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A COMPARATIVE STUDY OF THE PORTUGUESE AND SPANISH LABOUR MARKETS

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ABSTRACT

Spain faces the highest unemployment rate among the European Union countries (22.2%), and Portugal one of the lowest (7.3%). However, superficially, these two countries share common labour market features: they both have the most stringent job security rules in the OECD, the architecture of their bargaining systems appears identical, and the generosity of their unemployment insurance systems seems, after 1989, roughly comparable. We address this puzzle by providing a systematic comparison of the Portuguese and Spanish labour market institutions, in particular, job security, unemployment benefits and the system of wage bargaining. In addition, we empirically analyse the Spanish and Portuguese unemployment out-flows and conditional wage distributions using micro data for both countries. We find that there are differences in unemployment benefits (non-existent in Portugal until 1985, and less generous nowadays), differences in wage flexibility (wage floors by category established by collective agreements are set at a lower relative level in Portugal), and, in practice higher firing costs in Spain. We conclude that a key factor in explaining the difference in Portuguese and Spanish unemployment rates since the late seventies is the wage adjustment process. Such process would have been less sustainable without generous benefits, but given the way union rules developed in Spain, we do not regard their role in the wage setting process as just a consequence of the large unemployment benefits.

I. INTRODUCTION

In this paper we provide a systematic comparison of the Portuguese and Spanish labour markets during the 1980s and 1990s. We do so by firstly looking in detail at the differences between the labour market institutions of the two countries, and, secondly, by empirically analysing the Spanish and Portuguese unemployment outflows and wage distributions using comparable individual-level data for both countries.

Aside from their similarities in history and culture, the labour market institutions of Portugal and Spain are apparently more similar than those of any other pair of European countries. Yet, their unemployment rates are dramatically different. In both countries the unemployment rate began to increase during the seventies, rising to around 7% in 1978. During the years 1978-1985, the unemployment rate rose on average at a much higher speed in Spain, to over 20%, whereas in Portugal it reached just over 10%. Since then the profile of both series has been very similar but at very different levels.[1]

There are few studies that address this puzzle, and so far there has not been a definite explanation of the factors that are at the root of such different unemployment performance. Blanchard and Jimeno (1995) conclude that the only difference between the two countries appears to be the unemployment benefit system but that was more so in the past than at present.

In this paper we argue that behind the apparent similarity in the various aggregate indicators of labour institutions employed in cross-country comparisons, there are significant institutional differences between the two countries. Finding them should be helpful for our understanding of unemployment in general, beyond the specific features of Portuguese and Spanish unemployment.

[1] For some selected labour market indicators see Table 1A.

There has recently been an important surge of cross-sectional and panel data cross-country studies with the aim of investigating empirically the determinants of 'average' (or *structural*) unemployment. In those studies Portugal and Spain appear as outliers. They are largely unable to explain, for example, why in 1996 the unemployment rate in Portugal was 7.3%, while in Spain it was 22.2%. Even at the peak of the cycle during the second half of the 1980's (with GDP growth reaching 5.6%) unemployment in Spain was always over16%. This situation illustrates some of the limitations of the existing cross-country comparisons based on aggregate data and very stylised institutional indicators.

The theoretical framework behind such empirical cross-country studies is a simple model of equilibrium in the labour market as in Layard et al. (1991). In these studies attention is paid to the relationship between the unemployment rate (usually some average across a number of years to eliminate the effects of the business cycle) and the labour market institutions in the different countries as proxied by an array of measures and indicators.

As an illustration of the results in these studies, we report in Table 1B the estimates presented in Nickell (1997), together with the values of the explanatory variables for Portugal and Spain. In his conclusions, among the labour market institutions, Nickell stresses the role of the generosity of benefits and the extent to which wages are determined collectively (coupled with the degree of employers and unions co-ordination). Spain could be thought to fit the observed statistically significant effects, except for its low degree of union density (11.0%). But strikingly Portugal looks pretty similar as well, although coupled with a much lower unemployment rate. One surprising difference is its much higher union density (almost three times the value for Spain) which, according to the estimates, should be generating more unemployment, not less!

On the same lines, Scarpeta (1996) specifies an equation in which cross-country differences in unemployment rates in the OECD are explained using a small

number of explanatory variables: unemployment benefits, job security, union density, and employer co-ordination. However, despite the goodness of fit of Scarpeta's specification, the magnitude of the regression residuals for Portugal and Spain remained very large (the two largest country-specific effects). In fact, the estimated model would severely underestimate the Spanish unemployment rate and overestimate the Portuguese one.

International studies based on country-level data suffer from various limitations due to aggregation. In the first place, when employing generic quantitative indicators of a possibly complex phenomenon, the outcome may be misleading. For example, the OECD 31.8% union density measure for Portugal is basically due to the fact that union membership is close to 100% in sectors where unions have the monopoly of providing a health support system. Furthermore, country indicators frequently take the form of relative rankings whose use in linear regression models is suspect. More importantly, it is often difficult to achieve agreement on these rankings, and the disagreements tend to have considerable implications on the results. An example is the debate between Bruno and Sachs (1985) and Calmfors and Driffil (1988) on the linear vs. non-linear nature of the relationship between centralised institutions and performance, which hinges on the different rankings of certain economies (see Metcalf, 1994).

Another problem of working with aggregate data is that aggregation may aggravate the endogeneity of explanatory variables. Labour market institutions and policies are often taken as exogenous in cross-country studies of the determinants of unemployment, but the possibility of reverse causation is always present (Lazear, 1990).

Finally, the use of aggregate data as opposed to individual data may mask interactions between individual and institutional characteristics, giving rise to biases or the cancellation of interesting effects. Since handling individual data for many countries at a time may not be feasible, several recent studies have targeted two or

three countries for close comparisons.[2] In this regard, this paper shows the usefulness for understanding the structural aspects of unemployment of a close comparison of the Portuguese and Spanish labour markets, using detailed institutional information and individual microdata from the two countries.

Following the Layard et al. (1991) model, in this paper we focus on the functioning of the labour market institutions. Although the role of shocks cannot be disregarded, the emphasis of the paper is on institutions, since Portugal and Spain have been hit by broadly similar shocks during the last twenty years (Blanchard and Jimeno, 1995, Castillo, Dolado, and Jimeno, 1998), and similar shocks combined with differences in institutions may lead to very different unemployment outcomes (see Blanchard, 1999, and Blanchard and Wolfers, 1999). In particular, we closely compare job security regulation, the treatment of the unemployed (namely with respect to unemployment benefits) and the system of wage bargaining.

Furthermore, we use microdata to study the impact of the two main institutions thought to affect unemployment, the benefit system and the system of wage setting, on individual unemployment behaviour and wage determination. In particular, we study flows out of unemployment by estimating an econometric transition model for each country to measure and compare the current effects of the different factors affecting the probability of leaving unemployment. The data come from the rotating panel of the Labour Force Survey in each country. We also estimate individual wage equations and regressions for the conditional variance of individual wages in order to analyze differences in returns and within-group dispersion between the two countries. The data used come from a different Earnings Survey in each country.

The paper is organised as follows. In Section II we start by comparing the labour market legislation and labour market institutions in the two countries. In Section III we offer a comparative analysis of participation, employment, and

[2] For some recent labour market studies focussing on two-country comparisons using micro data see

unemployment composition during the last two decades. In Section IV we study flows out of unemployment using Portuguese and Spanish micro-data, and report the estimates of the econometric transition model for each country. The comparison of wage distributions between the two countries is presented in Section V as well as the estimates of the individual wage equations and regressions for the conditional variance. Finally, Section VI contains the conclusions of the paper.

for example Flinn (1997), Millner and Sieg (1997) and Abowd, Kramarz, and Margolis (1999).

II. INSTITUTIONAL FEATURES

1. Employment Protection

Theoretically, higher firing costs have an ambiguous effect on overall unemployment since they increase unemployment duration but reduce turnover. Nonetheless, to have a complete picture of the functioning of the labour markets in Portugal and Spain, a comparison of employment protection in both countries is useful.

Employment protection regulations include those aspects that determine under which conditions the termination of contracts may take place. Tables A1, A2 and A3 in the appendix show that the legal procedures to be followed in each country are quite similar. Specifically, dismissal is tied to the existence of causes which the employer must justify. Except in the case of disciplinary dismissal (a serious breach of contract by the employee), the employer should provide the employee with severance payment amounting to 20 days' wages per year worked, with a maximum of 12 monthly payments in Spain, this being one month per year worked in Portugal where, moreover, a minimum of three monthly payments is stipulated and no maximum.

Employees in both countries may appeal against the decision to terminate contract. But the incentives to do so differ greatly. In Portugal, the only possible improvement for the employee is the possibility of reinstatement, which means that, in practice, appeals are not usually lodged with the courts. In Spain, however, there is the possibility that the dismissal may be declared unfair by the courts. In such case, which arises when the firm is unable to provide a sufficient justification for the cause of the dismissal, the cost of severance payments rises to 45 days per year worked with a maximum of 42 monthly payments[3]. The difficulty of justifying before the courts

[3] The latest labour market reform in June 1997 has reduced severance payment for new contracts to 33 days per year worked with a maximum of 24 monthly payments, with the exception of employees aged between 30 and 45 who have lost permanent jobs and have not been unemployed for longer than one year,

the cause of the dismissal has, in practice, led in Spain to severance payments equivalent to those for unfair dismissal which far exceed those in Portugal[4]. In fact, 80% of the individual dismissal cases settled by the courts in 1996 resulted in a ruling favourable to the employee, or were resolved via conciliation. Only in 20% of the cases was the ruling favourable to the firm. Given these difficulties, most cases (78%) are resolved before legal proceedings begin. This is done via an agreement between the employee and the firm in which severance payments close to those for unfair dismissal are agreed, this being the most likely alternative in the event of arriving at legal proceedings. This situation may change after the recent labour reform introduced in June 1997. The reform has extended the causes that may give rise to an individual dismissal, and now includes the possibility of staff adjustments with a view to overcoming problems relating to a lack of competitiveness. Insofar as the bulk of dismissals now become "fair" ones following this reform, the firing costs associated with permanent-contract employment in Spain will tend to be less than those prevailing in Portugal, as is reflected in Figure A.1.

As for collective dismissals, the legislation in the two countries is very similar. The most important point here is the need for administrative authorisation in both countries. In view of this requirement, dismissal may in no circumstance be declared unfair. Nonetheless, in the case of Spain administrative authorisation is only given when there is agreement between the company and the unions. And such an agreement is occasionally reached by increasing the amount of the severance payments. Collective in proportion to total dismissals are a minority in both countries: 14.5% in Portugal and 18.3% in Spain for 1996[5].

At the end of 1984, in an attempt to ease employment protection, new

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for whom the severance payment remains as before.

[4] These difficulties arise from the fact that dismissals are not subject to a simple formal control; judges must delve into the matter, analysing whether there are economic, technological, organisational or production-related causes. Economic causes are justified in the case of a current crisis of the firm, which must be substantiated by audit and other technical reports. In practice, the firm must have been recording continuous losses for a period of about two years. Technological, organisational or production-related causes are justified on the basis of the need to shed staff to ensure the future viability of the firm and of employment by means of a more suitable organisation of resources.

fixed-term contracts with lower firing costs than the permanent contracts were introduced in Spain, for all activities, whether temporary or not, and eliminating all previous restrictions. In contrast, the legislative changes that occurred in Portugal in 1989 made fixed-term contracts more restrictive while maintaining severance pay disbursements similar for temporary and permanent contracts.

In international comparisons, Portugal is conventionally classified as a country with stricter employment protection laws than Spain[6], given the similarity of the administrative procedures in the two countries and the higher cost of compensation for dismissal in Portugal (one month per year worked). In practice, employment protection for permanent employees is greater in Spain. The reason for this is the difficulty of justifying the cause of dismissal before the courts, which encourages firms to agree on severance payments to their employees equivalent to those for unfair dismissal (45 days per year worked).

The recent labour market reform in Spain in June 1997 may entail a significant reduction in severance payments, if the valid reference truly turns out to be fair dismissal, which has a lower associated cost than that prevailing in Portugal (20 days per year worked).

2. Unemployment Benefits

There have been important differences between Portugal and Spain in the unemployment benefits regulations during the eighties and nineties. In Spain the generosity of benefits increased (1984, 1989) and was subsequently reduced (1992) in order to counter the expansion of spending (see García-Perea and Martín, 1996). Between 1980 and 1993, unemployment coverage in Spain, driven by the growth of assistance benefits, virtually doubled and rose to around 70% (see Figure 8). In Portugal, before 1985 only unemployment assistance benefits existed covering less than 10% of the jobless, and in 1985 unemployment insurance benefits were

[5] Figures from the Labour Force Survey for Portugal and the Ministry of Labour in Spain.

introduced. In 1989 eligibility criteria for the insurance benefit were eased and the maximum duration period was increased, both for insurance and for assistance benefits. The immediate outcome was a sharp increase in coverage, which tended to widen as a result of the economic recession to rates of around 40 to 50 percent maximum. Conversely, in Spain, there was an opposite-running movement following the legislative change in 1992 which was aimed at reducing the replacement ratio and tightening eligibility criteria. This was responsible for part of the reduction in the coverage rate by about 15 percentage points, from 70% to almost 55%, still higher than that prevailing in Portugal.

Tables A4 and A5 in the appendix draw together the eligibility conditions, maximum duration and replacement ratio of the unemployment insurance and assistance benefits. It may be concluded from the comparison between both countries that the qualifying conditions in Portugal for the unemployment insurance benefit are still stricter. Beneficiaries are required to have been contributing for at least 18 months during the past two years, whereas in Spain the requirement is 12 months' contributions over the past six years.

The comparison is less direct as regards the maximum duration of the insurance benefit. In Spain, this is linked to years of service in the job, whereas in Portugal it depends on the age of the unemployed worker. As we can see from Tables A6.1 and A6.2, the insurance system is seen to be more generous in Portugal, as from 1989, for short years-of-service periods (between 18 months and three years), with generosity increasing in step with the age of the unemployed worker. On the contrary, the system is more generous in Spain for lengthy years-of-service periods, except for workers aged 50 or over. Specifically, as from 6 years of completed service, the insurance benefit is more generous in Spain for all workers under 50 years of age.

In both countries, to qualify for assistance benefits, the unemployed are required not to have an income higher than a certain percentage of the minimum

[6] See Grubb and Wells (1993) and OECD (1999).

wage, the replacement rate being set in terms of the minimum wage. Generally, assistance benefits are considerably more generous in Spain when the unemployed worker has family responsibilities (see Tables A6.1 and A6.2).

The replacement ratio in Spain (70%) is higher than in Portugal (65%) during the first six months' benefit, although the opposite is the case as from the seventh month. Although the generosity of the level of benefits is usually only judged in terms of the replacement ratio, another relevant aspect when assessing the generosity of unemployment benefits, may be the level of the previous wages when those are near subsistence levels. As we shall see in the next section, the distribution of low wages shows notable differences in both economies. Generally, the level of the average or median wage in Portugal is relatively low compared with Spain. Furthermore, as we could see in the wage distributions in Figure 17, the average benefit paid is higher up on the distribution in Portugal (25 percentile) as compared to Spain (10 to 15 percentile) This may reflect the fact that individuals receiving benefits in Portugal used to earn wages higher up in the distribution, as compared with Spain. Furthermore, if we compare the individual characteristics of the unemployed[7] according to benefit receipt, the most striking figure is the very high proportion of those aged 45 to 64 among those receiving benefits in Portugal (43% of those receiving, compared to 19% of those not receiving). This is the group for which unemployment benefits in Portugal are the most generous.

Such a share of older people among those receiving benefits is very high even compared to Spain where younger people are less likely to receive benefits because they are more likely to be on short temporary contracts. Currently in Spain, most of those who do not achieve benefit entitlement are people who previously held a temporary contract. The widespread use of temporary contracts is an additional reason for the reduction in the unemployment benefits coverage rate in Spain since the end of the 1980s.

[7] We consider here unemployed up to 17 months unemployment.

In conclusion then, the generosity of unemployment insurance exhibited important differences prior to the nineties, when the benefits system in Portugal was virtually non-existent. In Spain, by contrast, the replacement rate was up to 80% against a background of progressively widening coverage. Since the start of the nineties, both coverage and the replacement rate have drawn notably closer. However, there are two factors which mean that the system is generally still more generous in Spain. First, the entitlement conditions continue to be stricter in Portugal and, second, the wages used to calculate the benefit amounts are significantly higher in Spain.

3. Collective Bargaining

Although the regulations governing collective bargaining are very similar, in practice Portugal shows significant wage flexibility compared to Spain.

In both countries a minimum wage is set each year by law. Additionally collective bargaining agreements set a starting wage for each of the occupational categories established in their agreement, which ultimately act as minimum wages. However, an important difference here between Portugal and Spain is that these wage floors by categories are set at a much lower relative level in Portugal, giving the employer much more room for manoeuvre than in Spain. In fact, there is evidence that actual wages significantly exceed industry-wide agreements in Portugal (see Aperta, Moreira and Murteira, 1994) but not in Spain. Dolado, Felgueroso and Jimeno (1997) compare agreed and actually paid wages in Spain and they conclude that agreed wages are binding for unskilled and semi-skilled workers.

In Portugal, the representation of trade unions and, therefore, their ability to negotiate agreements depends on the level of trade union membership. The trade-union structure is characterised by a large number of unions acting in an uncoordinated fashion. Both these factors weaken the unions' bargaining power relative to the employers. Another aspect which limits the power of the unions is the

fact they depend for their financing on the contributions of their members and membership is relatively low (31.8% in 1990 according to OECD figures). The bargaining process terminates in an agreement, which automatically applies to all the workers in the sector, including those who are not members of trade unions and those employed by firms which have not participated in the collective bargaining. The existence of this clause helps explain the current low level of membership. Workers have little incentive to join a trade union and pay membership dues when, in any event, they will benefit from the agreements reached. Furthermore, it guarantees an almost complete coverage for collective bargaining. In Spain, by contrast, the representation of trade unions is completely independent of their membership and depends on the support they obtain in union representative's elections. Another important difference is that once the representation of the trade unions has been determined according to the votes they have obtained in the trade union elections, the law provides that only the most representative trade unions are entitled to negotiate, and an absolute majority is required to reach an agreement. Both factors have led to the disappearance of minority trade unions. In fact, there are two major unions (UGT and CCOO) in Spain, which, moreover, co-ordinate their actions. Each is a confederation of smaller unions that must follow the guidelines set at the national level. The high degree of centralisation and co-ordination of the trade-union structure has helped to strengthen the bargaining power of the unions relative to the employers. Another difference with respect to Portugal which tends to strengthen the power of the trade unions in Spain is the fact that they are financed not only by the contributions of their members, but also out of the state budget according to their representation. As in the case of Portugal, collective bargaining agreements apply automatically to all the workers and firms of the sector, so that the coverage of collective bargaining is also practically complete.

Although the structure of collective bargaining in both countries is very similar, the different representation criteria for unions and the rules governing authority to negotiate an agreement give rise to trade-union structures which tend to limit bargaining power in Portugal while strengthening it in Spain. Furthermore, the

trade-union structure in Portugal hampers the establishment of uniform conditions at the national level. Using roughly similar sectoral monthly wage data for the two countries we find that wage increases across sectors in Spain are more homogeneous than in Portugal. For 1987 and 1988, the coefficient of variation of wage increases is 0.46 and 0.5 for Portugal, and 0.31 and 0.27 for Spain, respectively.

In Portugal wage conditions at the sectoral level are set in terms of *levels*, with unions finding it difficult to set wages above the national minimum wage for low categories. In Spain, by contrast, the greater power of the unions has enabled wage rates under collective agreements to be well above the national minimum wage, compressing the wage distribution (overall and by categories). In practice actual wages tend to coincide with those specified in the collective agreement, especially for the lower and middle occupational categories, firms not having the same room for manoeuvre as in Portugal. Moreover, agreements frequently incorporate a very restrictive interpretation of the wage system by establishing settlements in terms of agreed wage increases which are applied to the different minimum -and relatively high- wages set in each collective bargaining agreement. Indeed, although Spain faces a fragmented collective bargaining structure, in which sectoral agreements at the regional level predominate, high union co-ordination favours the centralisation of wage increases, which are in fact closely related to the CPI. As a result, firms find it very difficult to adapt to the specific circumstances facing them. The automatic application of the conditions in collective agreements to all the firms of the sector is particularly damaging when, as in Spain, maximum conditions are in fact agreed upon instead of minimum. As already mentioned they have restrictive effects on the lower and middle occupational categories and on smaller firms, which generally do not take part in the bargaining process but have to comply with the agreement. In Spain, these rigidities are accentuated by the difficulty of avoiding having to comply with wider-level bargaining. This would require the agreement of the parties at narrower levels, which is difficult to achieve because in the event of disagreement the firms are subject to the wider level agreement. It is even difficult to apply the recently introduced opt-out clause (1994), which was intended to enable firms in financial

difficulty to opt out of the wage regime applicable at wider levels. In practice the opt-out conditions and procedures established have been so stringent that they have neutralised this flexibility mechanism. Frequently three consecutive years of losses are required for a firm to be able to activate the opt-out, which generally refers to wage increases. In Portugal it is not frequent to seek less favourable conditions than the minimum sectoral-wide agreements. Nevertheless, in this case the negotiation will proceed with the intermediation of the Ministry of Employment. These difficulties may explain the low incidence of firm-level collective agreements in both countries, which are possible, only by setting more favourable conditions than their corresponding sectoral agreement. In Portugal this type of agreement is found mainly in public-sector firms.

The much higher wage floors per category agreed at the different bargaining levels in Spain and the resulting more compressed wage distribution reflects partly the greater power of Spanish unions. In countries such as Spain and Portugal where the statutory extension is in force the usual measures of union density are rather unrepresentative, given the little incentive for workers to join a union when, in any event, they are going to benefit from their achievements. Note however, that affiliation is more important for Portuguese unions because their abiliy to negociate depends on membership, although in both countries the statutory extension creates a desincentive to join. According to OECD figures, trade union membership in Spain is lower than in Portugal (31.8% for Portugal and 11% for Spain in 1990), although the figure is on a marked falling trend in both countries. However, in Portugal we have to discount for the fact that union membership is close to 100% in sectors where unions have the monopoly of providing a health support system (banking, insurance, and telecommunications). A different measure of union power would be to use the number of wage earners whose remuneration is covered by collective agreements, but nor is this alternative a realistic approximation to union power in countries where the statutory extension is the norm. According to this measure, coverage in both countries is very high.

Another way of measuring union power is through industrial action. Of all the OECD countries, Spain ranked second after Greece, and at a great distance from the other developed countries, as regards industrial disputes. Furthermore, unlike in the other OECD countries, there was no clear downward trend in industrial disputes in Spain. Moreover, there is evidence that Spanish legislation is not particularly permissive compared with most EU countries (see Milner and Metcalf, 1994). In Spain, days lost due to strikes (deflated by the number of employees) are many times those in Portugal. In 1986, 1990 and 1995 the number of days lost per thousand employees was 136.9, 46.1, and 20.7 for Portugal, and 297.7, 263.2, and 161.35 for Spain, respectively. However few strikes can be associated with both weak or strong unions. To the extent that employers have knowledge of the unions' capacity to strike they can avoid the cost of a strike altogether through adequate wage concessions. Strikes would be just accidents generated by asymmetric information between employers and unions. In this light, the incidence of strikes is not a faithful indicator of union power. Having said this, lack of union membership, poor organisation and weak financial resources may also lead to fewer strikes. To some extent, the main reason for observing a low incidence and duration of strikes in Portugal is not because uncertainty is low, but simply because unions are unable to convince workers to strike.

As for the sources of union power in Spain as compared to Portugal, a number of institutional factors we have described appear to play a significant role: exclusive jurisdiction rules in Spain but not in Portugal; co-ordination among unions is higher in Spain than in Portugal (this is favoured by exclusive jurisdiction); union activities are publicly financed in Spain but not in Portugal. These rules of play were enacted by law in Spain as part of the process of political transition to democracy in the late 70s. They came into existence against a background in which workers' unions were persecuted and their influence was necessarily very limited. So at the time there was not much experience of unionism but only widespread popular support for union rights in general terms. Since then discussion about union models and their implications for welfare and labour market outcomes has been mostly absent from

Spanish public policy debates. At the time, Portugal was also in transition to democracy following the 1974 revolution. The legislative outcome on collective bargaining however was different.

Finally, higher wage settlements in Spain may also reflect differences in employers' associations between Spain and Portugal. This would be the case if employers' associations in Spain reflected the interests of large high-wage paying firms to a stronger degree than in Portugal (due to the massive nationalisation of large firms in Portugal after 1975).

III. COMPARING PARTICIPATION, EMPLOYMENT, AND UNEMPLOYMENT COMPOSITION

1. Labour force participation and employment

In Spain, female participation increased around ten percentage points since the mid-1980's, after a prolonged period of stability. However, Portugal also witnessed such an increase over that period, despite the fact that female participation started at a much higher level than in Spain for all age groups (see Figure 3). Therefore, the different unemployment paths of Portugal and Spain cannot be attributed to differences in female participation between the two countries, not even from the perspective of the 'lump of labour' hypothesis.

On the other hand, in Spain male participation has been declining considerably since the 1970's, as in many other European countries, in contrast to Portugal where there has been a less clear decrease. Therefore, overall, participation in Spain declined until the mid-eighties and has remained more or less constant since 1985, with the decrease in male participation being compensated by the female increase, while in Portugal participation has increased since 1973 (see Figure 2).

Related to these increases in female activity, Spain has experienced a sharp change in the composition of employment which could be thought to generate adjustment problems, particularly unemployment. The increase in the proportion of non-manual employment since 1980 for Spain (0.83% per annum) has been one of the highest of the OECD countries, due to a combination of technological progress and, more importantly, a growing weight of services (see Bover (1997)). However, here again Portugal has experienced an even higher growth in its share of non-manual employment (0.97% per annum). These changes in the demand for labour in both countries have opened up new opportunities for women, who have seen their market wage increase. In both countries they have reacted by increasing their participation and their educational level. Moreover, if we compare the employment shares by

sector (see Figure 4), it is clear that the dismantling of agriculture has been as severe for both countries, the rise in services has been similar, and so too have developments in manufacturing. The share of General Government in the service sector is, nevertheless, higher in Spain, partly due to the development of the regional authorities during the 1980s.

There is one feature of the composition of employment which is markedly different in the two countries, namely the proportion of temporary employees. As we mentioned in Section II, at the end of 1984, in an attempt to reduce employment protection, new fixed-term contracts were introduced in Spain, with lower firing costs than the permanent contracts. This prompted an important increase in employment, and in the proportion of temporary workers (see Figure 5), reaching well over 30% of the labour force. This is almost three times the figure for Portugal where the proportion of temporary work moved between 10% and 13% during the 1990's. As a consequence of the reform, job turnover increased in Spain (see Dolado, García-Serrano and Gómez, 1997).

2. Unemployment composition

We now turn to examine to what extent the characteristics of the unemployed are the same in Spain and Portugal. By sex, the unemployment rate is evenly split in both countries. Before the mid-1980's in Spain, and the early 1990's in Portugal, female shares in unemployment rates in the two countries stood at a much higher level (see Figure 6)[8]. Since then, male and female rates have been very similar, with the female unemployment share being continuously slightly higher in Portugal, while in Spain for some of the 1990's male unemployment in fact exceeded female joblessness.

[8] This convergence of unemployment rate shares by sex observed in Figure 6 may be due in part to the spectacular increase in non-manual employment observed in both countries during those periods, which was favourable to women. However, there were methodological changes in the Labour Force Surveys in the two countries precisely at the periods of change. Nevertheless, the Spanish data are homogeneous

By age (see Figure 7), in both countries young people (aged 20 to 29) account for most of the unemployment, although their share in Spain is somewhat larger (41.6% compared to 36.3%). Nevertheless, it is worth noting that in Spain their share has been decreasing since the mid-eighties, probably due to the introduction of temporary contracts. The very young (up to 19) have seen their share decrease to the lowest level (less than 10%) both in Portugal and in Spain, probably as a result of extended schooling. The most striking fact that emerges from looking at the unemployment shares by age has been the swift rise in the proportion of unemployed aged 45 to 64 in Portugal from 1989.

There is one important way in which, until recently, the situation of the unemployed has been very different in Portugal as compared to Spain, and this is in the receipt of unemployment income. Indeed, until 1985 the unemployment benefit coverage in Portugal was very low, well below the Spanish figures (see Figure 8). Furthermore, even at present eligibility conditions in Portugal are stricter, and the replacement ratio is less generous during the first 6 months than in Spain. This difference in generosity would be even more pronounced if it were taken into account that wages are lower in Portugal, as we shall argue below. Another significant difference is that in Spain, since 1985, the proportion of assistance benefits to total coverage has exceeded the proportion of insurance benefits, while in Portugal the reverse is true since 1989.

During the fifties and sixties, unemployed people in Spain tended to migrate both abroad and to the more prosperous regions. On the contrary, since the 1980's, following the expansion of the welfare state, poor and high unemployment regions (like Andalusia and Extremadura) have become net immigration regions, while the better-off ones, such as Madrid and Catalonia have become net outmigration regions. Furthermore, data from the Labour Force Survey for the period 1987-91 reveal that only 31.2% of the unemployed would accept a job implying a change of residence. Antolín and Bover (1997) find that the register system at the Spanish Public

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series constructed by the Statistical Office.

Employment Office (INEM) and, possibly, unemployment benefits, prevent migration from acting as a mechanism to equilibrate unemployment. We do not have comparable data for Portugal but, in contrast to Spain, Portuguese high unemployment agricultural regions such as Alentejo (comparable to Extremadura) have seen large population losses during the 1980s.

As for emigration abroad, if we take emigrants' remittances relative to GDP as an indicator, the stock of emigrants abroad has been much higher for Portugal than for to Spain during the late 1970's and early 1980's. This is in accordance with the drop in migration flows abroad observed in Spain from the mid-1970's which could be thought to have contributed to the rise in unemployment at the time. However, in 1975 Portugal experienced the mass immigration of half a million people fleeing the ex-colonies after independence.

Concerning long-term unemployment, Figure 9 shows that the proportion of the unemployed who stay unemployed a year or more has followed a surprisingly similar pattern since the early eighties in the two countries, but at a quite higher level in Spain (around 55% on average as opposed to 36.2%). Table 2 shows a more detailed breakdown of the unemployment stock by duration. The difference between Portugal and Spain is substantial. There is a much higher proportion of long-term unemployed in Spain which suggests that one of the problems of Spanish unemployment is long unemployment durations. Comparing the proportions of long-term unemployed for a "good" and a "bad" year (see Table 2 and the note to the Table) we see that with adverse conditions the proportion of long-term unemployed increases in Portugal, while in Spain the reverse happens, with an increased share of shorter durations due to higher inflows into unemployment. It is important to note that in Spain, in a good year, around 70% of the unemployed in short durations (less then a year) come from a temporary job, with the rest coming from permanent-contract jobs. The latter are responsible for 49% of the unemployment durations between 12 and 18 months. In a bad year the unemployed with previously temporary jobs increase their share uniformly in all durations. In the next section we

shall discuss the factors that may affect unemployment durations and, in particular, the role of unemployment benefits.

Finally, the flows from employment into unemployment in Spain are 3.5 times those in Portugal (see Figure A.2 in the Appendix), which is the country where these flows are the lowest among the European Union. These higher flow rates from employment to unemployment in Spain are mostly the consequence of the turnover rate of temporary workers in Spain. These inflows into unemployment behave cyclically, increasing in "bad" years in the two countries.

IV. FLOWS OUT OF UNEMPLOYMENT

The Portuguese and Spanish quarterly Labour Force Surveys are identical in many respects. They use similar questions, employ analogous methodologies and have the same rotation structure. Since each individual is interviewed during six consecutive quarters, it is possible to obtain from the raw individual records information about transitions among labour market states (employment, unemployment, and inactivity). Here we are mainly concerned with transitions out of unemployment. From the information on elapsed unemployment duration for each unemployed individual, we can compute the transition rates to employment (or to inactivity). This can be achieved by simply dividing the number of individuals reporting a given elapsed duration that move into employment (or inactivity) during the subsequent quarter, by the total number of individuals with the same elapsed unemployment duration. Such calculation provides the empirical probability of exiting unemployment during the next quarter, given that the person has been unemployed until then.

Computing these conditional probabilities at different durations, we obtain the empirical hazard function (or exit rates from unemployment), which shows how the chances of re-employment change as the length of the spell of unemployment progresses. Non-constant hazard functions are said to exhibit duration dependence. It is very common to find evidence of declining unemployment hazard rates. A number of factors may contribute to this outcome. First, skill depreciation during the spell of unemployment makes the individual less employable. Second, stigmatisation of long-term unemployed by potential employers leads to decreasing arrival rates of job offers. Third, discouragement effects lower search intensity. Fourth, unobserved individual heterogeneity causes “spurious” negative duration dependence because in the presence of heterogeneous individuals the sample of those still unemployed is increasingly made up of those workers with unobserved characteristics which make them less employable.

We have evaluated empirical hazard rates for comparisons between Portugal and Spain for a period after the Portuguese reform in 1989. All the hazards are based on a sample of men aged 20 to 64 for each country. In Figure 10 we present the empirical hazard functions for Portugal and Spain by the state of destination. Given the much higher unemployment rate in Spain, it is striking that for the first nine months or so, the transition rates into employment are higher in Spain. This puzzle may be partly explained by looking at Figure 11. In Spain, there is a very important difference between the exit rates to a temporary job and to a permanent one. For the first nine months, the hazard rate into a temporary post is over four times that into a permanent one. This is in sharp contrast with Portugal where the hazard rates for the two types of contract are very similar and in between the Spanish exit rates to temporary and permanent contracts. The high proportion of temporary contracts in Spain could in part explain the higher aggregate exit rate in Spain compared to Portugal. However, at the same time, those exiting unemployment into a temporary-contract occupation, in high numbers in Spain, will enter again the pool of the unemployed. It would also be interesting to compare the empirical hazards for longer durations. In what follows, we will examine empirical hazards by different characteristics.

The behaviour of unemployment benefits recipients compared with non-recipients does not differ much between Portugal and Spain (see Figure 12). In both cases unemployment benefits recipients move to employment at a significantly lower pace than non-recipients. An analysis of hazard functions by age group (see Figure 13) indicates, again, a similar pattern between Portugal and Spain that is coherent with the benefit systems in each country. In both cases, workers aged 20 to 29 do not seem to behave differently from workers aged 30 to 44. Workers aged between 45 and 64 years face significantly lower probabilities of leaving unemployment compared with the other two age groups. However, in Portugal this probability is much lower than for the other two groups (and compared to Spain). This could be explained by the generosity of the benefit system (in terms of benefit duration) for older workers in Portugal. These patterns are consistent with the

empirical hazard functions obtained for different levels of tenure in the previous job (Figure 14). Workers displaced from long-tenure jobs have much more difficulties in leaving unemployment than short-tenure workers. However, those coming from very short-tenure jobs in Spain have a much distinctly higher hazard of leaving unemployment than those with previously longer tenure as compared to Portugal. Here again this may be due to the fact that Spanish benefit duration increases with tenure rather than with age as in Portugal.

Figure 15 shows that in Portugal and Spain individuals who are unemployed due to the end of a contract move into employment at a faster rate than those that are looking for a first-job or were dismissed from their last job. However, it seems that first-job seekers have better prospects of finding a job in Portugal than in Spain. On the other hand, Spanish unemployed workers that have been dismissed appear to have initially higher exit rates than their Portuguese counterparts, which probably reflects the fact that many dismissals in Spain involve people with temporary contracts.

Cyclical downturns and upturns in the economy are expected to affect the out-flows from unemployment. In Figure 16 empirical hazard functions are graphed for boom and recession years. As expected, hazard rates are higher when economic activity is strong and lower when it is weak. However, the impact of the business cycle is not the same in both countries. For Portugal, the hazard function for 1992 (a "good year") crosses at around twelve months the one for 1995 (a "bad year"). This does not happen for Spain, where the hazard of leaving unemployment in a good year (1989) is higher at all durations. A possible explanation is that in Portugal, in a good year, the unemployed find a job more easily and the ones left with long durations are, for example, the "less" employable, by some unobserved characteristics. On the contrary, in a bad year more employable people are left at long durations given the difficulty in finding employment. This would fit the effect of the business cycle on the aggregate distribution of durations explained in Section III.

In the previous analysis of empirical hazards we have seen that the factor that

has the most important impact on exit rates, both in Portugal and in Spain, is whether the individual receives unemployment benefits or not. To assess how significant these effects are and to control for personal characteristics and the business cycle, we estimate an econometric transition model. The estimation results presented in Table 3 indicate that sizeable effects of unemployment benefits remain even after accounting for observed individual and time heterogeneity. In fact, after insulating the effects of age, schooling, tenure and sector in the previous job, head-of-household status, and cyclical and seasonal differences, being a recipient of unemployment benefits reduces significantly the probability of getting a job in both countries. This effect is higher for Spain, where the odds of leaving unemployment for those without benefits is 1.8 times those with benefits, than for Portugal where the odds ratio is 1.5 (see columns 1 and 5 in Table 3). The higher effect of unemployment benefits in Spain probably reflects a higher level of benefit amounts compared to Portugal[9].

The age and tenure coefficient estimates appear to be remarkably similar for Portugal and Spain. However, unemployment insurance rules differ markedly between the two countries with respect to maximum duration of benefits. Whereas for Portugal potential duration of benefits depends solely on the age of the individual (the older the unemployed the longer the duration of benefits), for Spain the duration of benefits is determined by the tenure on the previous job (see Table A4). In order to account for those differences we interacted the age and tenure variables with the unemployment benefit dummy. The influence of duration of benefits is clearly borne out in the estimation (see columns 2 and 6 in Table 3). Older individuals receiving unemployment benefits exit unemployment at a significantly lower rate in Portugal than in Spain, while individuals with longer tenure in the previous job exit unemployment at a significantly lower rate in Spain than in Portugal.

In all the previous specifications the coefficients on the elapsed duration dummies exhibit negative duration dependence. That is, the hazard rates decline over the spell of unemployment. Human capital depreciation, stigmatisation, or

[9] Note that benefit amounts are not observable at the individual level in the Labour Force Survey.

unobserved individual heterogeneity may account for this outcome. Nevertheless, the exhaustion of unemployment benefits (or the decline in replacement rates, as in Spain) should have, after some critical point, a counter-balancing effect on the hazard rates. In order to accommodate the possibility of a time-varying effect of the unemployment benefits we also interacted this variable with the logarithm of elapsed unemployment duration. In both cases, the effect of unemployment benefits appears to decline with duration of unemployment, most notably for Spain (see columns 3 and 7 in Table 3). This evidence is consistent with the results provided by Bover, Arellano, and Bentolila (1996) for Spain, and by Portugal and Addison (1997) for Portugal.

Finally, the specification presented in columns 4 and 8 from Table 3 allows for time-varying effects for all the explanatory variables. Two points seem worth noting. First, this new set of results does not disrupt our previous findings. And second, comparing the two countries there is an indication that tenure in the previous job influences the escape rates from unemployment in an opposite way. That is, at the beginning of the spell of unemployment, tenure in the last job affects negatively the exit rates in Portugal but this effect fades rapidly over time. For Spain, initially, tenure impacts positively on exit rates but, again, this effect diminishes as the spell of unemployment progresses.

From the previous estimations we conclude that at present, both in Portugal and Spain, receiving unemployment benefits has significant desincentive effects that reduce substantially the probability of leaving unemployment. Therefore the higher unemployment benefit coverage in Spain will be producing lower flows from unemployment to employment in Spain as compared to Portugal. Furthermore, the estimated desincentive effect is slightly stronger than in Spain.

However, the small estimated difference in the disincentive effects of receiving benefits on the probability of exiting unemployment coupled with the current difference in the levels of unemployment benefits coverage between the two

countries does not seem to be able to explain by itself the current wide difference in unemployment rates between Portugal and Spain.

V. WAGES

If we compare the monthly wage distribution for full-time workers for the two countries (1994 for Portugal, 1995 for Spain, see Figure 17), one important difference is in the level of wages in the two countries, with wages in Portugal being much lower on average. If we deflate the average wage in Portugal and Spain by the corresponding Purchasing Power Parity[10] to eliminate price level differences between both countries, we obtain 1017.65 for Portugal in 1994 and 1995.84 for Spain in 1995. This is a substantial difference even after taking into account wage increases in Portugal between 1994 and 1995. The difference is even higher in terms of PPP deflated median wages, the median wage in Spain being well over twice that in Portugal.

On the other hand, wage dispersion in Portugal is higher than in Spain. For full time workers, the ratio of the 90 to the 10 percentile is 4.25 in Portugal and 3.58 in Spain. If we measure dispersion relative to the median (i.e. (90 percentile-10 percentile)/50 percentile), we obtain an even higher dispersion for Portugal (1.96 as compared to 1.50). Moreover, if we look at other data sets, which are not strictly comparable to the ones used for Spain in Figure 17, it appears as if wage dispersion seems to have been increasing more in Portugal than in Spain during the 1980's[11]. As is clear from the figure, the higher dispersion is due to a longer and fatter upper tail in Portugal, while the bottom 50% of the distribution is more compressed in Portugal than in Spain. Indeed, the ratio of the 50 to the 10 percentile is 1.65 in Portugal, lower than the figure for Spain at 1.72.

To study what factors are behind these differences in the overall wage distributions between the two countries, in this section we do three things. Firstly, we estimate wage equations for Portugal and Spain using individual data, which allow us to analyze differences in returns to education, tenure, and type of contract. Secondly,

[10] Source: OECD, Main Economic Indicators, May 1997.
[11] This information is taken from individual Social Security records over the period 1980-1987 (see Bover, Bentolila, and Arellano, 1997).

on the same data, we estimate regressions for the conditional variance of wages in order to analyze differences in dispersion between the two countries for workers of a given category. Finally, we compare the distributions of educational categories and other characteristics in order to see the effect of differences in endowments as opposed to differences in returns on the position and dispersion of the overall wage distributions.

The data used for Spain come from the 'Encuesta de Estructura Salarial 1995', while for Portugal we use the 'Inquérito ao Emprego 1998'. The reason for choosing this household survey for Portugal was to be able to distinguish between temporary and permanent contract workers. The data for Spain refer to 1995 which is the only available wave, while for Portugal the wave we use is 1998 because previously the wage variable was only available by intervals. Both data sets exclude agriculture and the Public Sector.[12] In our samples we exclude people in part-time jobs and those aged less than 18 or more than 60 years old.

The estimated wage equations are reported in Table 4A. It is noticeable that there are differences in the returns to certain relevant characteristics that are significant both in statistical and economic terms. In particular, returns to education are much higher in Portugal while tenure is much more rewarded in Spain.

As for the distribution of educational categories in the two countries, in Table 5A we report the composition of the samples used in estimating the wage equations. To complement the information on educational levels in the two countries we also report statistics on the years of education. We can see that education level is higher in Spain. However, if we look at the distribution of the overall labour force by education levels which is more relevant to learn about the supply of education, the difference between the two countries is smaller (see Table 5B). From both Tables 5A and 5B it

[12] The results in this section do not change if for Portugal we use data from 'Quadros de Pessoal' where information is provided by the employers, as in the Spanish data set, but where information on type of contract is not provided. We have also checked that the results are robust to using the 1995 wave of the 'Inquérito ao Emprego'.

is noticeable that the percentage of those with primary education in Portugal is more than twice that in Spain. In contrast in Spain the fraction of workers with secondary education is much higher, and so are the fractions of workers with higher levels of education. Therefore, as far as the effect of education is concerned, the overall higher average wage in Spain results from a difference in educational endowments and not from a difference in returns, which act in the opposite direction, since returns to education are higher in Portugal.

The differences in returns to education between the two countries may be partly due to the differences in the supply of educated labour, but also to the role of unions that may exert a stronger pressure towards wage compression in Spain. For example, Card (1996) shows how unions raise wages more for workers with lower levels of observed skills and that wage differences between broad skill groups tend to be compressed in the unionized sectors.

Average tenure in Spain, although coupled with estimated returns which are twice as big as the ones in Portugal, is somewhat higher than in Portugal (129 months as compared to 112 months in our samples). We take this result of very large returns to tenure in Spain as compared to Portugal as supporting evidence of the stronger power of the unions in Spain which negociate wage improvements mainly in terms of tenure rather than productivity.

Temporary workers in Spain earn around 10% less on average as compared to their counterparts on permanent contracts, while the figure is only 3% less in Portugal. The segmentation of the labour market in Spain between temporary and permanent workers may have produced, as argued in Bentolila and Dolado (1994), a differential wage bargaining power between permanent and temporary employees, resulting in higher wages for the former. However, since wage increases by categories in collective agreements apply to all workers in that category regardless of their type of contract, differences in wages between permanent and temporary workers may alternatively be attributed to differences in categories (which may

themselves result from differences in bargaining power, but also from differences in firm specific skills). A negative effect on wages of the high turnover of temporary workers is that it prevents them from acquiring firm specific human capital. This negative effect is likely to be important in view of the high returns to tenure observed in other countries as well.

It is difficult, however, to identify separate tenure effects for temporary and permanent workers. If we estimate a tenure effect for temporary workers this estimation will rely almost by definition on short-tenure observations (while the reverse is true for permanent workers). If the wage-tenure profile is non-linear (as we could expect), differences in estimated tenure effects for temporary and permanent workers will not truly reflect different returns to tenure for permanent vs. temporary workers.

As for the returns to age, controlling for tenure and type of contract (aside from the other factors), they are very similar in the two countries.

We now turn to consider regressions for the conditional variance of wages in order to study the relative within-group wage dispersion between the two countries. Aside from larger wage differentials between high and low observable skill categories in Portugal as compared to Spain, we also find larger wage dispersion within educational categories in Portugal and higher differentials in within-group dispersion by educational categories in Portugal. This can be seen in Table 4B where we report the results of a regression of the squared residuals from our wage equations in Table 4A on the different educational categories. In both countries dispersion within an educational category increases as education increases but in Portugal the increments are larger. However, at all educational levels, dispersion within each educational category is higher in Portugal[13].

From the previous estimates we conclude that in Portugal wages exhibit

[13] This result is robust to separate estimations for temporary and permanent workers.

greater variation according to both measured and unmeasured skills than in Spain. Such situation, together with the different unemployment rates between the two countries, is consistent with the analysis of the different unemployment experiences of Europe and the US espoused by Murphy (1995) and others. Such view emphasizes the rigidities in labour market institutions that deter wage dispersion as being responsible for higher unemployment rates. According to this view the problem is not that wages are on average too high but that wage dispersion is too low.

Both Portugal and Spain (together with other European countries and the U.S.) have been subject to common technological shocks that have increased the demand for skill (see Section III.1). However, it appears that labour institutions in Portugal have not prevented these changes in labour demand to lead to wages adjusting, while the role of unions in Spain has limited these wage adjustments, producing unemployment. Indeed, these changes in labour demand have produced a decrease in the demand of low skill workers and of the least skilled/able workers within each skill group. If institutions prevent wages to adjust both across groups and within groups, the less skilled/able (both across groups and within groups) will suffer unemployment. We believe this is precisely the case in Spain where wages within observed skill categories are more uniform as compared to Portugal.

VI. CONCLUSIONS

In this work we identified three main institutional differences that may be important for understanding the large disparities in the unemployment rates between Portugal and Spain.

Firstly, there are differences in unemployment benefits. Before 1985 the difference was extreme since Spain enjoyed a generous system while in Portugal it was virtually non-existent. After 1989, although both countries have come closer in this respect, Spain still has a higher proportion of the unemployed covered by what is a more generous benefit system. Looking at transition rates out of unemployment, we have seen that receiving benefits lowers the probability of leaving unemployment in both countries, but more so in Spain. In Portugal, where benefits are more generous for older people, the hazard for the unemployed aged 45 to 64 is much lower than in Spain, and much lower than for the rest of age groups in Portugal. In Spain, where benefit generosity varies according to tenure, it is mostly short-tenure people, i.e. temporary workers that have the highest hazards of leaving unemployment.

Secondly, there are important differences in wage flexibility. In Portugal, wage floors by category established by collective agreements are set at a lower relative level, and wage increases are less homogeneous across sectors, giving employers more room for manoeuvre than in Spain.

Finally, it is also the case that in practice firing costs for employees on permanent contracts in Spain have been higher than in Portugal.

Union power in Spain and their role in the wage setting process does not result from membership but from the combination of wage bargaining rules and union representation mechanisms, both of which were enacted by law as part of the process of political transition to democracy in the late 70s. In contrast, in Portugal, while the unions in 1974 revolution played an important political and economic role,

after the 'counter-revolution' they lost most of their power.

Blanchard and Jimeno (1995) concluded that the only difference in the labour market institutions they could find to explain the substantial difference in unemployment rates between the two countries was the existence of more generous unemployment benefits in Spain before the 1989 Portuguese reform. Our results represent a departure from this conclusion since in addition to unemployment benefits, we have identified major differences in the wage setting mechanism between the two countries.

Concerning the role of unemployment benefits, we conclude that current observed differences in unemployment benefit coverage are not large enough to be able to explain by themselves the wide unemployment rate difference, given our very similar microeconometric estimates on the impact of benefit entitlement and other factors affecting the probability of leaving unemployment at present in the two countries.

One consideration related to employment protection we should bear in mind is that the low unemployment equilibrium in the Portuguese labour market is associated with weak worker flows. In such case, stringent employment protection, by eliminating desirable separations, may have important efficiency losses on output and welfare (Blanchard and Portugal, 1998).

Concerning the functioning of collective bargaining, our analysis reveals a greater role of Spanish unions in pushing for higher and, more importantly, more uniform wage agreements by skill category. This is borne out in our individual wage equations and our regressions for the conditional variance of wages by educational categories. These show that at present wages in Portugal exhibit greater variation according to both measured and unmeasured skills as compared to Spain.

Given the increase in the demand of skilled labour resulting from skill biased

technological change, the high wage floors by category set in Spain, together with the resulting more compressed wage distribution -both across and within observed skill categories-, hampers the employment probabilities of workers with low productivity (both overall and relative to their observed skill level), even if they have low reservation wages. First-time job seekers have a more difficult time in finding employment in Spain than in Portugal, and the unemployment share of the young is higher in Spain.

Thus, we tentatively come to the conclusion that the key factor in explaining the different Portuguese and Spanish unemployment experiences since the late seventies is the behaviour of the wage setting institutions. By preventing wage dispersion to adjust in the face of changing demand for observed and unobserved skills, the Spanish labour market exhibits less wage inequality among the employed than the Portuguese, but a much greater incidence of unemployment.

The wage setting process experienced by Spain would have been less sustainable without generous benefits and strong employment protection of permanent employees, but given the way union rules developed it would be hard to argue that causality runs exclusively from benefits towards union behaviour and wage setting outcomes. Thus, we do not see the role of unions in the wage setting process in Spain as just a consequence of the larger unemployment benefits.

DATA APPENDIX

A.1. Data Base Description for Portugal

1. Information relating to long-term labour market series (unemployment rates, and sectoral employment) is obtained from "Séries Longas", Banco de Portugal (1997); the unemployment rate series from 1992 to 1996 is obtained from the Labour Force Survey (INE).

2. Information on the composition of the stock of unemployed and on incidence of fixed-term contracts was gathered from the "Inquérito ao Emprego", Instituto Nacional de Estatística (1983-1996).

3. Aggregate data on wages (private-sector wage settlements, wage growth, and minimum wages) are taken from the Banco de Portugal annual reports.

4. Empirical hazard rates and the flows between employment, unemployment and inactivity, and regression estimates for the econometric transition model were computed from the individual records of the "Inquérito ao Emprego", Instituto Nacional de Estatística for mainland Portugal over the period 1992-96. Average figures for wages by type of contract are also obtained from that source for 1996.

5. The empirical wage distribution was estimated using the individual records from the "Quadros de Pessoal" survey, Ministerio para a Qualificaçao e o Emprego (March, 1994).

6. Earning indices by characteristics come from the "Enquadramento Estatístico dos Activos - Anuário das Estatísticas Sociais", Statistics Department of the Ministry of Employment.

7. Unemployment benefit coverage was obtained dividing the number of benefit recipients as reported from the Social Security Services (at December each year) by the number of registered unemployed from the Public Employment Services.

8. Participation rates are defined as the ratio of Active Population (starting at 15) to Population aged 15 to 64 (OECD).

A.2. DATA BASE DESCRIPTION FOR SPAIN

Unemployment rate: Source: from 1987II, "Encuesta de Población Activa" (EPA), Instituto Nacional de Estadística (INE); before 1987II, García-Perea and (1994)

Participation rates: Population in the labour force, (starting at 16). Source: OECD
Total population, aged 15 to 64

Employment by sectors. Source: from 1987II, EPA, INE; before 1987II, García-Perea and Gómez (1994)

Agriculture
Industry
Construction
Market services: total employment in services minus employees in general government
General government: employees in public-sector firms and institutions

Fixed-term contracts: Source: EPA, INE
Unemployment by sex: Source: EPA, INE
Unemployment by age: Source: EPA, INE
Unemployment duration: Source: EPA, INE
Unemployment benefit coverage: Insurance and assistance benefit,
Registered unemployment

where,

Insurance benefits exclude part-time unemployment. Source: "Boletín de

Estadísticas Laborales". Ministry of Employment.

Assistance benefits and registered unemployment include the special scheme for seasonal agricultural workers in Andalusia and Extremadura. Source: Ministry of Employment.

Minimum wage: Source: "Boletín de Estadísticas Laborales". Ministry of Employment

Monthly wage distribution: Source: "Encuesta de Estructura Salarial 1995" (INE)

Wage indices by characteristics: Own calculations based on "Encuesta de Estructura Salarial 1995", INE.

Real wage settlements: $\frac{\text{Wage settlements}}{\text{Consumer Price Index}}$

Wage settlements: wage settlement increase agreed in collective bargaining before including the inflation-adjustment safeguards. Source: "Estadística de convenios colectivos de trabajo". Ministry of Employment and Social Affairs

Real monthly wage: $\frac{\text{Monthly wage}}{\text{Consumer Price Index}}$

Monthly wage: regular payments of monthly earnings, by employee. Regular payments exclude arrears due to inflation-adjustment safeguards and other payments of a periodicity greater than one month. Source: "Encuesta de Salarios 1995". INE.

Table 1A: Comparison of Selected Labour Market Indicators
1996

	Portugal	*Spain*
Unemployment rate	7.3%	22.2%
Long-term unemployment	42%	55.2%
Part-time contracts	8.7%	7.5%
Fixed-term contracts	12.5%	33.8%
Self-employment	20.6%	25.1%
Participation rate	72.6%	60.3%
Unemployment Benefit Coverage	39.6%	54.4%
Minimum wage (as a percentage of average wage)	42.6%	31.2%
Wage 90 percentile/10 percentile[1]	4.2	3.6

Note: 1. 1994 data for Portugal and 1995 data for Spain

Table 1B: Cross-country regression results, Nickell (1997)

(20 OECD countries, 1983-88 and 1989-1994)[1]

	Estimates	1989-94 values for Spain	1989-94 values for Portugal	(min,max) OECD 1989-94
Unemployment rate (%)		18.9	5.0	(2.3,18.9)
Employment protection	-0.003 (0.11)	19	18	(1,20)
Replacement rate (%)	0.011 (2.2)	70	65	(20,90)
Benefit duration (years)	0.088 (1.6)	3.5	0.8	(0.5,4)
Active policies	-0.024 (2.76)	4.7	18.8	(3,59.3)
Union density (%)	0.012 (1.9)	11.0	31.8	(9.8,82.5)
Union coverage index	0.45 (2.04)	3	3	(1,3)
Co-ordination	-0.46 (5.29)	3	4	(2,6)
Total tax rate	0.026 (2.99)	54.2	37.6	(28.7,70.7)

Note: 1. t-ratios in parentheses. The change in inflation and a 1989-94 dummy were also included.

Table 2

UNEMPLOYMENT DURATIONS as a % of total					
	0-2 months	3-5 months	6-11 months	12-23 months	24 and more months
"Good Year"					
Portugal 1992	27.7	21.0	20.5	15.7	15.3
Spain 1989	15.6	11.7	14.3	17.8	40.7
"Bad Year"					
Portugal 1995	16.0	17.0	21.4	25.2	20.4
Spain 1992	18.2	15.7	18.7	18.2	29.2

Note: The choice of "good" and "bad" years is influenced by the availability of LFS individual data (1992-96 for Portugal and 1987-94 for Spain).
In Portugal 1992 and 1995 are, respectively, the years with the lowest (4.1%) and the highest (7.2%) unemployment rates, although GDP growth was 1.7% in 1992 and 2.3% in 1995. In Spain unemployment was comparatively low in 1989 (17.3%) and high in 1992 (18.4%), with GDP growth at 4.1% in 1989 and at -1.9% in 1992.

Table 3: ESTIMATES OF LOGISTIC HAZARDS[1]

Individual Characteristics:	PORTUGAL				SPAIN			
Benefits	-0.383	-0.052	-0.459	-0.282	-0.600	-0.485	-0.975	-0.842
	(4.50)	(0.28)	(1.90)	(0.64)	(35.20)	(13.84)	(23.23)	(12.98)
Benefits x log Dur	-	-	0.260	0.173	-	-	0.347	0.286
			(2.63)	(0.73)			(21.35)	(7.87)
Benefits x tenure	-	-0.019	-0.027	-0.022	-	-0.035	-0.062	-0.149
		(0.62)	(0.88)	(0.30)		(4.03)	(6.98)	(8.10)
Benefits x tenure x log Dur	-	-	-	-0.018	-	-	-	0.045
				(0.50)				(5.01)
Benefits x tenure^2	-	0.0003	0.0005	-0.002	-	0.0006	0.001	0.004
		(0.30)	(0.50)	(0.43)		(1.79)	(3.85)	(5.58)
Benefits x tenure^2 x log Dur	-	-	-	0.001	-	-	-	-0.001
				(1.53)				(3.77)
Benefits x Age 25-29	-	-0.095	-0.132	-0.105	-	-0.019	-0.033	-0.011
		(0.35)	(0.49)	(0.16)		(0.39)	(0.68)	(0.12)
Benefits x Age 25-29 x log Dur	-	-	-	-0.007	-	-	-	-0.026
				(0.02)				(0.51)
Benefits x Age 30-44	-	-0.263	-0.329	-0.733	-	-0.007	-0.024	-0.277
		(1.38)	(1.47)	(1.32)		(0.15)	(0.54)	(3.33)
Benefits x Age 30-44 x log Dur	-	-	-	0.233	-	-	-	0.141
				(0.81)				(3.09)
Benefits x Age 45-64	-	-0.564	-0.662	-0.529	-	-0.248	-0.278	-0.471
		(2.22)	(2.58)	(0.87)		(4.92)	(5.49)	(5.02)
Benefits x Age 45-64 x log Dur	-	-	-	-0.046	-	-	-	0.102
				(0.15)				(1.99)
Age 25-29	-0.085	-0.082	-0.070	0.022	-0.042	-0.042	-0.041	0.048
	(0.72)	(0.61)	(0.52)	(0.08)	(1.73)	(1.37)	(1.32)	(0.82)
Age 25-29 x log Dur	-	-	-	-0.063	-	-	-	-0.056
				(0.43)				(1.91)
Age 30-44	-0.147	-0.102	-0.085	0.335	-0.105	-0.116	-0.118	0.182
	(1.26)	(0.79)	(0.65)	(1.16)	(4.02)	(3.66)	(3.66)	(3.03)
Age 30-44 x log Dur	-	-	-	-0.257	-	-	-	-0.184
				(1.75)				(5.94)
Age 45-64	-0.582	-0.382	-0.355	0.123	-0.528	-0.392	-0.392	-0.009
	(3.86)	(2.17)	(2.01)	(0.32)	(16.54)	(9.74)	(9.62)	(0.12)
Age 45-64 x log Dur	-	-	-	-0.265	-	-	-	-0.230
				(1.37)				(5.76)
Tenure in previous job	-0.022	-0.014	-0.012	-0.124	-0.022	-0.002	0.009	0.071
	(1.48)	(0.75)	(0.65)	(3.20)	(4.84)	(0.24)	(1.34)	(5.12)
Tenure x log Dur	-	-	-	0.072	-	-	-	-0.031
				(3.26)				(4.55)
Tenure^2	-0.0004	-0.0005	-0.0005	0.004	-0.0001	-0.0004	-0.0007	-0.002
	(0.70)	(0.78)	(0.85)	(3.16)	(0.88)	(1.61)	(2.68)	(3.93)
Tenure^2 x log Dur	-	-	-	-0.003	-	-	-	0.0006
				(3.51)				(2.53)
Secondary Education	-0.003	0.005	0.018	0.396	0.021	0.021	0.023	-0.030
	(0.03)	(0.06)	(0.21)	(1.94)	(1.06)	(1.07)	(1.18)	(0.80)
Secondary Education x log Dur	-	-	-	-0.201	-	-	-	0.033
				(2.06)				(1.71)
University Education	0.130	0.142	0.158	0.429	-0.105	-0.098	-0.090	-0.146
	(0.51)	(0.55)	(0.62)	(0.68)	(2.32)	(2.16)	(1.97)	(1.61)
University Education x log Dur	-	-	-	-0.112	-	-	-	0.039
				(0.37)				(0.85)
Head of household	0.196	0.193	0.186	0.209	0.404	0.395	0.379	0.451
	(1.94)	(1.90)	(1.84)	(0.88)	(18.68)	(18.24)	(17.43)	(11.17)
Head of household x log Dur	-	-	-	-0.018	-	-	-	-0.048
				(0.16)				(2.34)

Table 3: ESTIMATES OF LOGISTIC HAZARDS (cont.)

Sectoral and Time Dummies	PORTUGAL				SPAIN			
Manufacturing	-0.253	-0.263	-0.264	-0.167	-0.368	-0.357	-0.368	-0.363
	(1.93)	(2.00)	(2.01)	(0.58)	(13.19)	(12.77)	(13.10)	(6.97)
Manufacturing x log Dur	-	-	-	-0.058	-	-	-	0.008
				(0.41)				(0.287)
Construction	0.136	0.123	0.120	0.374	-0.258	-0.254	-0.273	-0.231
	(1.03)	(0.92)	(0.9)	(1.34)	(10.87)	(10.71)	(11.41)	(5.49)
Construction x log Dur	-	-	-	-0.154	-	-	-	-0.017
				(1.06)				(0.68)
Services	-0.329	-0.341	-0.351	-0.543	-0.468	-0.463	-0.477	-0.566
	(2.57)	(2.66)	(2.72)	(1.90)	(18.98)	(18.73)	(19.23)	(12.57)
Services x log Dur	-	-	-	0.096	-	-	-	0.061
				(0.68)				(2.43)
1988	-	-	-	-	0.046	0.047	0.050	0.051
					(1.39)	(1.41)	(1.50)	(1.52)
1989	-	-	-	-	0.079	0.081	0.084	0.087
					(2.37)	(2.44)	(2.51)	(2.58)
1990	-	-	-	-	0.066	0.068	0.070	0.072
					(1.96)	(2.01)	(2.06)	(2.10)
1991	-	-	-	-	0.0001	0.002	0.0007	0.001
					(0.00)	(0.06)	(0.02)	(0.005)
1992	-	-	-	-	-0.329	-0.327	-0.331	-0.336
					(9.84)	(9.80)	(9.86)	(9.99)
1993	-0.105	-0.101	-0.093	-0.095	-0.449	-0.447	-0.445	-0.452
	(0.77)	(0.74)	(0.68)	(0.69)	(13.89)	(13.82)	(13.68)	(13.86)
1994	-0.173	-0.183	-0.179	-0.177	-0.311	-0.308	-0.305	-0.312
	(1.31)	(1.37)	(1.34)	(1.32)	(8.11)	(8.02)	(7.90)	(8.07)
1995	-0.257	-0.253	-0.252	-0.260	-	-	-	-
	(1.88)	(1.85)	(1.84)	(1.88)				
1996	0.033	0.039	0.042	0.042	-	-	-	-
	(0.25)	(0.29)	(0.31)	(0.31)				
Second quarter	-0.352	-0.352	-0.354	-0.357	0.108	0.107	0.112	0.112
	(3.46)	(3.46)	(3.48)	(3.49)	(4.94)	(4.92)	(5.11)	(5.11)
Third quarter	-0.152	-0.150	-0.160	-0.155	-0.014	-0.014	-0.012	-0.010
	(1.53)	(1.51)	(1.60)	(1.55)	(0.57)	(0.56)	(0.49)	(0.42)
Fourth quarter	-0.075	-0.071	-0.073	-0.077	-0.120	-0.120	-0.121	-0.116
	(0.72)	(0.68)	(0.70)	(0.73)	(5.06)	(5.05)	(5.07)	(4.85)
Number of parameters	47	52	53	69	50	55	56	72
Number of spells	5699	5699	5699	5699	90717	90717	90717	90717
Average Log likelihood	-0.421	-0.420	-0.419	-0.417	-0.526	-0.525	-0.523	-0.522

Notes:

1. t-ratios in parentheses.
2. In all the specifications reported we include monthly duration dummies for spells up to 24 months and quarterly duration dummies for 25 to 36 month spells.

Table 4A: Wage Equations[1]

Dependent variable: Log net monthly wage	Portugal	Spain
Age	0.035	0.038
	(13.95)	(52.85)
Age squared	-0.0003	-0.00036
	(10.06)	(40.56)
Primary	0.149	.048
	(9.63)	(8.10)
Mandatory	0.364	0.103
	(19.68)	(16.98)
Secondary	0.493	0.294
	(23.70)	(47.65)
Technical	0.807	0.508
	(16.50)	(67.70)
College	1.080	0.711
	(28.51)	(92.32)
Tenure (in months)	0.0005	0.001
	(4.00)	(28.28)
Tenure squared	$-0.4\ 10^{-6}$	$-0.4\ 10^{-6}$
	(1.24)	(5.77)
Male	0.229	0.199
	(28.82)	(96.07)
Temporary contract	-0.030	-0.097
	(2.27)	(33.59)
Constant	10.256	10.741
	(166.84)	(641.24)
R^2	0.48	0.46
Number of observations	7324	142986

Note:
1.Eight comparable economic sector dummies are included for the two countries, aside from the constant; heteroskedasticity consisten t-ratios in parentheses.

Table 4B: Within Groups Wage Dispersion.
Regressions for the conditional variance of wages by educational categories.

Dependent variable: Log Net Monthly Wage Residuals Squared	Portugal	Spain
Primary	0.014	-0.011
	(1.03)	(2.44)
Mandatory	0.043	-0.014
	(2.79)	(3.05)
Secondary	0.058	0.0007
	(3.57)	(0.15)
Technical	0.095	0.039
	(2.98)	(7.36)
College	0.164	0.083
	(7.46)	(16.02)
Constant	0.067	0.108
	(4.91)	(24.58)

Table 5A: Mean of the relevant wage regression variables (from the samples used in the wage regressions)

	Portugal	Spain
Education:		
Less than primary	0.047	0.023
Primary	0.641	0.311
Mandatory	0.158	0.316
Secondary	0.114	0.246
Technical	0.010	0.048
College	0.029	0.056
Years of education	6.667	8.419
Age	36.035	38.185
Months of tenure	111.690	128.613
Male	0.609	0.781
Temporary contracts	0.116	0.251
Log net monthly wage	11.363	12.020

Table 5B: Distribution by education (%). Labour Force

Educational level	Portugal 1993	Spain 1993
Less than primary	10.73	9.06
First Cycle	68.93	33.30
Secondary	9.5	45.17
Technical	3.53	6.30
College	7.75	6.17

APPENDIX

Table A1

LEGISLATION ON DISMISSAL
Definition of types of dismissal

Country	Individual dismissal			Collective dismissal
	Subjective factors related to employees		Company circumstances unrelated to the employees	
	Disciplinary	Failure to adapt		
Portugal	• Employee's culpable behaviour; this due both to its seriousness and consequences makes the permanence of the employment relationship impossible	•Employee's inability to adapt to changes in the nature of his work caused by the introduction of a new technology	•Dismissal of one up to four employees (depending on whether the firm has less or more than fifty employees) due to economic reasons	•Cases in which employer terminates, either simultaneously or within a 3-month period, the contract of employment of at least 2 or 5 employees (depending on whether the firm employs less or more than 50 workers), on the grounds of permanent closure of the firm. Shut-down of one or more of its plants, or the need to reduce the workforce for structural, technological or economic reasons
Spain	• Serious infraction by employee	•Employee ineptitude •Lack of adaptation •Absenteeism	a)Prior to 1994 reform •When there is a need to eliminate a single redundant job position in firm with fewer than 50 employees b)1994 reform •Economic causes: justifiable in terms of the need to make a staffing adjustment to help overcome an adverse situation for the firm •Technological, organisational and production-related causes: to ensure the future viability of the firm and jobs via a more appropriate organisation of resources. Since 1997 it is also possible when the firm faces a lack of competitiveness	a)Prior to 1994 reform •Technological, organisational and production-related causes. No minimum threshold for number of workers for dismissal to be considered as collective b)1994 reform •Economic, technological, organisational and production-related causes when the number of workers affected exceeds specific limits

Table A2.1

MANDATORY PROCEDURES
PORTUGAL

Individual dismissal		Collective dismissal
Disciplinary	Failure to adapt or company circumstances unrelated to the employees	
• Prior to the dismissal the employer has to assess the existence of a fair cause as well as give the employee an opportunity to defend himself against the allegation made. This is an essential requirement for the validity and lawfulness of the dismissal which may otherwise be ruled null and void • Law lists the circumstances under which dismissals are null. These are: (1) failure to notify the intent of dismissal; (2) disrespect for the employees' right to self-defence; (3) non-compliance with the obligation of issuing a written and circumstantial notice of dismissal • Firms with 20 employees or less as well as their workers are exempt from certain mandatory procedures	•Mandatory procedures are similar to the ones applying to collective dismissal and include advance notice to both the employee and the workers' commission of the impending dismissal. Dismissal will only be pronounced after the workers' commission has issued an appraisal of the impending dismissal and the worker has been given the opportunity to dispute allegations made •Law defines the terms for invoking the failure to adapt clause. These include persistent reduction of productivity or of product quality, repeated breakdown of equipment, and safety hazards. This type of dismissal can only occur after six months have elapsed since the introduction of the changes originating inadaptation and after adequate training has been provided and time allowed for adaptation. Law also requires that all employees dismissed due to failure to adapt must be replaced within 60 days of dismissal	•Should notify the workers' commission as well as the Ministry of Employment of the impending dismissal. Notice must present the financial and/or technical reasons originating the dismissals, as well as a list of the workforce and the criteria to be used in selecting the employees to be dismissed and their occupational categories. A stage of negotiation between the employer and employee's representatives follows. This is aimed at agreeing on the terms of carrying out the dismissals and on the adoption of alternative measures (e.g., lay-offs, short-time working, re-training or early retirement). After agreement has been reached or 30 days elapsed since first notice of impending dismissals has been given, each employee concerned must be given a written notice of dismissal at least 60 days in advance. •Currently, the law does not stipulate any criteria for selecting employees to be dismissed; however, trade union representatives and members of working commissions are explicitly given preference for continued employment; collective agreements can establish other selection criteria •Employees affected by collective dismissals are entitled to certain rights, namely: time off to look for another job; financial compensation (one month's pay for each year of employment with the firm, subject to a minimum of three months' pay) and a special right to resign

Table A2.2

MANDATORY PROCEDURES
SPAIN

<table>
<tr><th colspan="2">Individual dismissal</th><th rowspan="2">Collective dismissal</th></tr>
<tr><th>Disciplinary</th><th>Failure to adapt or company circumstances unrelated to the employees</th></tr>
<tr><td>• Written communication to the employee expressing the causes and the date it will take effect.

• Need to demonstrate to the labour magistrate that the employee has committed a serious (continuous) and culpable (voluntary) misdemeanour</td><td>•Written communication to the employee expressing the causes
•Need to demonstrate to the labour magistrate the dismissal causes
•Deposit, on behalf of the employee, of the severance payment of 20 days per year of service, with a maximum of 12 monthly payments
•Allow employees 6 hours per week during advance-notice period to look for work
•Need to submit a copy of the notice of dismissal to employee representatives</td><td>•Agreement between employer and trade unions, which requires majority acceptance.
•Communication to the labour authorities of the outcome of the agreement. The labour authorities issue a resolution
•Written communication to the trade unions representatives concerning the causes prompting the application for the labour force reductions.
•In firms with fifty or more employees, a plan outlining measures must be attached to alleviate the consequences and enable the continuity and viability of the corporate project
•The employer has to initiate consultation proceedings with the legal representatives of the employees</td></tr>
<tr><td colspan="2">• The employee may appeal against the termination decision
• The legal authorities may declare the dismissal fair, unfair or null and void
• The dismissal will be considered unfair if the alleged cause is not proved
• The dismissal will be null and void when the underlying motive is one of the causes of discrimination prohibited under the Spanish constitution or law or when it occurs with a breach of fundamental right and public liberties. Before 1994 reform the null and void dismissal occurred when formal requirements were not observed</td><td></td></tr>
</table>

Table A3

FINANCIAL COSTS (measured in terms of number of months' wages [mw])

	PORTUGAL	**SPAIN**
Notice given	2 m	a) Prior to 1994 reform (1-3m) b) 1994 reform (1m)
Severance pay:		
Fair, by number of years worked	one month's wages per year worked	20 days' wages per year worked
• 9 months	3 mw	0.5 mw
• 4 years	4 mw	2.6 mw
• 20 years	20 mw	12 mw
• max	there is no maximum	12 mw
Unfair, by number of years worked	one month's wages per year worked	45 days' wages per year worked
• 9 months	3 mw	1.1 mw
• 4 years	4 mw	6 mw
• 20 years	20 mw	30 mw
• max	there is no maximum	42 mw
Indirect cost		a) Prior to 1994 reform •wages payable pending a legal ruling and potential appeals lodged by the firm (on average 4 months' wages) b) 1994 reform •If the employer acknowledges that the dismissal is unfair in conciliation, the employee is only entitled to receive the wages payable pending the legal ruling from the date of dismissal to that of the conciliation, this being on condition that the employer places the severance payment at the employee's disposal, depositing it with the court in the 48 hours following the conciliation. •The foregoing obligation of the employer to pay the employee wages is lifted while the appeal lodged by the firm against the sentence declaring the dismissal to be unfair runs its course.

Table A4

UNEMPLOYMENT INSURANCE BENEFITS

	PORTUGAL		**SPAIN**	
	1985	1989	1984	1992
Eligibility	Individuals must have been employed continuously in the last 3 years	Individuals must have been employed for at least 18 months during the previous 2 years	Individuals must have been employed for at least 6 months during the previous 4 years	Individuals must have been employed for at least 12 months during the previous 6 years
Maximum length	No limit 12m+ one additional month for each year of tenure	In terms of age age <25 → 10m 25≤ age <30 → 12m 30≤ age <35 → 15m 35≤ age <40 → 18m 40≤ age <45 → 21m 45≤ age <50 → 24m 50≤ age <55 → 27m 55≤ age → 30m	In terms of months of tenure 6m≤ <12m → 3m 12m≤ <18m → 6m 18m≤ <24m → 9m 24m≤ <30m → 12m 30m≤ <36m → 15m 36m≤ <42m → 18m 42m≤ <48m → 21m ≥48m → 24m	In terms of months of tenure 12m≤ <18m → 4m 18m≤ <24m → 6m 24m≤ <30m → 8m 30m≤ <36m → 10m 36m≤ <42m → 12m 42m≤ <48m → 14m 48m≤ <54m → 16m 54m≤ <60m → 18m 60m≤ <66m → 20m 66m≤ <72m → 22m ≥72m → 24m
Replacement ratio	65%	65%	1-6m → 80% 7-12m → 70% 13-24m → 60%	1-6m → 70% 7-24m → 60%
Minimum amount	100% Min w	100% Min w	100% Min w	75% Min w no dependents 100% Min w dependents
Maximum amount	300% Min w	300% Min w	170% Min w no dependents 195% Min w 1 child 220% Min w >1 child	170% Min w no dependents 195% Min w 1 child 220% Min w >1 child

Table A5. UNEMPLOYMENT ASSISTANCE BENEFITS

	PORTUGAL		SPAIN	
	1985	1989	1984	1989
Eligibility	All unemployed whose households do not have monthly per capita income of more than 70% of the minimum wage and who do not qualify for regular benefits a) They exhausted their regular benefits b) They were employed for at least 6 months in the previous year	All unemployed, whose households do not have monthly per capita income of more than 80% of the minimum wage, who do not qualify for regular unemployment benefits. a) They have already received these benefits for a time-period equal to its maximum duration b) They were hired as employees for at least 6 months but less than 18 months, in the previous year	All unemployed with income no higher than the minimum wage, with family responsibilities and who do not qualify for regular unemployment benefits a) They have already received these benefits b) They were hired as employees for at least 3 months but less than 6 months c) They are over 55	All unemployed with income no higher than 75% of the minimum wage and who do not qualify for regular unemployment benefits. a) They have already received these benefits and have family responsibilities or are over 45. b) They were hired as employees for at least 3 months (with family responsibilities) or 6 months (with no dependents), but less than 12 months.
Maximum length	a) 15 m age < 50 b) 18 m 50 ≤ age < 55 c) 24 age ≥ 55	The same as for legal unemployment benefits, unless social unemployment benefits are due after legal benefits have been received. In this case, duration is half of the above-mentioned. For workers over 55, social unemployment will be paid until they reach the age of 60.	a) 18m b) 3-5m according to tenure c) indefinite	a) In terms of the period receiving insurance benefit <6m and age>45 and dependents→ 24m >6m and age<45 and dependents→ 24m age>45 and dependents→ 30m+6m(1) >12m and age>45 and no dependents→ 6m+ 6m(1) >12m(2)and age>52 and no dependents→ indefinite b) In terms of months of tenure 1-2m → 0 3-5m → according to tenure 6≤ < 12m → 6m and up to 21m with dependents
Replacement ratio	70 % Min w no dependents 80% Min w 1 or 2 dependents 80% Min w 3, 4 or 5 dependents 100 % Min w 6 or more dependents	70% Min w no dependents 90% Min w 1,2 or 3 dependents 100% Min w ≥4 dependents	75% Min w	75% Min w Age<45 75% Min w Age≥45 1 dependent 100% Min w Age≥45 2 dependents 125% Min w Age≥45 >2 dependents

(1) If they have received contributory benefits for 24 months.
(2) Must have contributed at least 6 years during their working life.

Table A6.1

Comparing unemployment benefits entitlement for different individuals

(before 1989)

Individual characteristics	PORTUGAL		SPAIN (since 1984)	
	Maximum length	**Replacement Ratio**	**Maximum length**	**Replacement Ratio**
1. Unemployed with 6 or more years tenure, less than 45 and dependents	I: 12 m + 1 m for each year of tenure	65%	I: 24m	80% 1-6m 70% 7-12m 60% 13-24m
	A:15 months	80% - 100% according to the number of dependents	A: 18m	75% Min w
2. As case 1. but with no dependents	I: 12 m + 1 m for each year of tenure	65%	I: 24m	80% 1-6m 70% 7-12m 60% 13-24m
	A: 15 months	70%	--	--
3. Unemployed with 6 or more years tenure, more than 45 and dependents	I: 12 m + 1 m for each year of tenure	65%	I: 24m	80% 1-6m 70% 7-12m 60% 13-24m
	A: 15 months	80% - 100% according to the number of dependents	A: 18m[(1)]	75% Min w
4. Unemployed with 2 years tenure, less than 45 and dependents	I: --	-	I: 12m	80% 1-6m 70% 7-12m
	A: 15 m	80% - 100% according to the number of dependents	A: 18m	75% Min w
5. Unemployed with 1 year tenure and dependents	I: -	-	I: 6m	80% 1-6m
	A: 15 m - 24 m	80% - 100% according to the number of dependents	A: 18m	75% Min w

[(1)] Indefinite for unemployed over 55
I: Insurance benefits entitlement
A: Assistance benefits entitlement

Table A6.2

Comparing unemployment benefits entitlement for different individuals

(Current situation)

Individual characteristics	PORTUGAL 1989		SPAIN 1992	
	Maximum length	Replacement Ratio	Maximum length	Replacement Ratio
1. Unemployed with 6 or more years tenure, less than 45 and dependents(*)	I: 10-22m	65%	I: 24m	70% 1-6m 60% 7-24m
	A: 5-11m	90% Min w	A: 24m	75% Min w
2. As case 1. but with no dependents	I: 10-22m	65%	I: 24m	70% 1-6m 60% 7-24m
	A: 5-11m	70% Min w	--	--
3. Unemployed with 6 or more years tenure, more than 45 and dependents	I: 24-30m	65%	I: 24m	70% 1-6m 60% 7-24m
	A: 12-15m	90% Min w	A: 36m(1)	100% Min w
4. Unemployed with 2 years tenure, less than 45 and dependents	I: 10-22m	65%	I: 8m	70% 1-6m 60% 7-8m
	A: 5-11m	90% Min w	A: 24m	75% Min w
5. Unemployed with 1 year tenure and dependents	--	--	I: 4m	70% 1-4m
	A: 10-30m	90% Min w	A: -- age <45 24m age >45	-- 100% Min w

(*) 1, 2 or 3 dependents for Portugal, 2 dependents for Spain.

(1) Indefinite for unemployed over 52, even without dependents.

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FIGURE 1

UNEMPLOYMENT RATES

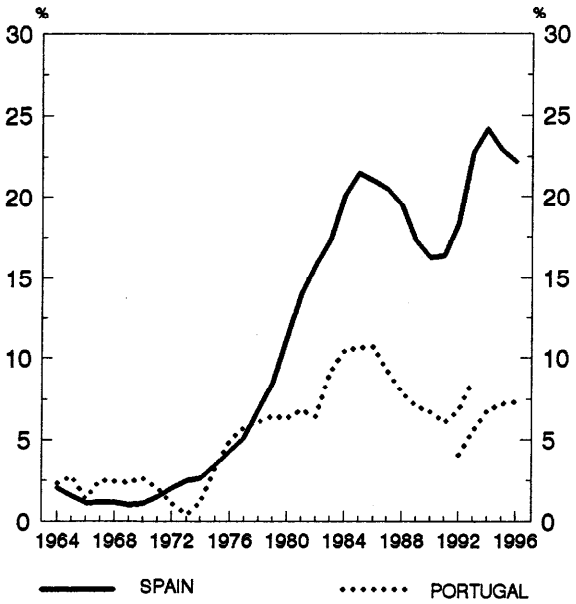


FIGURE 2

PARTICIPATION RATES

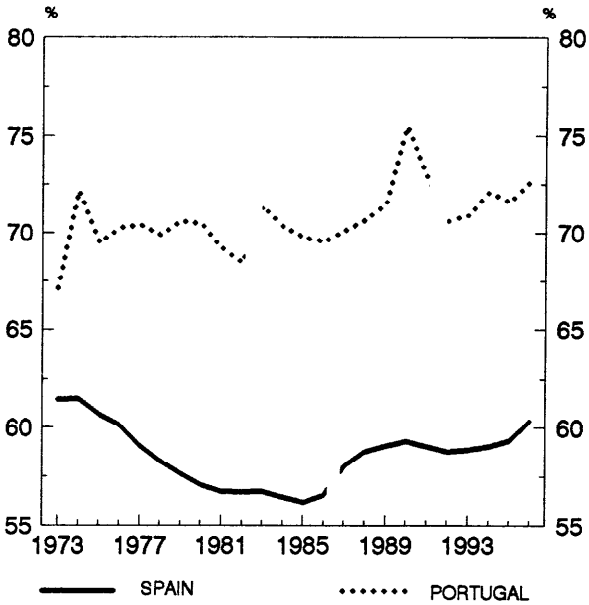
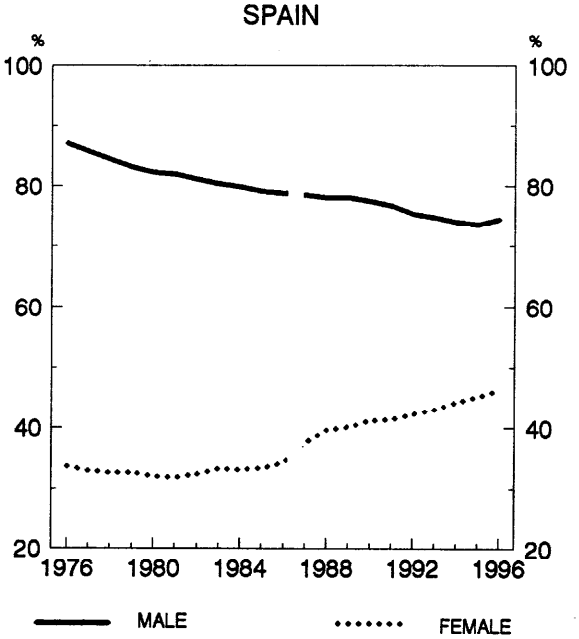


FIGURE 3

PARTICIPATION RATES BY SEX

SPAIN



PORTUGAL

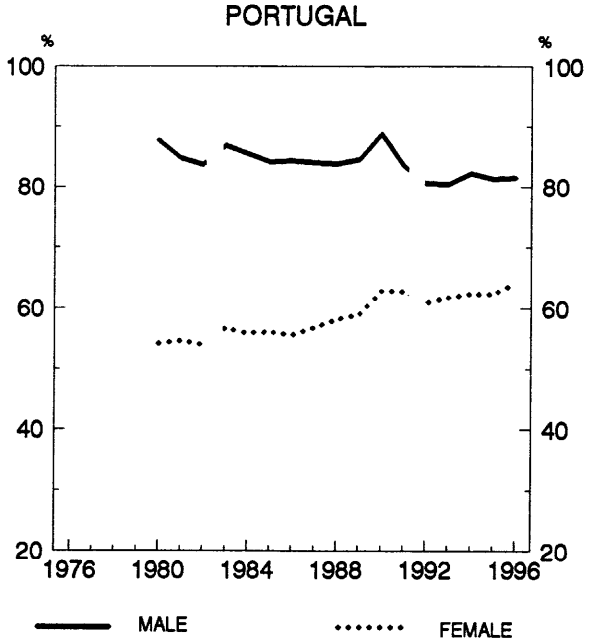
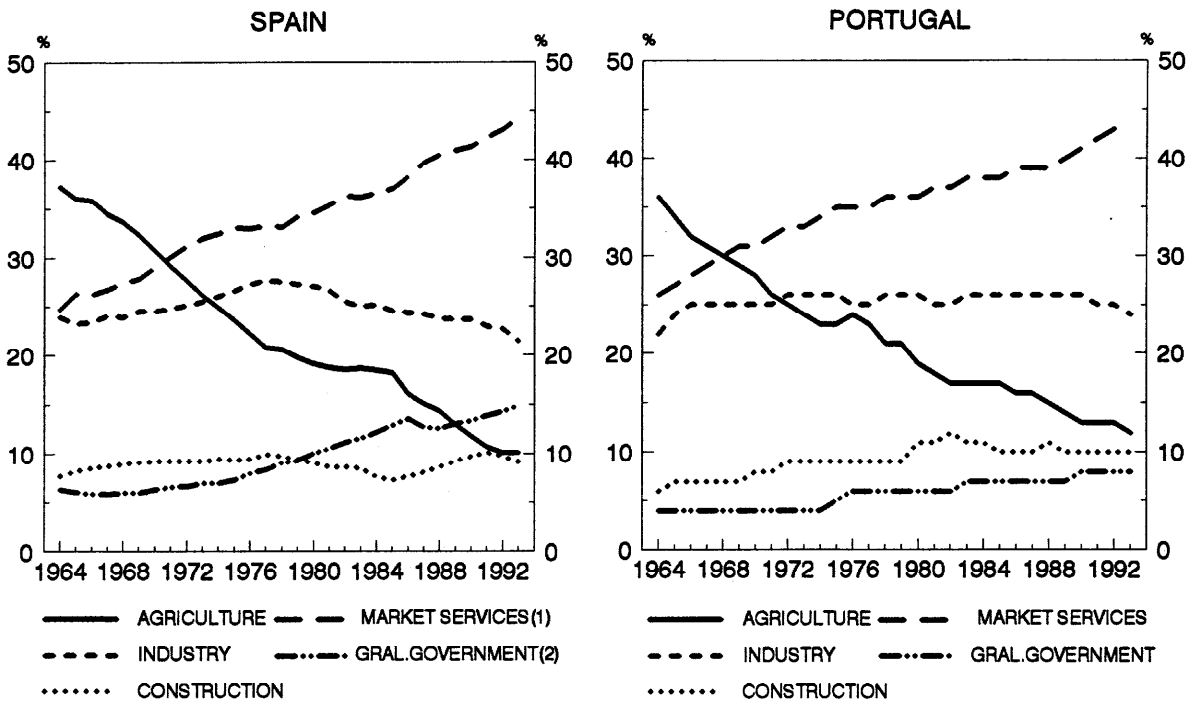


FIGURE 4

EMPLOYMENT BY SECTORS

% of total



(1) Total employment in Services minus employees in General Government.

(2) Employees in the Public Sector minus employees in Public-Sector Firms and Institutions.

FIGURE 5

FIXED-TERM CONTRACTS

(as a % of total employees)

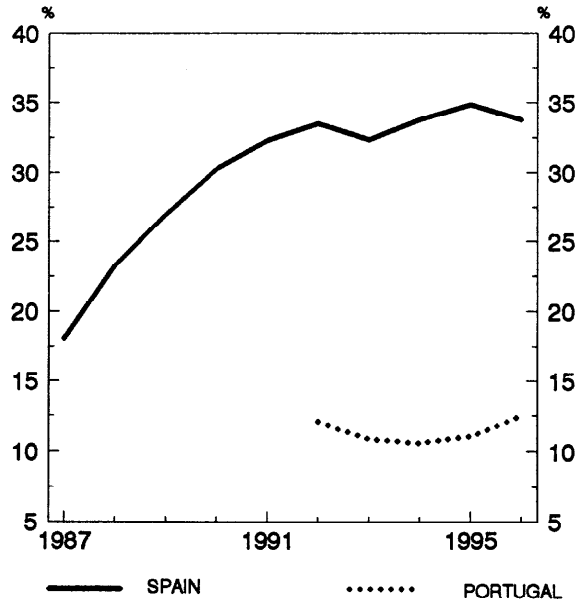


FIGURE 6

UNEMPLOYMENT SHARES BY SEX

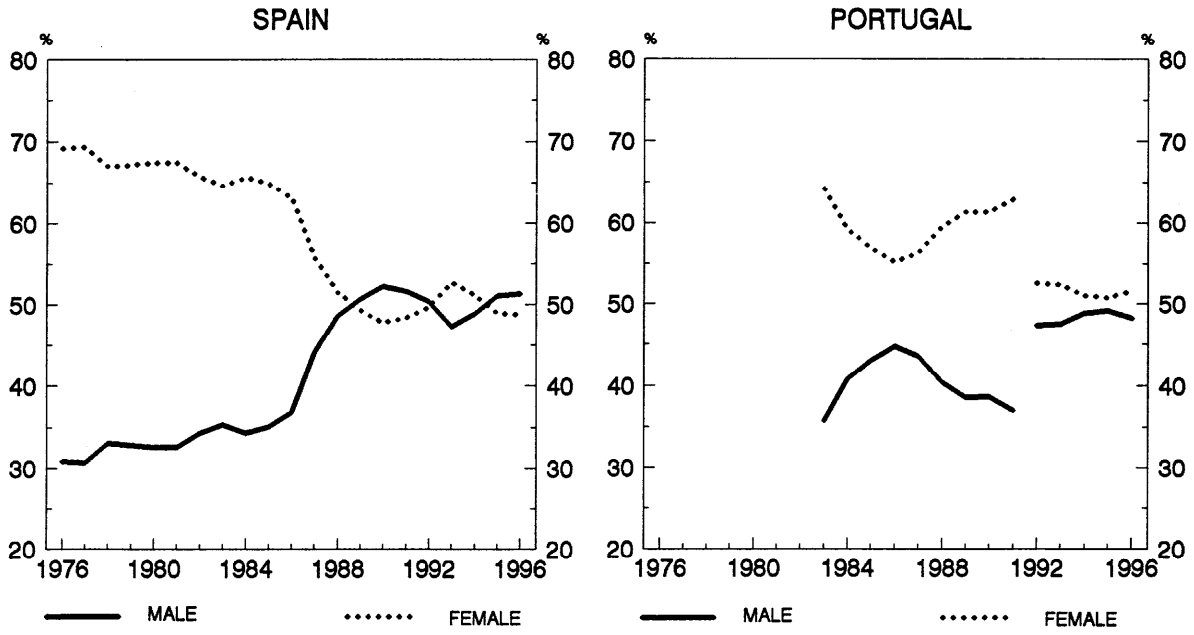


FIGURE 7

UNEMPLOYMENT SHARES BY AGE

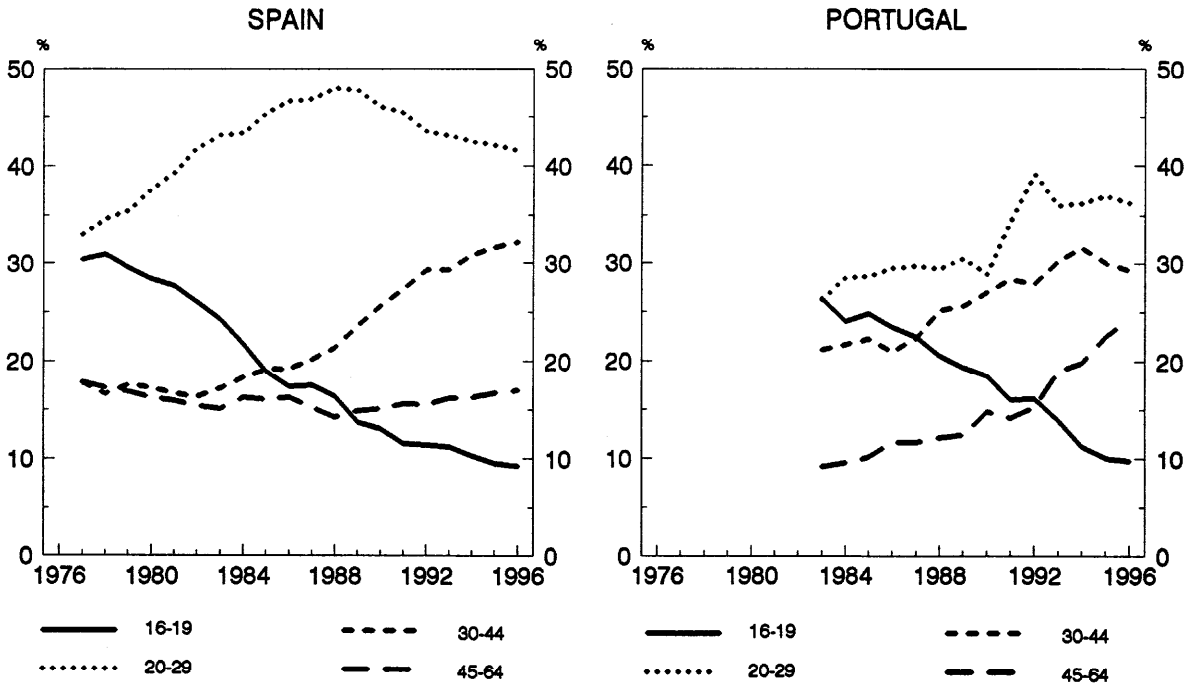


FIGURE 8

UNEMPLOYMENT BENEFIT COVERAGE

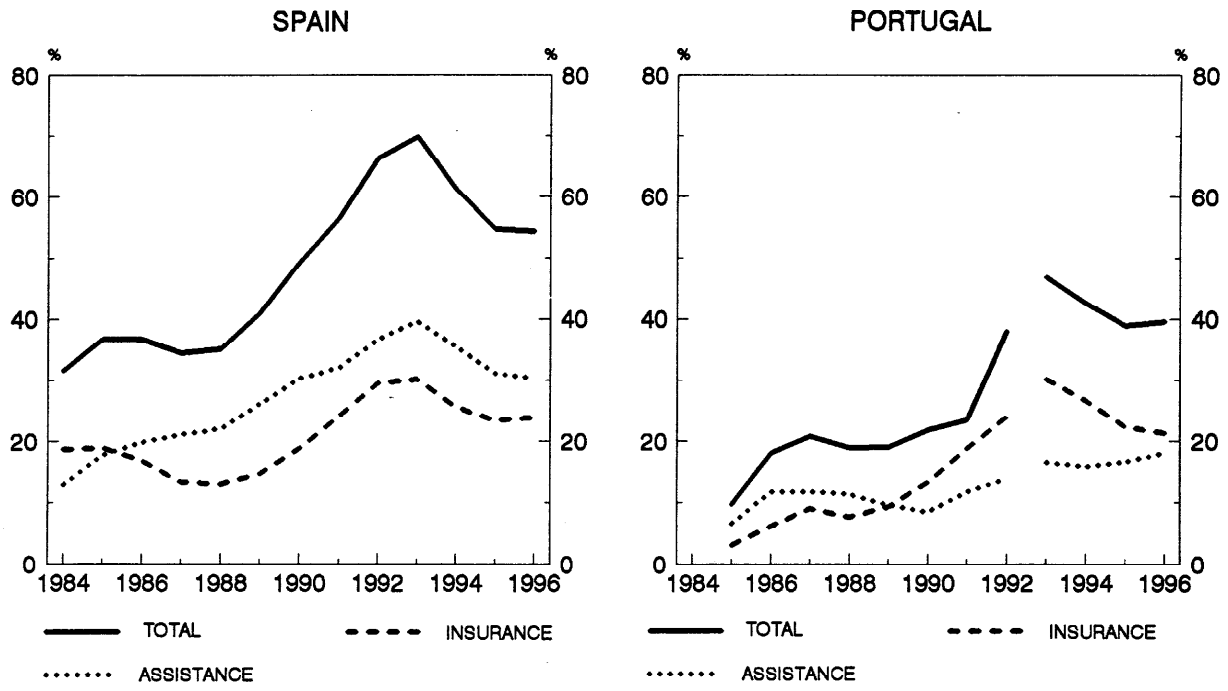


FIGURE 9

LONG-TERM UNEMPLOYMENT (ONE YEAR AND MORE)

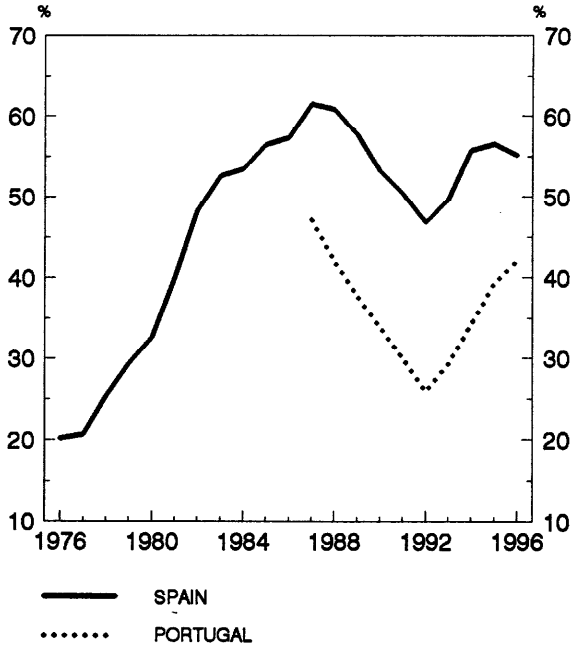


FIGURE 10

EMPIRICAL HAZARD RATES TO EMPLOYMENT AND INACTIVITY

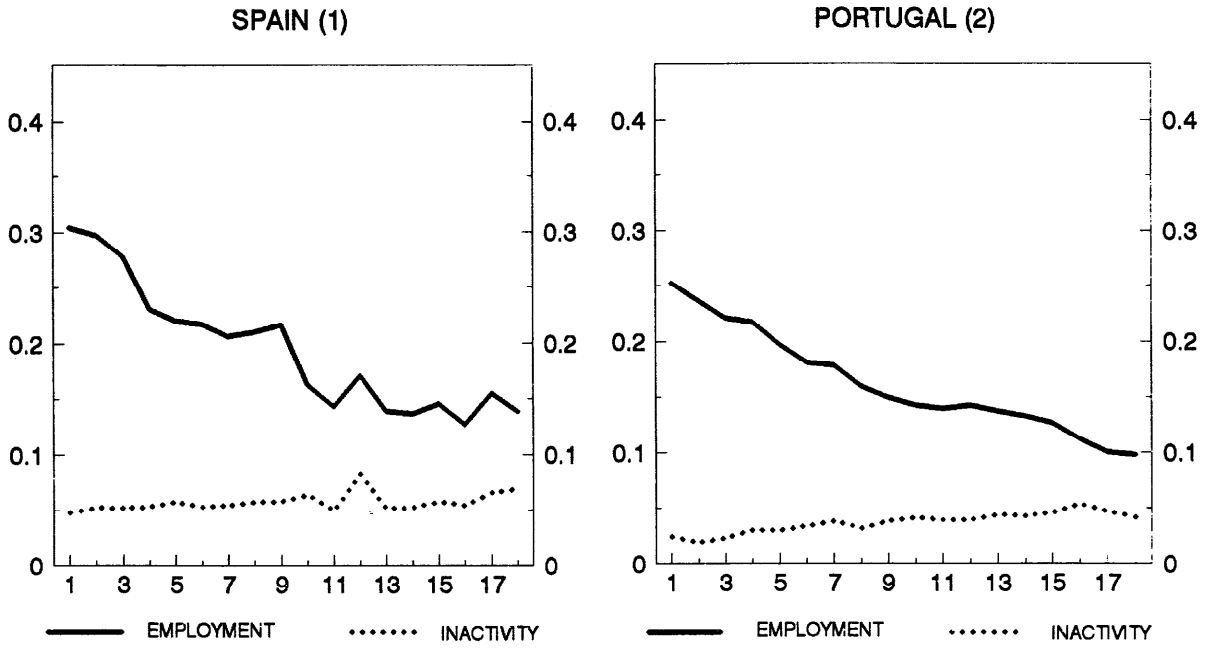
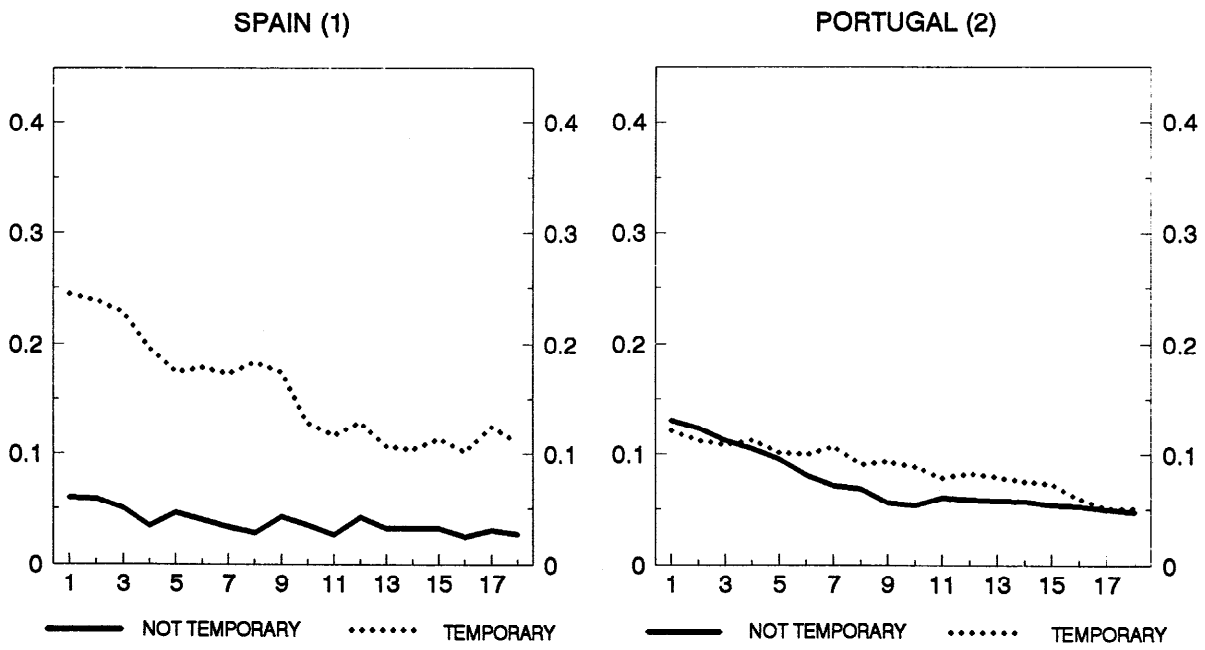


FIGURE 11

EMPIRICAL HAZARDS BY TYPE OF EMPLOYMENT FOUND



(1) Average 1992-1994.

(2) Average 1992-1996.

FIGURE 12

EMPIRICAL HAZARDS BY BENEFITS

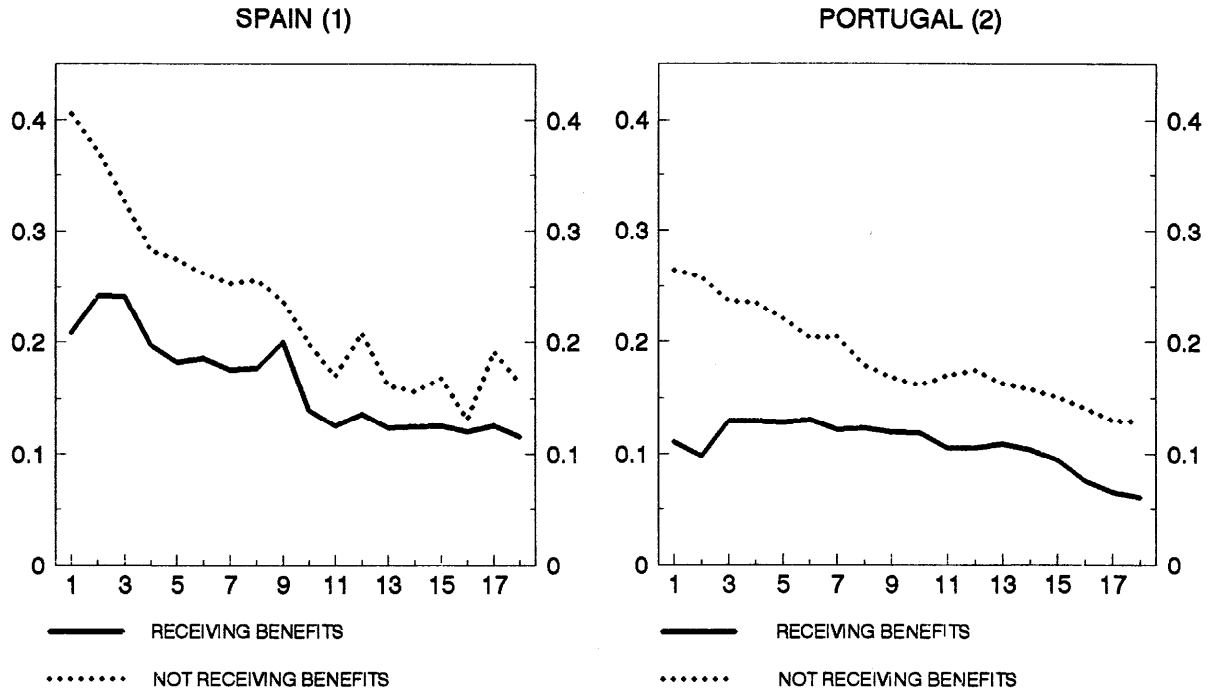
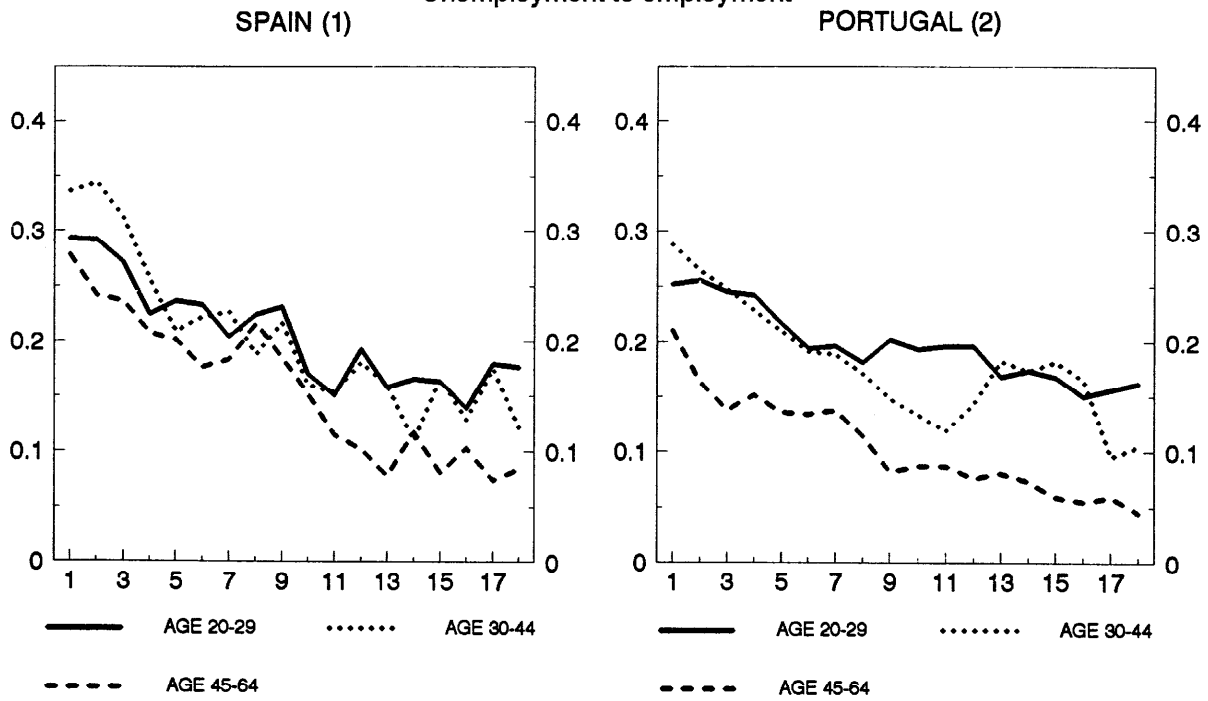


FIGURE 13

EMPIRICAL HAZARD RATES BY AGE

Unemployment to employment



(1) Average 1992-1994.

(2) Average 1992-1996.

FIGURE 14

EMPIRICAL HAZARDS BY TENURE IN PREVIOUS JOB

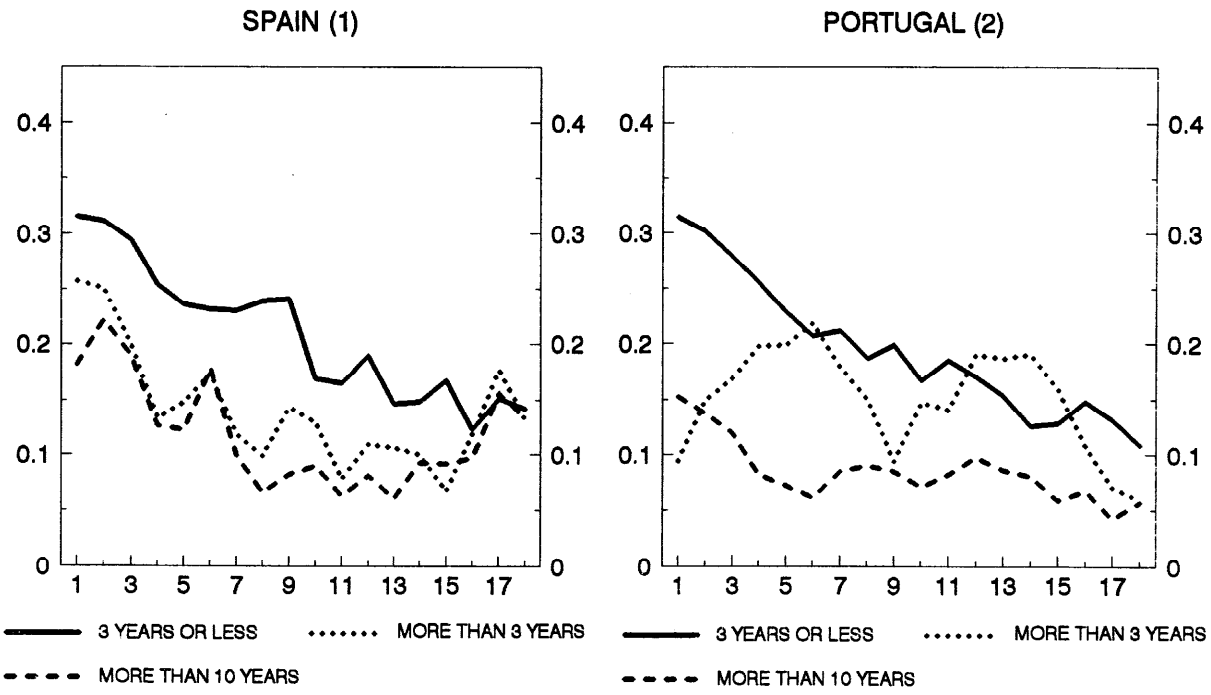
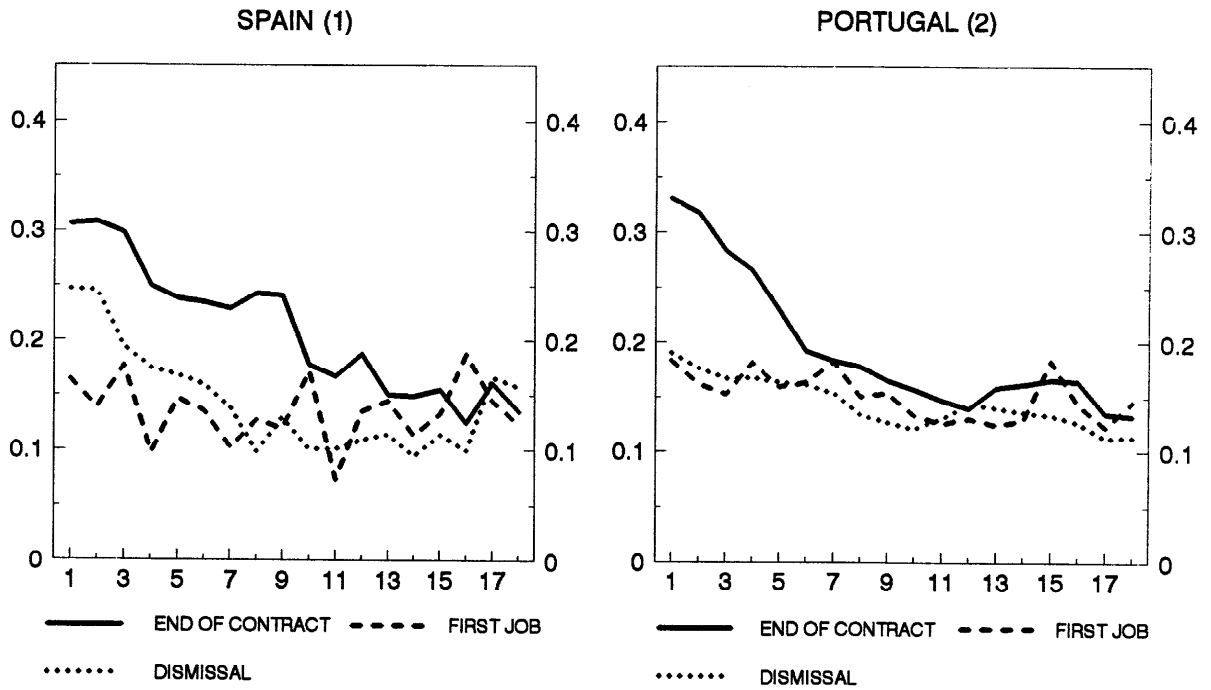


FIGURE 15

EMPIRICAL HAZARDS BY REASON FOR LOOKING FOR A JOB



(1) Average 1992-1994.

(2) Average 1992-1996.

FIGURE 16

EMPIRICAL HAZARD RATES AND THE CYCLE

Unemployment to employment

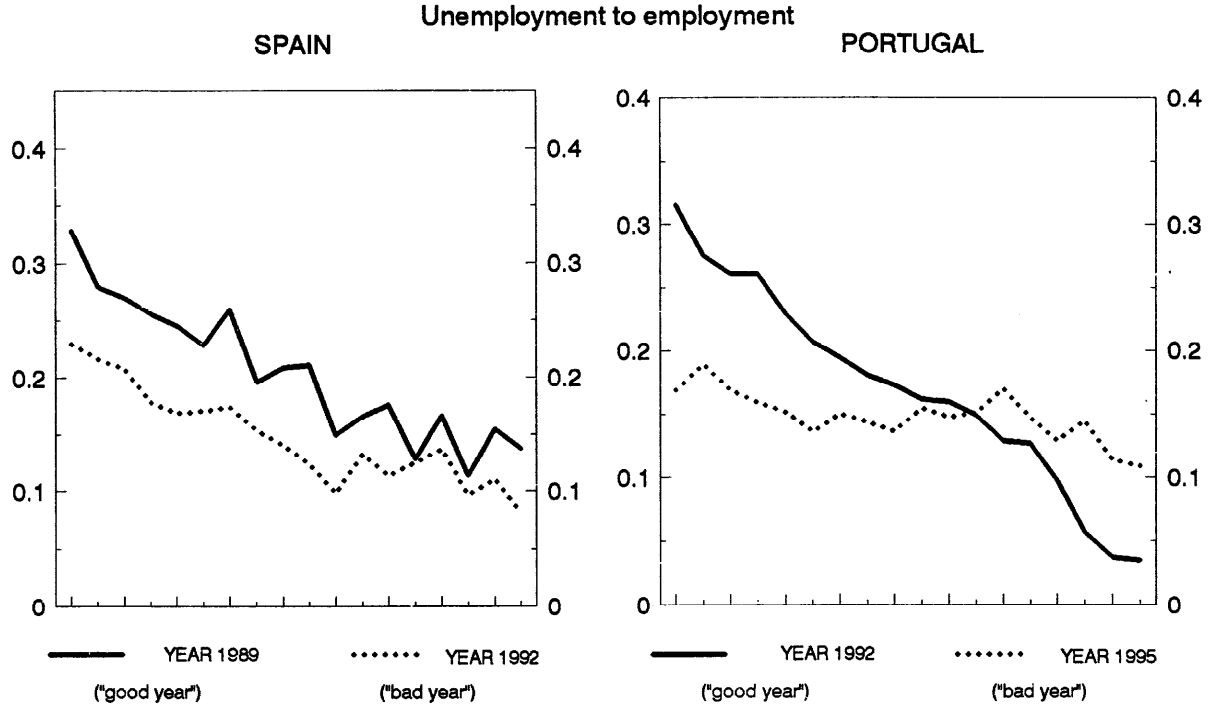
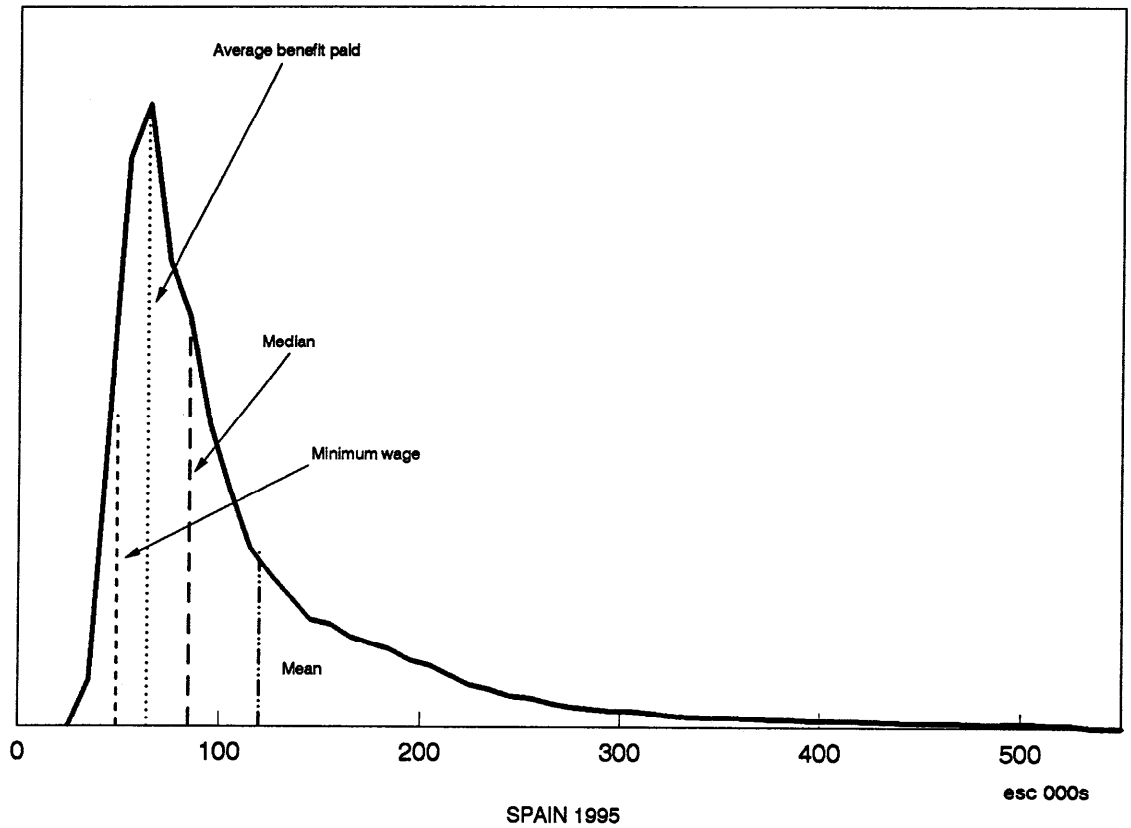


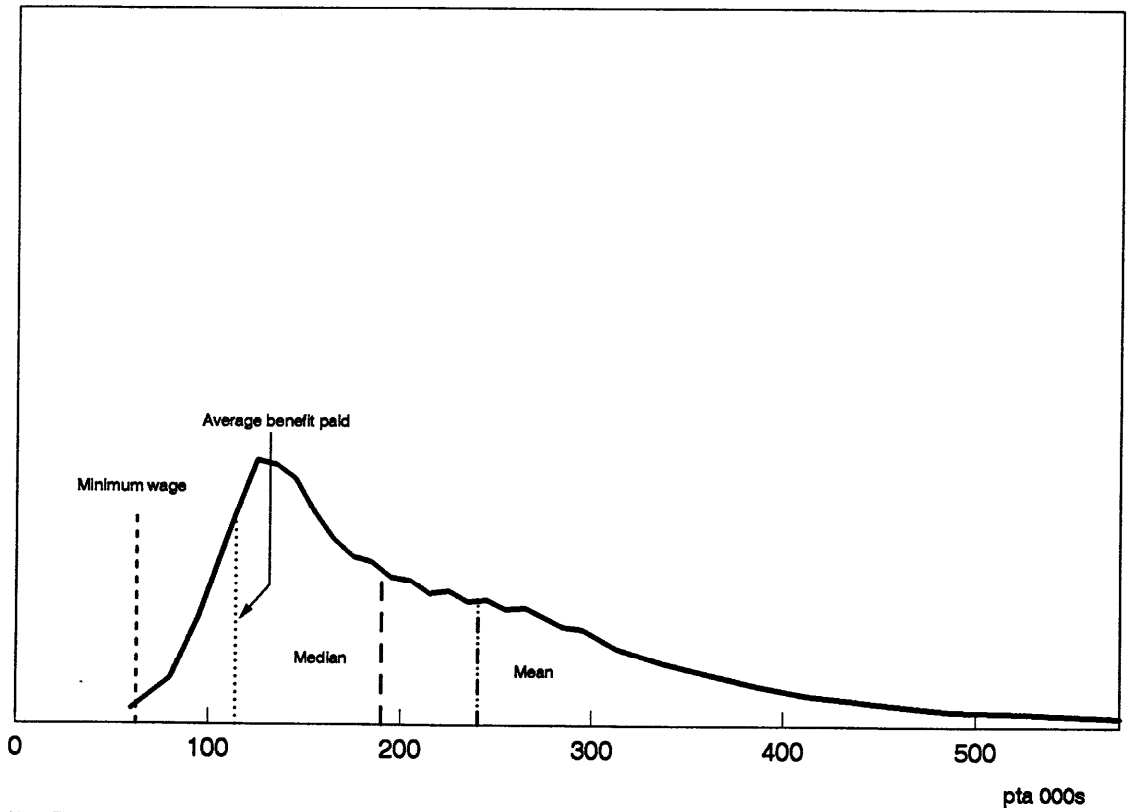
FIGURE 17

MONTHLY WAGE DISTRIBUTION
FULL-TIME WORKERS

PORTUGAL 1994



SPAIN 1995



Note: The horizontal axes for both countries are in comparable PPP units, butthe equivalent national currencies have been maintained.
For Portugal the figure shows the full distribution while for Spain it is truncated at the 95 quantile.

Figure A.1

DISMISSAL COSTS BY EMPLOYEE

Legal severance payment by tenure

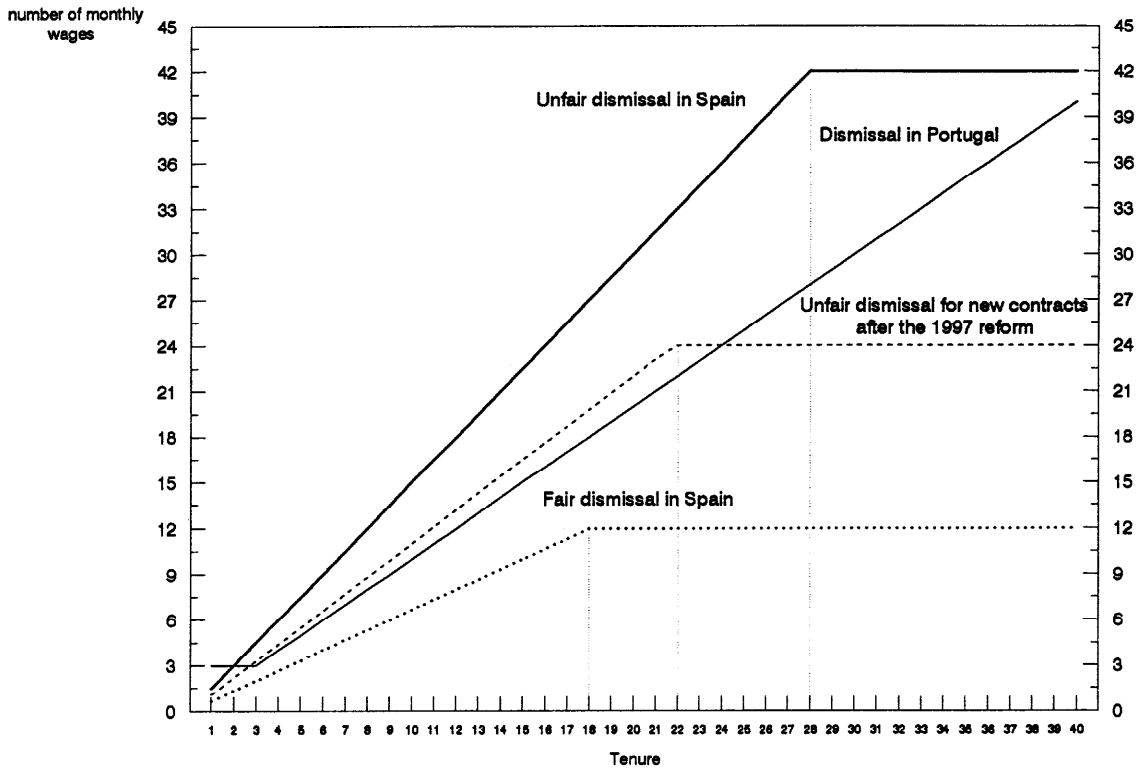
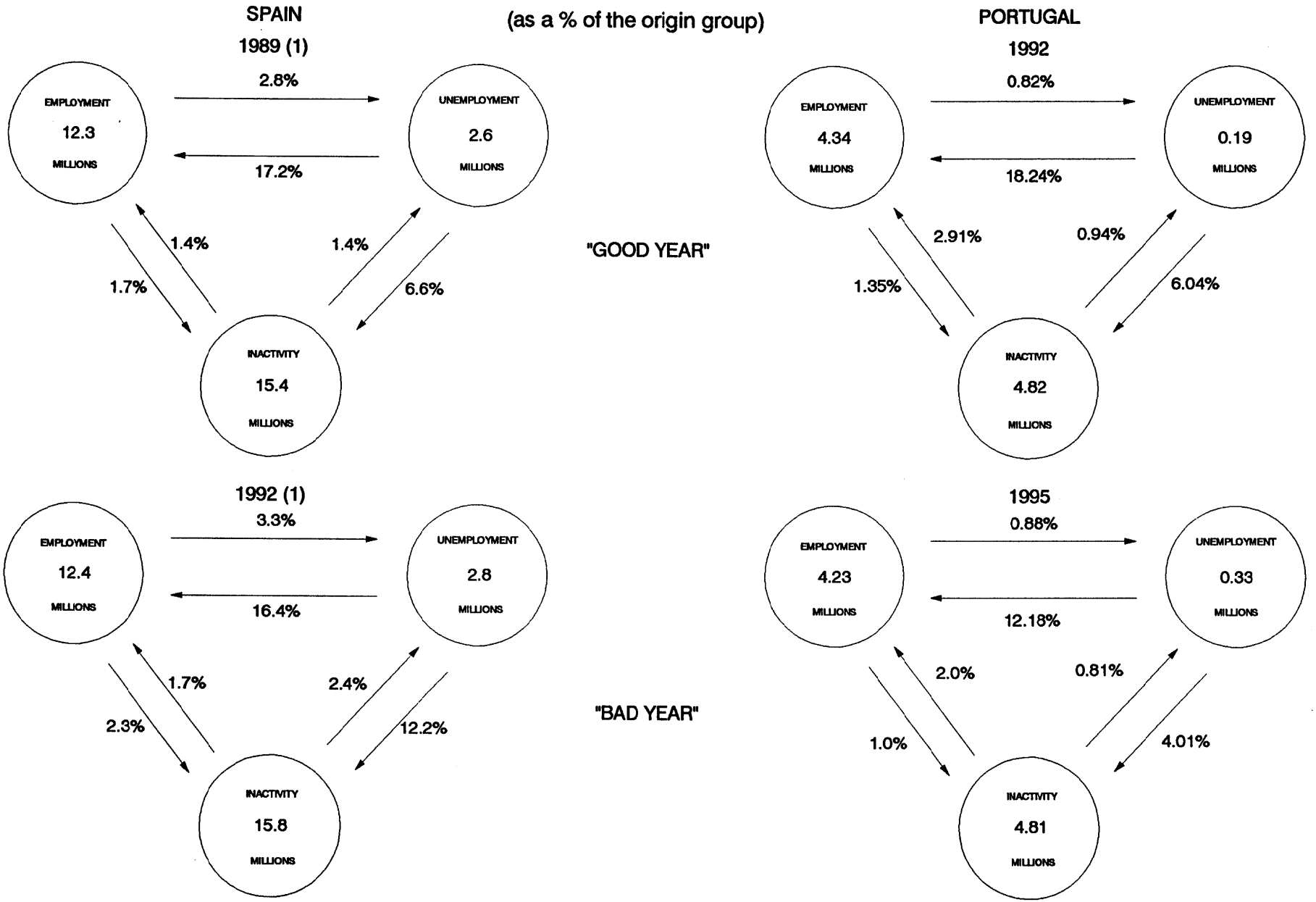


FIGURE A.2

FLOWS BETWEEN EMPLOYMENT, UNEMPLOYMENT AND INACTIVITY

(as a % of the origin group)



(1) First quarter of the year.