system operates on a pay-as-you-go basis. Thus, concern about the costs of paying for the retirement of the baby boom has been reflected in recent changes in the system. For example, in a manner similar to the American response, options for early retirement are scheduled to be made less

generous and a schedule of increasing employer and employee contributions is in place.

***Medical Insurance**

German social security includes medical insurance for all employees earning below a specified ceiling. The insurance is administered by over 1,100 decentralized funds controlled by boards representing employers and the insured. About 90% of the population is covered by the overall program.¹⁵¹ Medical insurance is intertwined with a program of paid sick leave under which employers must provide 100% of pay for an initial specified period during medical leaves; thereafter, statutory sickness funds pay 80% of earnings for an additional period. Medical care is provided by doctors, hospitals, and druggists under contract with the sickness funds.

Those persons earning above the program ceiling can voluntarily participate in the social security medical system or obtain private insurance. In either case, the employer must make a designated contribution. The private health insurance market consists largely of higher-paid individuals who decide not to belong to the social security plan.

The medical insurance system is quite generous - most health expenses are covered in full or with only a limited deductible. But concerns about the expense of the system have led to some limited steps toward more cost sharing with patients. Nonetheless, because the system remains so comprehensive, even large firms are unlikely to provide supplemental medical programs.¹⁵² Thus, issues of employee mobility with regard to health care are absent from the German health insurance system.

***Social Security Retirement Benefits**

Retirement benefits in Germany come from two primary sources: social security and enterprise-administered pension programs. In that respect, Germany is more similar to the U.K. and the U.S. than to France. Contributions to the social security component are divided between employer and employee, as in the U.S., although very low incomes are exempt from contribution. Normal retirement age is 65 but full social security pensions are available at age 60 to the unemployed, women who have had a substantial workforce attachment, and certain others. Early retirement options are available (at reduced pensions) including a partial retirement scheme permitting reduced work and pay and a fractional pension. Employees who delay retirement to age 67 - in contrast - receive increased pensions.

Social security retirement benefits are based on workforce experience (including, however, schooling,

military service, and - for women - credits for child bearing) and earnings (up to a ceiling). They are indexed annually to average pay of active employees. Various survivor and disability elements are attached to the basic plan.

***Private Retirement Plans**

As in other countries, some large firms in Germany had pension plans by the late 19th century. But the modern (West) German pension system developed after World War II, in part because of a perception that pensions could be used as a growth-stimulating source of enterprise finance. Despite the widespread perception that pensions have been important to the economy, data on the operation of German pensions are remarkably sparse; no regular official statistical surveys regarding pension plans are produced.¹⁵³

There is no mandate requiring German firms to provide pensions. Roughly two thirds of German employees, however, are reported to be covered by some form of pension arrangement although not all will necessarily qualify for a pension as a result.¹⁵⁴ Nine out of ten plans are of the defined-benefit type.¹⁵⁵ However, the defined-contribution plan is said to be experiencing increased popularity.¹⁵⁶ A relatively long vesting period of ten years service is the legal maximum.

Four types of funding mechanisms for pensions are found in Germany: book reserves, solidarity funds, direct insurance, and pension trusts. Pension trusts are similar to the American model; monies are invested in an independent trust to provide for future liabilities. Direct insurance refers to a contract between the employer and an insurance carrier whereby the latter undertakes to meet future pension commitments and charges the employer sufficiently to pay for it. In effect, the insurance carrier acts as a pension trust. This mechanism is often used for pensions of high-level executives.

Solidarity funds are what Americans would call multiemployer pensions; a central trust receives payments from various employers in an industry and pays benefits to retirees. Finally, the book reserve system, which as Table 20 shows is by far the most important funding mechanism, involves carrying a "reserve" on the books of the employer against future pension liabilities.

With the exception of direct insurance plans, all pension arrangements are required to be (partially) insured with the Pension Security Fund (PSV), a specialized insurance company created by employers and private insurance carriers. PSV contributions are based on experience of the fund. Major corporate bankruptcies, e.g., A.E.G.-Telefunken in 1982, can deplete PSV reserves and call forth increased contributions from active employers.¹⁵⁷

Table 20

**Composition of Reserves for Enterprise Pension Plans,
West Germany, 1989**

Type of Plan	Percent of Reserves in Each Type of Plan
Book Reserves	70%
Solidarity Funds	10
Pension Trusts	15
Direct Insurance	5

Source: Paul Maillard, Votre Retraite? (Paris: Castellange Diffusion, 1990).
p. ---.

German pension liabilities are not fixed in nominal terms, as is the American norm. By law, benefits being paid to retirees must be reviewed every three years taking into account price inflation, pay increases of active employees, and the economic state of the firm. In practice, except in periods of financial stringency, this means that pensions are increased by the lesser of the first two factors.

*The Book Reserve System

The book reserve system of pension finance is in fact a varied system. In its simplest version, book reserves are difficult to differentiate from unfunded pension liabilities. The firm creates a reserve equal to its accrued liabilities. This accounting transaction reduces recorded profits (and therefore taxes) but no asset other than the commitment of the firm stands behind the pension liability. In effect, workers have their pensions invested in their employer; bankruptcy of the employer threatens actual receipt of pensions.

However, the system is more complex in actual operation. Some firms - especially smaller ones - informally hold liquid assets against their reserve liabilities. Others contract with insurance companies to reinsure their liabilities. Premiums paid for such insurance are tax deductible and the carrier presumably holds reserves against its assumed liabilities and exercises some supervisory influence over the employer's assets. Finally, the PSV, as noted above, acts as an insurer of last resort.

It is book reserves which have been seen by German employers and policy makers as a national advantage in providing for corporate finance.¹⁵⁸ Yet it is not obvious that optimum financial policy at the firm level consists of carrying the equivalent of an unfunded liability. If the alternative is to create a pension trust - and if tax law permits earnings in such trusts to accumulate on a tax-free basis - then a case can be made that optimum finance consists of maximum allowed funding in a relatively riskless asset.¹⁵⁹ Leaving the plan totally unfunded - which is what (uninsured) book reserves amount to - would not be optimal policy under this approach.

It is even less obvious at the national level that efficiency is encouraged if firms can borrow more cheaply from their workers than from the outside market. Perhaps a case can be made that managers know better than the outside market what returns can be expected from alternative company investments. But it is also possible that having a source of funds available without external scrutiny creates a classic principal/agent problem and the potential for inefficient allocation of resources.

As a matter of social policy, investing employee pensions in a single employer puts workers at special risk in the event of bankruptcy. Some economists might be tempted to describe such an arrangement as

simply an ersatz profit-sharing plan designed to achieve group incentives. However, German employers can install more ordinary profit-sharing if they wish; there is no evidence that pensions were developed in place of profit sharing. Although the PSV does act as a partial back-up to pension promises, the problem of having a risky pension asset - a claim on a single employer - is simply transferred by this system to another institution. As the American experience with compulsory pension termination insurance indicates, moral hazard problems can develop from such arrangements.

*German Pensions and Europe 1992

As compared with French and British arrangements, German pensions seem most in need of scrutiny in the light of Europe 1992. Their book reserve funding is predicated on continued corporate stability, a questionable assumption. Their long-duration vesting period assumes long-term worker attachments and an absence of involuntary separations, again questionable assumptions. Unlike some other EC countries, Germany has not been developing policies aimed at providing transferability of pension rights across pension systems for job changers. Finally, the assumption that book reserve financing stimulates economic growth (relative to other forms of saving) or was an important factor in the postwar German "economic miracle" is at best an unexamined assertion.

VIII. Conclusions

The provision of employee benefits and social insurance reflects two basic forces. First, societies make a decision regarding public versus private provision. There is a strong ideological component to this decision. Second, the perceived character of the ideal employer-employee relationship importantly influences the degree to which employers are involved in the private side of benefit provision.

European countries - including the three discussed most intensively above - have almost uniformly tilted towards public provision with regard to health insurance. That tilt has left less room for an employer role in health care than is typical in the U.S. With regard to pensions, however, although Europeans tend to develop a larger role for the state than is found in the U.S., there is wide variation in the employer role in Europe regarding retirement income.

All developed countries have public social security systems which are an important - and sometimes the key - element in providing income for the elderly. But above social security, some societies such as the U.K., U.S., and Germany leave space for a significant employer role. Others, such as France, essentially

preempt the employer role at the enterprise level.

In the pre-World War II period, health insurance was little developed on either side of the Atlantic. Thus, after the war, there was no significant base of past employer practice on which to draw as a model for the provision of this service. European countries, which traditionally saw an important role for the state in providing for citizen welfare, were not averse to developing national programs of health provision. These postwar programs ranged from British socialized medicine to French public health insurance. American society, which in political terms was moving rightwards after the New Deal experiment, and which rejected any programs which appeared to be "socialistic", developed the employer-provision model.

But both Europe and the U.S. did have prewar experience - even if not very extensive - with employer-provided pensions. Provision of a pension was the mark of a "good" employer which took a paternal interest in the welfare of its employees. The immediate postwar period was an era of large firm dominance and a quest for security. It was thought that good employers should be providing job security; hence, mobility issues ought not to be important. Firm-level pensions which were built on the assumption of career employment could fit nicely into such a world, especially if endorsed and supported by tax incentives. But in countries with more statist and corporatist urges, pensions could also be left to social security and other collective mechanisms.

The difficulty with social insurance and benefit system - especially pensions - is that once in place they are difficult to change. Many persons are always in the pipeline; changing the rules can make life difficult for them, especially for those who are depending on the current system and who are close to the end of their working lives. Despite the inertia, institutional pressures can encourage change. The general movement toward Europe 1992 is such a pressure.

In seeking to harmonize regulations and policies in various economic spheres, EC countries are being forced to make comparative assessments. The impact of cross-border mobility - which might seem to be an important incentive for benefit harmonization - is in fact not great. But growing awareness of differences in approach to benefits across countries could have important long-term effects on benefits and social insurance within Europe. The fact that there are alternative routes to retirement income and health care is becoming more and more evident.

Internal labor mobility pressures may also have important long-term effects. Europe 1992 is likely to require significant structural change and more labor mobility, both voluntary and involuntary, can be

expected. Countries with benefit structures external to the firm have one less barrier to labor mobility about which to worry. Thus, French workers can change jobs without jeopardizing defined-benefit pension rights. And British workers can obtain new employment without fear of losing health coverage due to pre-existing illness exclusions. Whatever other drawbacks these systems may have, mobility limitations are not among them.

European benefit and social insurance arrangements are better adapted to changing labor market needs than are corresponding American arrangements. This feature is mainly an historical accident rather than the result of either prescient planning or economic forces; in the past, there have been higher rates of labor mobility in the U.S. than in Europe. Nonetheless, some European countries - notably Britain - whose pension systems might pose mobility barriers are experimenting with reforms. That is more than can be said about the U.S., where benefit reform has meant little more than unproductive tinkering with the tax code and hand wringing about health care cost containment. The U.S. could learn much from European benefit and social insurance systems and developments.

Appendix Table A1

**Descriptive Annual Regression Results for Percent Change
in Civilian Employment: 1974-1987**

	Constant	Percent Change in Real GDP	Dummy for 1980-87	Adjusted R-squared
France	-.8**	.4**	-.1	.71
Germany	-1.7**	.5**	1.0*	.42
U.K.	-.3	.3	-.4	.03
U.S.	1.3**	.5**	-1.0**	.78

*Significant at the 10% level.

**Significant at the 5% level.

Source: Data from Organisation for Economic Co-operation and Development, Historical Statistics, 1960-1987 (Paris: OECD, 1989), pp. 44, 27.

Appendix Table A2

**Descriptive Annual Regression Results for Percent Change
in Manufacturing Hours and Employment: 1974-87**

	Constant	Percent Change in Output	Dummy for 1980-87	Adjusted R-squared
France				
Hours	-4.6**	.8**	1.5	.45
Employment	-1.6**	.2	-.6	.35
Germany				
Hours	-3.6**	.6**	1.5*	.62
Employment	-2.2**	.4*	1.0	.18
U.K.				
Hours	-1.5*	.6**	-2.9**	.72
Employment	-1.1	.4**	-3.0**	.50
U.S.				
Hours	-.9	.7**	-1.8*	.88
Employment	-.3	.6**	-2.2	.76

Source: Data drawn from U.S. Bureau of Labor Statistics, Handbook of Labor Statistics (Washington: GPO, 1989), Table 146.

Appendix Table A3

**Descriptive Cross-Country Regression Results for Pay
Expressed in U.S. Dollars: 1987**

	EC12: Manufacturing			EC12: All Sectors		
	Direct	Total	Total	Direct	Total	Total
GDP/ Employee	.00025**	.00037**	.00039**	.304**	.463**	.499**
%Agriculture	-.085	-.045	-.012	-253.66	-208.68	-154.61
%Manufacturing	-.076	.043	.107	-207.24	-58.43	48.12
%Female	.042	-.009	-.029	46.94	-12.72	-45.25
Direct/ Total	-	-	7.320	-	-	12075*
Constant	1.900	-4.22	-7.900	8990	5954	6375
Adjusted R-squared	.77	.91	.92	.80	.94	.96

	EC12+10: Manufacturing			EC12+10: All Sectors		
	Direct	Total	Total	Direct	Total	Total
GDP/ Employee	.00027**	.00034**	.00034**	.476**	.601**	.608**
%Agriculture	-.064	-.082	-.082	-68.85	-63.17	-48.53
%Manufacturing	-.127	-.098	-.100	-64.21	37.34	79.57
%Female	.044	.075	.075	2.57	27.28	31.04
Direct/ Total	-	-	-.535	-	-	6961
Constant	2.111	.840	1.344	582	-3297	-10320
Adjusted R-squared	.83	.89	.89	.83	.94	.95

*Significant at 10% level.

**Significant at 5% level.

Appendix Table A3 - continued

Definition of variables:

Direct = pay excluding private and legally-required benefits (hourly for manufacturing; annual for all sectors).

Total = direct plus private and legally-required benefits.

%Agric = percent of employees in agriculture.

%Mfg = percent of employees in manufacturing.

%Female = percent of labor force which is female.

Note 1: EC12 are the twelve countries of the European Community. EC12+10 are the EC12 plus Austria, Finland, Norway, Sweden, Switzerland, U.S., Japan, Canada, Australia, and New Zealand.

Note 2: For all sector regressions, direct was calculated by multiplying total by the direct/total ratio for manufacturing.

Source: Data drawn from U.S. Bureau of Labor Statistics, Supplementary Tables for BLS Report 794, October 1990, Tables 2 and 5; Organisation for Economic Co-operation and Development, Historical Statistics, 1960-1987 (Paris: OECD, 1989), pp. 14-15, 18, 33, 36-37.

1. Robert C. Shelburne and Gregory K. Schoepfle, "The European Community 1992 and U.S. Workers," Monthly Labor Review, vol. 113 (November 1990), pp. 22-27.
2. Paolo Cecchini, The European Challenge 1992: The Benefits of a Single Market (Brookfield, Vt.: Gower Publishing Co., 1988), pp. 82-85.
3. All data and references refer to the former West Germany.
4. This ranking is in keeping with other indicators of social intervention. An OECD tabulation of public social expenditures to GDP in the mid 1980 found France to be an outlier, far above the average for OECD countries, Germany to be somewhat above the average, and the U.K. (and the U.S.) to be significantly below the average. Source: Organisation for Economic Co-operation and Development, The Future of Social Protection (Paris: OECD, 1988), p. 10.
5. As an extreme example, a French employee who works during his mandated vacation can be penalized. See International Labour Office, International Labour Conference, 70th Session, 1984, Report III (Part 4B) (Geneva: ILO, 1984), p. 126, footnote 2.
6. As Ulman points out, the industrial relations scene was potentially more explosive in Europe, leading employers (or governments) to acquiesce in a union role. See Lloyd Ulman, "Who Wanted Collective Bargaining in the First Place?" in Barbara D. Dennis, ed., Proceedings of the Thirty-Ninth Annual Meeting, December 28-30, 1986, Industrial Relations Research Association (Madison, Wisc.: IRRA, 1987), pp. 1-13.
7. A useful guide to EC institutions is Alex Roney, The European Community Fact Book (London: Longman Financial Services Publishing, 1990).
8. Not surprisingly, employers often argue for national solutions to social questions - "subsidiary" solutions - whereas unions will argue for EC-wide rules. See Bureau of National Affairs, Inc., "Employment Regulation in a United Europe: A Survey of Expectations in the European Community," special report supplement to Daily Labor Report (June 22, 1990).
9. See Office for Official Publications of the European Communities, 1992 - The Social Dimension (Luxembourg: EC, 1990); Commission of the European Communities, Directorate General for Employment, Social Affairs, and Education, Social Europe: The Social Dimension of the Internal Market (Luxembourg: EC, 1988).
10. John Blackwell, "The Economic Impact of Social Conventions and Social Standards," unpublished paper for an OECD seminar, July 5, 1990.
11. There is a history of social charters in Europe. Under the auspices of the Council of Europe, a European Social Charter was adopted in 1961. See Council of Europe, 25th Anniversary of the European Social Charter (Strasbourg, CE, 1986). On more specific efforts at implementing social goals, see Jacques Rojot, "L'Europe Social," Revue Française de Gestion, vol. — (March 1991), pp. —.
12. Commission of the European Communities, Community Charter of the Fundamental Social Rights of Workers (Luxembourg: EC, 1990).
13. It should be noted that the European Commission's companion "Action Programme" to implement the Social Charter did not initially attempt to define the reference wage beyond the vague language of the Charter. See "Social Charter" Action Programme Released, European Industrial Relations Review (January 1990), pp. 11-15.

14. The earlier draft can be found in "Charter on Fundamental Social Rights," European Industrial Relations Review (July 1989), pp. 11-23, 27-29.
15. "EC Commission Proposal Rules (sic) Standardizing Benefits for Part-Timers and Temporaries," Daily Labor Report (June 15, 1990), pp. A3-A4. This proposal would require unanimous consent by the Council of Ministers. However, the commissioner for Social Affairs is reportedly pushing for a constitutional change permitting majority voting on social laws. "More Rights for the Workers," Economist (July 28, 1990), p. 60. In late 1990, action was deferred on two controversial rules requiring a proportionality standard for social security benefits for part-times and limiting temporary employment contracts to 36 months. "European Community Ministers Defer Action on Social Security," Daily Labor Report (December 20, 1990), pp. A1-A2.
16. For example, the same proposed directive speaks of participation in a company's internal social services.
17. Alan C. Neal, "Infusing a Social Dimension in the Post-Thatcherite British Labor Market" and Jacques Rojot, "The Social Dimension of the Single European Market," papers presented at the ALAR conference, Milan, January 14-15, 1991, to appear (in Italian translation) in Diritto della Relazione Industriale, forthcoming.
18. The case is Barber v Guardian Royal Exchange Assurance plc (1990). Mr. Barber was laid off at age 52 under a plan in which the normal retirement age was 62 for men and 57 for women. The plan provided for full pensions for laid-off individuals within 7 years of normal retirement. Thus, had Mr. Barber been a woman, he would have collected a full pension. British anti-discrimination law provided an exception for retirement schemes. However, the Court ruled that Article 119 of the Treaty of Rome, which applies the principle of equal pay for equal work, overrode British law. The court rejected the claim of the British government that because the plan was contracted out of Social Security, it was part of the Social Security system and hence not "pay". Sources: Trades Union Congress, Pensions Briefing, No. 12, June 1990, pp. 2-7; "ECJ Rules on Pension Equality," European Industrial Relations Review (July 1990), pp. 20-21.
19. The Court of Justice decision has not at this point outlawed discrepancies in retirement age by sex in government-run social security programs.
20. Bureau of National Affairs, Inc., "Multinational Firms with Pension Plans Seen Affected by EC Discrimination Ruling," Daily Labor Report (July 9, 1991), pp. A13-A14.
21. Winfried Schmähl, "On the Future Development of Retirement in Europe Especially of Supplementary Pension Schemes: An Introductory Problem Overview," paper from a conference held in Bremen, January 1990, p. 26.
22. See, for example, "EEC: Social Rights Action Programme," European Industrial Relations Review (February 1990), pp. 26-29, especially p. 27.
23. Scott Lash and John Urry, The End of Organized Capitalism (Madison, Wisc.: University of Wisconsin Press, 1987).
24. Michael J. Piore and Charles F. Sabel, The Second Industrial Divide: Possibilities for Prosperity (New York: Basic Books, 1984).
25. More recent data regarding U.S. and German job tenure were calculated in Lutz Bellman and Ulrich Schasse, "Employment Tenure in the United States and the Federal Republic of Germany," discussion paper no. 123, Fachbereich Wirtschaftswissenschaften, University of Hanover, August 1988. The estimates for the mid 1980s indicate higher eventual tenure probabilities for Germany. For example, a worker aged 30-34 in the U.S. had a probability of attaining 20+ years of tenure of 7.7%. The German figure was 27.5%. We are grateful to Christof Buechtemann for this reference. Other estimates can be found in Organisation for Economic Co-operation and Development, Employment Outlook, September 1984 (Paris: OECD, 1984), p. 56.
26. For example, Organisation for Economic Co-operation and Development, Mechanisms for Job Creation: Lessons from the United States (Paris: OECD, 1989).

27. The sectors are agriculture, mining, manufacturing, utilities, construction, trade, transportation, finance, and community services.
28. See, for example, Paul D. Staudohar and Holly E. Brown, Deindustrialization and Plant Closure (Lexington, Mass.: Lexington Books, 1986).
29. Richard B. Freeman, "Evaluating the European View that the U.S. Has No Unemployment Problem," working paper no. 2562, National Bureau of Economic Research, 1988.
30. For the entire business sector the annual rate of increase in the U.S. was about .2%.
31. However, progress on the issue of cross-border recognition of occupational credentials and others. See Jean-Claude Séché, A Guide to Working in a Europe Without Frontiers (Luxemburg: Office for Official Publications of the European Communities, 1988).
32. For example, about 7% of the workforce in the French province of Alsace commutes into Germany and Switzerland. About 3% of the workforce of Lorraine commutes into Germany, Belgium, and Luxembourg. Source: Tom Mashberg, "Alsace Booms as Lorraine Lags," New York Times, December 24, 1990, p. 34.
33. Population figures are somewhat higher because foreign nationals bring with them non-working dependents. In 1987, about 4 percent of the population of EC countries was foreign, almost two thirds of these foreigners were from non-EC countries. Source: Office for Official Publications of the European Communities, Labour Force Survey 1987 (Luxembourg: EC, 1989), pp. 68-69, 92-93.
34. Office for Official Publications of the European Community, 1992 - The Social Dimension, op. cit., p. 32.
35. A total of 256,000 EC migrants fell into this category. See J.A. Jolliffe, "The Portability of Occupational Pensions Within Europe," discussion paper, Watsons Europe, January 1990, p. 5.
36. Jolliffe, "The Portability of Occupational Pensions Within Europe," op. cit., p. 10.
37. ILO Convention 118 (1962) requires equality of treatment of migrant workers with nationals. And there are other ILO conventions designed to protect migrant rights. See International Labour Office, Introduction to Social Security (Geneva: ILO, 1984), pp. 151-161.
38. Certain others are eligible in Germany and France such as the unemployed. France requires a certain minimum of hours of work in each year, half year, or quarter before health benefits are paid. Source: Commission of the European Communities, Comparative Tables of Social Security Schemes in the Member States of the European Communities, 15th edition (Luxembourg: EC, 1989).
39. U.S. Department of Health and Human Services, Social Security Programs Throughout the World - 1987 (Washington: GPO, 1988), p. xxvi; Paul Butcher and Joseph Erdos, "International Social Security Agreements: The U.S. Experience," Social Security Bulletin, vol. 51 (September 1988), pp. 4-12.
40. Hewitt Associates, Europe 1992: Business Outlook and Human Resource Planning in Multinational Companies (Lincolnshire, Ill.: Hewitt, 1990), pp. 21, 35-36, 38. An informal survey of British companies suggested more concern about higher pay and benefit levels on the continent rather than about the compatibility of benefit plans. See "1992 - Evidence of UK Companies Responding," European Industrial Relations Review (May 1989), pp. 22-27.
41. A review of European protections can be found in Michael Emerson, "Regulation or Deregulation of the Labour Market: Policy Regimes for Recruitment and Dismissal of Employees in the Industrialised Countries," European Economic Review, vol. 32 (1988), pp. 775-817.
2. There is a vast American literature on this topic. See, for example, James N. Dertouzos, Elaine Holland, Patricia Ebener, The Legal and Economic Consequences of Wrongful Termination (Santa Monica: Rand,

43. A summary of European practices can be found in Organisation for Economic Co-operation and Development, Flexibility in the Labor Market: The Current Debate (Paris: OECD, 1986), chapter 3.
44. For example, in Britain workers may receive as much as 30 weeks pay upon termination depending on age and seniority. Notably, however, many British firms pay more than the law requires. See "Redundancy Pay Survey," Employment and Industrial Relations Review (March 1988), pp. 15-16.
45. Since the figures are based on annual data, it is possible that temporary layoffs were used rather than just weekly hours reductions.
46. In the regressions for Tables A1 and A2, a dummy variable was inserted for the period 1980-87 because some discrete shifts in productivity performance may have occurred in the 1980s.
47. See Organisation for Economic Co-operation and Development, Labour Market Flexibility: Trends in Enterprises (Paris: OECD, 1989); Richard S. Belous, The Contingent Economy: The Growth of the Temporary, Part-Time and Subcontracted Workforce (Washington: National Planning Association, 1989).
48. See Ann E. Polivka and Thomas Nardone, "On the Definition of 'Contingent Work,'" Monthly Labor Review, vol. 112 (December 1989), pp. 9-16.
49. The proportion of people on part-time schedules in the U.S. rose from about 15% in the late 1960s to about one fifth in the late 1980s. Source: U.S. Bureau of Labor Statistics, Handbook of Labor Statistics, bulletin 2340 (Washington: GPO, 1989), p. 121. Some of the upward creep has been associated with higher female participation in the workforce. Women are more likely than men to work part-time. There was also an increase in multiple job holding ("moonlighting") in the 1980s; almost all moonlighters hold at least one part-time job. See John F. Stinson, Jr., "Multiple Jobholding Up Sharply in the Eighties," Monthly Labor Review, vol. 113 (July 1990), pp. 3-10.
50. International Labour Office, Conditions of Work Digest, vol. 8 (1:1990), pp. 45, 52.
51. Source: U.S. Bureau of the Census, Statistical Abstract of the United States: 1990 (Washington: GPO, 1990), pp. 386-387.
52. On union decline, see Leo Troy, "Is the U.S. Unique in the Decline of Private Sector Unionism?," Journal of Labor Research, vol. 11 (Spring 1990), pp. 111-143; and Jacques Rojot, "Industrial Relations in Europe: Recent Changes and Trends," International Journal of Comparative Labour Law and Industrial Relations, vol. 4 (Summer 1988), pp. ---.
53. Werner Sengenberger, Gary W. Loveman, and Michael J. Piore, The Re-Emergence of Small Enterprises: Industrial Restructuring in Industrialised Countries (Geneva: International Institute for Labour Studies, 1990). There has been some dispute in the U.S. about whether small businesses really grew faster than large in the 1980s. See Charles Brown, James Hamilton, and James Medoff, Employers Large and Small (Cambridge, Mass.: Harvard University Press, 1990), chapter 3. However, it seems clear that establishment size (which is related to, but not identical to, firm size) fell. And it is well known that the much-watched Fortune 500 industrial firms shrank in employment while total employment in the overall economy rose. See Daniel J.B. Mitchell, "Wage Pressures and Labor Shortages: The 1960s and the 1980s," Brookings Papers on Economic Activity (2:1989), pp. 209-211. Evidence on manufacturing establishment size (employees/establishment) from the U.K., the Netherlands, and Germany suggests a peaking around 1970 and a decline thereafter. This tendency is consistent with the U.S. experience. See Tjerk Huppes, The Western Edge: Work and Management in the Information Age (Boston: Kluwer Academic Publishers, 1987), pp. 45-46.
54. Gerry Rodgers and Janine Rodgers, eds., Precarious Jobs in Labour Market Regulation: The Growth of Atypical Employment in Western Europe (Geneva: International Institute for Labour Studies, 1989).
55. "European Parliament Passes Resolution Urging Protection for Part-Time Workers," Daily Labor Report (July 20, 1990), p. A15.

56. The European Commission has drafted various directives concerning contingent workers. See "Draft Atypical Work Directives," European Industrial Relations Review (September 1990), pp. 12-16, 29-32.
57. See *ibid.* and R. Disney and E.M. Szyszczak, "Protective Legislation and Part-Time Employment in Britain," British Journal of Industrial Relations, vol. 22 (March 1984), pp. 78-100.
58. Chris Tilly, Short Hours, Short Shift: Causes and Consequences of Part-Time Work (Washington: Economic Policy Institute, 1990), p. 5.
59. Source: U.S. Bureau of Labor Statistics, Employment and Earnings, vol. 37 (January 1990), p. 201.
60. Francis W. Horvath, "Work at Home: New Findings from the Current Population Survey," Monthly Labor Review, vol. 109 (November 1986), pp. 31-35.
61. European laws are reported in "Survey of Homeworking," European Industrial Relations Review (September 1990), pp. 18-23.
62. For example, see I.M. Rubinow, "Social Insurance" in Edwin R.A. Seligman, ed., Encyclopaedia of the Social Sciences, vol. 14 (New York: MacMillan Co., 1934), p. 136.
63. H. Zoetewij, Indirect Remuneration: An International Overview (Geneva: ILO, 1986), p. 63.
64. John A. Brittain, The Payroll Tax for Social Security (Washington: Brookings Institution, 1972), chapters 2 and 3; Jonathan Gruber and Alan B. Krueger, "The Incidence of Mandated Employer-Provided Insurance: Lessons from Workers' Compensation Insurance," working paper no. 279, Industrial Relations Section, Princeton University, 1990.
65. In an equation predicting total compensation per employee, the ratio of direct pay to total compensation should enter with a negative sign if benefits are add-ons to cost. (The ratio varies inversely with the proportion of pay devoted to benefits). We also tried experiments over the period 1975-87 in predicting the annual percent change in real compensation per employee with the annual percent change in real GDP per employee and the change in the ratio of direct pay to total pay. The results basically suggested that over the 22 countries, compensation per employee moved proportionately with GDP per employee and the shift in the mix of benefits in total compensation had no significant role. For just the 12 EC countries, it was not possible to obtain meaningful predictions due to limited variation and the small sample size.
66. Such effects have been found for the U.S. Social Security system. See Robert A. Moffitt, "Life-Cycle Labor Supply and Social Security: A Times-Series Analysis" in Gary Burtless, ed., Work, Health, and Income Among the Elderly (Washington: Brookings Institution, 1987), pp. 183-220. For evidence of retirement effects of both Social Security and private pensions, see Michael D. Hurd, "Research on the Elderly: Economic Status, Retirement, and Consumption and Saving," Journal of Economic Literature, vol. 28 (June 1990), pp. 565-637, especially pp. 595-606.
67. Henry J. Aaron, Economic Effects of Social Security (Washington: Brookings Institution, 1982), chapter 4; Alicia H. Munnell, "The Impact of Public and Private Pension Schemes on Saving and Capital Formation" in International Social Security Association, Conjugating Public and Private: The Case of Pensions (Geneva: ISSA, 1987), pp. 219-236.
68. Robert J. Barro, "The Ricardian Approach to Budget Deficits," Journal of Economic Perspectives, vol. 3 (Spring 1989), pp. 37-54.
69. Individual schemes are either essentially savings plans (money purchase schemes) in which fixed amounts are put aside and are then available upon retirement, or they are annuities arrangements. Under the latter, for a commitment to pay a certain amount to a financial services firm, the individual receives a commitment of a lifetime monthly income payment beginning at retirement age. While an individual under an annuity scheme may not pre-pay exactly what he/she receives on retirement, in an actuarial sense, annuitants as a group pre-pay for their pensions.

70. None of the relationships on Table 10 show up as statistically significant in linear regressions.
71. John A. Turner and Daniel J. Beller, eds., Trends in Pensions (Washington: U.S. Department of Labor, Pension and Welfare Benefit Administration, 1989), p. 334.
72. Non-insured German pension plans which were not directly invested in the employer held over 40% of their assets in stocks. Source: Turner and Beller, Trends in Pensions, op. cit., p. 334.
73. American experience with financial deregulation illustrates this point. Prior to deregulation, savings and loans and related savings institutions were designated to undertake mortgage lending with the assumption that this would channel more funds to housing. Over 40% of mortgage debt was held by such institutions in the 1970s. By the end of the 1980s, after deregulation, savings institutions held only a little more than a fourth of all mortgage debt. Yet the exit of savings institutions from the mortgage market did not change the yield premium (a little over 1 percentage point) of mortgages as compared with 10-year Treasury bonds. There was no "shortage" of mortgage funds. Put conversely, the previous channeling of savings institution investments into mortgages did not make mortgage money cheaper. As savings institutions exited the mortgage market, other lenders were attracted in. Source: U.S. President, Economic Report of the President 1990 (Washington: GPO, 1990), tables C71, C74.
74. Public systems of pensions and health insurance are reported to be the most popular welfare-state programs across countries. See Harold L. Wilensky et al, Comparative Social Policy: Theories, Methods, Findings (Berkeley: Institute of International Studies, University of California, Berkeley, 1985), p. 18. It might be noted that individuals on welfare in the U.S. are eligible for Medicaid and treatment in local public hospitals.
75. Paul Hecquet, "Development and Role of Occupational Pension Schemes in Europe" in International Social Security Association, Occupational Pension Schemes (Geneva: ISSA, 1984), pp. 5-23; Beth Stevens, Complementing the Welfare State: The Development of Private Pension, Health Insurance, and Other Employee Benefits in the United States (Geneva: International Labour Office, 1986).
76. Ninety-two percent of such employees were reported as covered by employer medical plans in 1989. Source: U.S. Bureau of Labor Statistics, Employee Benefits in Medium and Large Firms, 1989 (Washington: GPO, 1990), p. 4. The survey covers private, nonfarm establishments with 100 or more employees.
77. U.S. Bureau of the Census, Receipt of Selected Noncash Benefits: 1985 (Washington: GPO, 1987), table 17; U.S. Bureau of Labor Statistics, Labor Force Statistics Derived from the Current Population Survey, 1948-87 (Washington: GPO, 1988), p. 185.
78. Harold L. Wilensky, The Welfare State and Equality (Berkeley: University of California Press, 1975), pp. 63-65.
79. Fred K. Foulkes, Personnel Policies in Large Nonunion Companies (Englewood Cliffs, N.J.: Prentice-Hall, 1980), chapter 11.
80. Max Horlick, "The Relationships Between Public and Private Pension Schemes: An Introductory Overview," Social Security Bulletin, vol. 50 (July 1987), pp. 15-24.
81. Chantal Euzeby, "Non-Contributory Old-Age Pensions: A Possible Solution in the OECD Countries," International Labour Review, vol. 128 (1989), p. 26.
82. Giovanni Tamburi and Pierre Mouton, "The Uncertain Frontier Between Private and Public Pension Schemes," International Labour Review, vol. 125 (March-April 1986), pp. 135-137.
83. Turner and Beller, Trends in Pensions, op. cit., p. 328.

The Commission of the EC produced estimates for member countries using a worker with two times national pay. (Estimates were made for average pay and below-average, but did not include any for private pension receipts). The EC data - which applied to 1985 - do not readily accord with the

Towers Perrin estimates for reasons which are unclear. See Commission of the European Communities, "Old Age Pensions: Net Benefits Compared to Previous Net Earnings," Volume A: Overall Report, unpublished document V/1211/1/86-EN, December 1987.

85. P.R. de Vlam, "Transfer Within a Country, With Express Reference to the Netherlands," working paper for Directorate-General V, September 1990. Mr. Rolf Jacob kindly provided the authors with this paper.

86. Douglas A. Wolf and Frank Levy, "Pension Coverage, Pension Vesting, and the Distribution of Job Tenures" in Henry J. Aaron and Gary Burtless, eds., Retirement and Economic Behavior (Washington: Brookings Institution, 1984), pp. 23-61.

87. Zvi Bodi, "Pensions as Retirement Income Insurance," Journal of Economic Literature, vol. 28 (March 1990), pp. 31-34.

88. Michael O'Higgins, "Public/Private Interaction and Pension Provision" in Martin Rein and Lee Rainwater, eds., Public/Private Interplay in Social Protection: A Comparative Study (Armonk, N.Y.: M.E. Sharpe, Inc., 1986), p. 127.

89. Clark Kerr, "Social and Economic Consequences of the Pension Drive" in National Industrial Conference Board, Handbook on Pensions (New York: NICB, 1950), p. 85.

90. Arthur M. Ross, "Do We Have a New Industrial Feudalism?," American Economic Review, vol. 48 (December 1958), pp. 914-915.

91. For a review, see Hugh Folk, "Private Pensions and Labor Mobility" in U.S. Joint Economic Committee of Congress, Old Age Income Assurance, Part IV: Employment Aspects of Pension Plans (Washington: GPO, 1967), pp. 132-163.

92. Alicia H. Munnell, The Economics of Private Pensions (Washington: GPO, 1982), p. 175.

93. Alan L. Gustman and Thomas L. Steinmeier, "Pensions, Efficiency Wages, and Job Mobility," working paper no. 2426, National Bureau of Economic Research, 1987; Izzet Sahin, Private Pensions and Employee Mobility: A Comprehensive Approach to Pension Policy (New York: Quorum Books, 1989).

94. Olivia S. Mitchell, "Worker Knowledge of Pension Provisions," working paper no. 2414, National Bureau of Economic Research, 1987.

95. Laurence J. Kotlikoff and David A. Wise, The Wage Carrot and the Pension Stick (Kalamazoo, Mich.: Upjohn Institute, 1989).

96. U.S. Congressional Budget Office, Federal Insurance of Private Pension Benefits (Washington: GPO, 1987), pp. 44-45.

97. Information drawn from Howard Foster, Employee Benefits in Europe and USA (London: Longman, 1990).

98. Bill Pool, The Creation of the Internal Market in Insurance (Luxemburg: EC, 1990), pp. 67-68. The notion of cross-border investment of pension assets is closely related to the effort of the EC to create a single financial market. See Dominique Servais, The Single Financial Market (Luxemburg: Office for Official Publications of the European Communities, 1988).

99. U.S. Bureau of the Census, Statistical Abstract 1990, op. cit., p. 100.

100. A simple regression of the health expenditures/GDP ratio (HGDP) in 1987 across the 12 EC countries and the U.S. against (1/1000 times) per capita GDP in U.S. dollar purchasing-power-parity terms (GCAP) and a dummy = 1 for the U.S. (DUMUS) produces the following result:

$$\text{HGDP} = 4.97^{**} + 2.82^{**} \text{ DUMUS} + .19^{*} \text{ GCAP} \quad \text{adjusted R-squared} = .61$$

* Significant at the 10% level

** Significant at the 5% level

Source: See Table 15.

101. Organisation for Economic Co-operation and Development, Health Care Systems in Transition: The Search for Efficiency (Paris: OECD, 1990), p. 10.

102. Regressions of life expectancy against per capita health spending and/or per capita GDP reveal no significant relations.

103. For the 11 countries for which data are available on infant mortality (INF) on Table 15, regressions produce the following results:

$INF = 15.47^{**} - 7.58^{**} HCAP + 11.06^{**} DUMUS$ adjusted R-squared = .52

$INF = 19.40^{**} - 8.95^{**} GCAP + 8.02^{**} DUMUS$ adjusted R-squared = .79

$INF = 19.95^{**} - 1.12^{**} GCAP + 6.58^{**} DUMUS + 2.42 HCAP$
adjusted R-squared = .78

** = Significant at the 5% level

where HCAP and GCAP are, respectively, per capita health expenditures and GDP in U.S. dollars (times 1/1000) and DUMUS is a dummy = 1 for the U.S.

104. Employee Benefit Research Institute, International Benefits: Part One - Health Care, issue brief no. 106, September 1990, p. 20.

105. U.S. Department of Health and Human Services, Health Care Financing Administration, Health Care Financing Review: 1989 Annual Supplement (Washington: GPO, 1989), p. 38.

106. HMOs are providers who contract to supply health services for a fixed monthly fee, regardless of actual usage. They thus have an incentive to hold down costs and "excessive" service utilization. Data on coverage from U.S. Bureau of the Census, Statistical Abstract 1990, op. cit., p. 100.

107. "Second opinions" involve having more than one physician diagnose the need for an expensive procedure. "Managed care" refers to systems of careful scrutiny of usage of health services, sometimes provided by outside contractors for employers. PPOs (preferred provider organizations) are groups of doctors and other health-service providers) who agree to offer lower fees to those covered by a particular insurance plan.

108. Small employers may entail greater administrative cost per employee covered than large employers. In addition, potential adverse selection problems arise; an employer might seek coverage knowing that particular employees had potentially costly health conditions.

109. American law requires employers to offer continued health-care coverage to laid-off workers. But the employee must pay for the coverage (and in after-tax income), which can be difficult for someone who has just lost a job.

110. Such expenditures include payments for non-public schemes of insurance, retirement, guaranteed remuneration, unemployment payments, family allowances, and "other" payments. In Britain, pension spending is likely to loom large in this category.

111. It is not possible to obtain American data by the same industrial classification and with the same detailed information used in the table for the three European countries. However, data from the U.S. Chamber of Commerce survey and other data sources for the U.S. produces the same general associations.

² Christopher D. Daykin, "United Kingdom Pension Statistics," paper given at a U.S. Department of Labor national conference on Private Pension Policy and Statistical Policy, February 21-23, 1990, p. 26.

113. Great Britain, Office of Population Censuses and Surveys, General Household Survey, 1987 (London: HMSO, 1989), pp. 145-146.
114. Barry McCormick and Gordon Hughes, "The Influence of Pensions on Job Mobility," Journal of Public Economics, vol. 23 (February/March 1984), pp. 183-206.
115. The balance of workers are reported to be under plans using "other" formulas, presumably flat-rate or life-time earnings plans. Source: National Association of Pension Funds, Annual Survey of Occupational Pension Schemes, 1989 (London: NAPF, 1990), pp. 32, 35.
116. Great Britain, Office of Population Censuses and Surveys, General Household Survey, op. cit., pp. 149-150.
117. Great Britain, Office of Population Censuses and Surveys, General Household Survey, op. cit., p. 82-83.
118. Guy Standing, Unemployment and Labour Market Flexibility: The United Kingdom (Geneva: ILO, 1986), chapter 7.
119. Great Britain, Office of Population Censuses and Surveys, General Household Survey, op. cit., pp. 33-40.
120. The material that follows draws heavily from Leslie Hannah, Inventing Retirement: The Development of Occupational Pensions in Britain (New York: Cambridge University Press, 1986).
121. Hannah, Inventing Retirement, op. cit., p. 13.
122. Hannah, Inventing Retirement, op. cit., p. 29.
123. Jeffrey Hyman and Tom Schuller, "Occupational Pension Schemes and Collective Bargaining," British Journal of Industrial Relations, vol. 22 (November 1984), pp. 289-310.
124. Hannah, Inventing Retirement, op. cit., p. 40.
125. Hecquet, "Development and Role of Occupational Pension Schemes in Europe," op. cit., pp. 11-15.
126. Joseph L. Cohen, "Health Insurance" in Edwin R.A. Seligman and Alvin Johnson, eds., Encyclopaedia of the Social Sciences, vol. 7 (New York: MacMillan, 1932), pp. 298-299.
127. Patrick Hennessy, "Public Opinion About the Social Security System in the United Kingdom: Continuity and Change 1961-83," International Social Security Review, vol. 40 (March 1987), pp. 248-260; Ivor Crewe, "Has the Electorate Become Thatcherite?" in Robert Skidelsky, ed., Thatcherism (Cambridge, Mass.: Basil Blackwell, 1988), p. 43.
128. Great Britain, Central Statistical Office, Annual Abstract of Statistics, 1990 Edition (London: HMSO, 1990), pp. 67, 109.
129. "Treatment Suspended," Economist, June 16, 1990, pp. 61-62.
130. Richard Hemming and Russell Harvey, "Occupational Pension Scheme Membership and Retirement Saving," Economic Journal, vol. 93 (March 1983), pp. 128-144.
131. Hannah, Inventing Retirement, op. cit., pp. 141-142.
132. The growth of profit sharing and share ownership schemes in the 1980s differed from previous past waves of such programs. Earlier waves had been associated with robust labor markets rather than the soft labor market that characterized much of the 1980s. See Michael Poole, "Factors Affecting the Development of Employee Financial Participation in Contemporary Britain: Evidence from a National Survey," British Journal of Industrial Relations, vol. 26 (March 1988), pp. 21-36.

133. Richard Freeman and Jeffrey Pelletier, "The Impact of Industrial Relations Legislation on British Union Density," British Journal of Industrial Relations, vol. 28 (July 1990), pp. 141-164.

134. The description that follows relies heavily on Great Britain, Department of Social Security, "Occupational and Personal Pension Provision in the United Kingdom," paper prepared for a U.S. Department of Labor international conference on Private Pension Policy and Statistical Analysis, February 21-23, 1991.

135. Often occupational pension plans go beyond the minimum required for contracting out of SERPS. The employer is not obligated to contribute beyond the minimum to a contracted-out personal pension, however, and many will not do so.

136. For example, "Pick Your Own Pension," Which? (October 1987), pp. 87-87.

137. This rule also applies to pension plan terminations. As in the U.S., there were complaints of termination of overfunded plans as part of corporate takeovers or otherwise. Terminations are not forbidden but the price correction of promised benefits increases the liability of the plan and makes it less likely to appear overfunded. Moreover, overfunded plans are required to increase benefits, provide contribution holidays, or refund subject to tax. The objective is to keep overfunding at or below 105%.

138. It might be noted that British industrial tribunals take account of lost pension rights that would have accrued in the cases of unjust dismissals. See Great Britain, Industrial Tribunals, Compensation for Loss of Pension Rights (London: HMSO, 1990).

139. Great Britain, National Audit Office, The Elderly: Information Requirements for Supporting the Elderly and Implications of Personal Pensions for the National Insurance Fund (London: HMSO, 1990).

140. Jean-Jacques Dupeyroux, Droit de la Sécurité Sociale, 11th ed. (Paris: Dalloz, 1988), p. —.

141. The definition of employee used regarding coverage is broad and includes top-level executives among others. See M. Despax and Jacques Rojot, Labor Law and Industrial Relations in France (Dordrecht: Kluwer, 1987), p. —.

142. Jacques Rojot, "France" in Myron J. Roomkin, ed., Managers as Employees (New York: Oxford University Press, 1989), pp. 202-227.

143. One study for 1983 produced the following ranges of replacement by occupational group:

Wage-earners (cadres).....	43-67%
Wage-earners (other).....	70-76%
Non-tenured civil servants.....	51-65%
Civil servants.....	68-75%
Self-employed businessmen.....	20-50%
Self-employed craft workers.....	38-68%
Physicians.....	31-64%
Self-employed farmers.....	20-170%

See Centre d'Étude des Revenus et des Coûts, Comparaison des Régimes de Sécurité Sociale (Paris: La Documentation Française, 1984), p. —. A more recent study of replacement rates suggested the following for wage earners only:

Top manager.....	50.2%
Cadres.....	53.8%
Non-cadres.....	69.5%

See B. Renard, Les Retraites: Régimes et Produits (Paris: Editions ESKA, 1990), p. —. These estimates are somewhat below those of Table 13 but illustrate the tendency of replacement rates to fall as earnings rise. Renard's estimates are roughly in line with those appearing in Wyatt Co., 1990 Benefits Report: Europe, U.S.A. (Brussels: Wyatt, 1990), p. 79.

144. Because the French system tends to discourage enterprise-based benefits, the status of some insurance company offerings is enveloped in legal controversy. See Dupeyroux, Droit de la Sécurité Sociale, op. cit., p. —; Jean-Jacques Dupeyroux, "Avant-Propos," Droit Social, no vol. (April 1986), pp. 277-279; J. Barthélémy, "Le Droit du Travail et l'Évolution de la Protection," Droit Social, no vol. (April 1986), pp. 305-311.
145. ARRCO, for example, will give past service credit to employees of firms which increase their contributions to the system.
146. Hewitt Associates, Sample Employee Benefit Specifications, France, August 1990 (Lincolnshire, Ill.: Hewitt, 1990).
147. There are differing views on this point. See Denis Kessler, "L'Avenir des Retraites," Économie et Statistiques, vol. — (June 1989), p. —; J. Chaperon, "Les Régimes Complémentaires Français dans le Contexte Européen," paper presented at the Séminaire sur les Mutations du Droit Social, Université de Paris I, Panthéon Sorbonne, 1991.
148. The social security systems of East and West Germany were broadly similar with the exception of unemployment insurance (which didn't exist in the east on the grounds that full employment was guaranteed. Source: U.S. Department of Health and Human Services, Social Security Programs Throughout the World - 1977, op. cit., pp. 92-95. A complicating factor, however, was the role played by the official unions in East Germany in administering the system.
149. Bernard Casey, Rüdiger Dragendorf, Walter Heering, and Gunnar John, "Temporary Employment in Great Britain and the Federal Republic of Germany: An Overview," International Labour Review, vol. 128 (4:1989), pp. 449-465; Rainer Dombois, "Flexibility by Law? The West German Employment Promotion Act and Temporary Employment," Cambridge Journal of Economics, vol. 13 (1989), pp. 359-371.
150. "West Germany: Collective Bargaining in 1989," European Industrial Relations Review, June 1990, pp. 21-24.
151. Willi Goebel, "Reform of Health Services in the Federal Republic of Germany," International Social Security Review, vol. 42 (4:1989), p. 462.
152. Of the 12 firms used by Hewitt Associates to illustrate sample German employee benefits, only one had a supplemental medical program. Source: Hewitt Associates, Sample Employee Benefit Specifications, West Germany, August 1990 (Lincolnshire, Ill.: Hewitt, 1990).
153. Lorna M. Dailey, "Private Pension Statistic in Nine Countries" in Turner and Beller, Trends in Pensions, op. cit., p. 292.
154. Norbert Rössler, "—", paper presented to the International Conference NAPF/EFRP, West Berlin, October 8-11, 1989.
155. Turner and Beller, Trends in Pensions, op. cit., p. 338. However, there is provision for salary reduction plans similar to American 401k plans and which are similar to defined-contribution programs.
156. Swiss Life, Employee Benefit Reference Manual, 1990 (Zurich: Swiss Life, 1990), p. 161.
157. During the period 1975-1989, the PSV has made pension payments to about 140,000 retirees as the result of 3,800 bankruptcies. Source: Swiss Life, Employee Benefit Reference Manual, 1990, op. cit., p. 170. Contribution rates have varied substantially as the result of PSV experience. Rates have been as high as .69% of payroll in 1982 and as low as .06% in 1989. Source: Foster, Employee Benefits in Europe and the U.S.A., op. cit., p. 212.
158. Michael O'Higgins, "Public/Private Interaction and Pension Provision" in Martin Rein and Lee Rainwater, eds., Public/Private Interplay in Social Protection: A Comparative Study (Armonk, N.Y.: M.E. Sharpe, Inc., 1986), pp. 127-128.

159. Irwin Tepper, "Taxation and Corporate Pension Policy," Journal of Finance, vol. 36 (March 1981), pp. 1-13.