

Beyond Eurosclerosis

Tito Boeri and Pietro Garibaldi

Università Bocconi, Milan, IGER and Fondazione Rodolfo Debenedetti (fRDB); Università di Torino, Collegio Carlo Alberto, and fRDB

Summary: Europe no longer suffers from Eurosclerosis. Unemployment, notably long-term unemployment, decreased substantially in the last decade. And mobility across labour market states increased in those countries where unemployment has been falling the most. Institutional reforms – such as declining employment protection and less generous unemployment benefits – account for this sea change. Focusing on these reforms, we rationalize why EU workers, including those with permanent contracts, are increasingly unhappy about labour market conditions in spite of the disappearance of mass unemployment in Europe. Due to these perceptions, policy reversals cannot be ruled out. Governments wishing to minimize the risk of going back to Eurosclerosis should move towards flexicurity configurations, compensating workers for higher risks of job loss, and introduce tenure tracks to the labour market, preventing the development of dual labour market structures.

1. INTRODUCTION

“The labour market has become particularly worrying in Europe... slow employment growth has always been a feature of the Efta and EC regions...there are indications that employment has been unusually weak vis-à-vis output growth...In the EC employment growth has been generally sluggish....In inflexible Europe ... the high incidence of long-term unemployment is associated with low inflow rates into unemployment”

The quotes are from the Jobs Study,, commissioned by the G7 and issued by the OECD in 1994. The report was clearly pointing at Europe as the sick man in the OECD area. And the sickness was “jobless growth” with stagnant unemployment pools.

Since then there has been a sea change in labour market conditions in the EU. Over the last 13 years several European countries experienced a strong decline in unemployment in combination with protracted employment growth. The fall in unemployment was not due to a statistical artefact or to compositional factors, such as the ageing of the European labour force or mass immigration. And employment growth occurred despite moderate output growth. The sickness of Europe is no longer jobless growth. If anything, the symptoms are those typical of “growthless job creation”, a much different pathology than Eurosclerosis.

In this paper we document the disappearance of European mass unemployment, a fact which has been so far surprisingly overlooked. As unemployment may fall because of smaller inflows or larger outflows, we also look at what happened to mobility across Europe. In particular, using the European Labour Force Survey, we measure unemployment mobility in terms of inflows and outflows, in terms of total labour force mobility across the main labour market states (employment, unemployment and inactivity) and in terms of job-to-job flows. We find that, alongside the change in unemployment, several countries, albeit not all of them, experienced an increase in mobility. The relationship between declining unemployment and increasing mobility appears to hold across different statistical measures. Over the last decade, the increase in mobility is thus the other side of the coin of the decrease in unemployment.

The large literature on Eurosclerosis has tried to find the institutional determinants of European unemployment. In this paper we take a different route. We focus on the determinants of mobility and document to which extent they are related to institutional changes. This approach has the advantage of taking more seriously economic theory which has clearcut implications as to the impact of labour market reforms on flows rather than on stocks. We find that *lower* EPL and *lower* unemployment benefits increased mobility, measured either in terms of unemployment turnover, mobility indexes for transition matrices or job-to-job flows. These effects are present also when we control for country fixed effects and time dummies.

We show that since the mid-1990s EU countries indeed carried out many reforms of their labour markets reducing the overall degree of employment protection and reducing the generosity of non-employment benefits if not in terms of new regulations in terms of implementation procedures. These reforms have been successful in taking Europe away from Eurosclerosis, but created dual labour markets segregating many workers in jobs offering little incentives for human capital investment and highly exposed to labour market risk.

In light of these results we ask whether this large change was associated with an improvement of workers perceptions about underlying labour market conditions. We find that employment satisfaction is unsurprisingly lower for temporary workers, but also that perceptions deteriorated for workers with open-ended contracts.

Having reduced unemployment, we argue that the next challenge for policy makers is to find ways to increase workers' perceptions and appreciation for the ongoing developments. This would also reduce the risk of policy reversals undoing the employment enhancing reforms of the last decade. Our interpretation, coherent with our econometric results and analysis of the institutional transformations occurred in Europe, is that a move aimed at exploiting the flexicurity tradeoff could be the way. In other words, reductions in employment protection should be compensated with a higher coverage of unemployment benefits, and vice versa. Another way is to grease the entry in the labour market preventing the creation of dual structures, e.g., by introducing tenure tracks to stable jobs.

The paper proceeds as follows. Section 2 establishes the key facts on unemployment decline, within and across EU countries and asks whether these developments can be accounted for by statistical artifacts or by demographics (mass immigration and population ageing). Section 3 evaluates the evolution of unemployment inflows and outflows, as well as different measures of labour market mobility, and econometrically estimates the effects of labour market institutions on these alternative mobility indexes. Section 4 looks more closely at the characteristics of labour market reforms in Europe, which have increased mobility. Finally, Section 5 analyses the evolution of workers' perceptions on labour market conditions, discussing policies which could reconcile higher mobility with greater satisfaction of European citizens with respect to the operation of their labour markets.

2. WAS IT A TRUE DISAPPEARANCE?

Over the last 10 years, European unemployment has fallen to a level not seen for over twenty-five years. If we look at the countries of the EU15, there are currently almost 5 million less people unemployed than in 1996. Between 1995 and 2007 the unemployment rate in the EU15 has fallen from almost 12 percent to some 8 percent. Within the same time period long-term unemployment almost halved in the EU15 (**Figure 1**): Europe is no longer a place where more than 50 per cent of jobseekers have been on the dole for more than twelve months, as was the case in the mid-1990s.

(insert Figure 1 about here)

While the previous results concern EU unemployment as a whole, we are very much interested in the country experiences. **Figures 2** and **3** show the evolutions of unemployment in the individual countries of the EU in the two decades 1985-1995 and 1996-2006. In the first decade, unemployment for the average country increased slightly, while in the latter decade it fell by 1.3 percentage points. Further, in the last decade unemployment fell in 11 out of 15 EU countries.

(insert Figures 2 and 3 about here)

In the first decade, the high unemployment Club-Med countries (Italy, France, Greece and Spain) were experiencing a further rise of their unemployment. Almost 55 per cent of EU unemployment was concentrated in these four countries at the end of the period. This share could have been higher had Sweden and Finland, two initially low unemployment countries, not experienced a dramatic increase in unemployment in the deep recession of the early 1990s. In the 1996-2006 period, the countries that initially had the highest unemployment rates were the most successful in reducing unemployment. By 2006 the share of unemployment in the Club-Med had decreased to 45 per cent. Overall, in the last decade substantial progress was made not only in reducing EU15 unemployment, but also its cross-country variation.

The decline of mass unemployment in Europe was also associated with a reduction in the dispersion of unemployment rates *within* each country. In particular, the cross-sectional standard deviation of unemployment rates across the regions of the EU15 (defined according to the Nuts II classification) declined considerably after 1995, as a result of both less *cross-country* and less *within-country* variation in unemployment rates (**Figure 4**). This is another new development in Europe. Up to the mid-1990s, the *within-country* variation in unemployment rates was on the rise. Over the last 13 years, the EU-15 countries became more homogenous societies, at least judging by regional labour market disparities.

(insert Figure 4 about here)

The documented disappearance of mass unemployment throughout the EU cannot be accounted for as a side effect of falling participation in the labour market. Since 1995, 21 million new jobs were created. During this period, the European population increased as a result of large migration inflows. However, employment increased independently of population growth: there is not a single country in the EU that has not seen an increase in its employment rate, that is to say, the proportion of the working-age population in employment (**Figure 5**). The average employment rate in the EU15 has increased in real terms by more than six percent: it is probably the only area where Europe has been able to approach the Lisbon targets (the dotted line displayed in **Figure 5**).

(insert Figure 5 about here)

Falling unemployment was not mirrored by an increase of wider measures of labour slack, originated by discouraged workers crossing the porous border between labour market participation and non-participation. Whatever measure of labour slack we take, it is clearly declining - and not just by a small margin. In particular, there was no increase in the number of discouraged workers in all countries for which this information is available (**Table 1**). The number of persons without a job who, after having been seeking for a job, step out of the labour market because they believe that there are no vacancies for them did not increase over time, while the unemployment pools of these countries were losing more than 5 million individuals.

(insert Table 1 about here)

A simple explanation for the decline of EU unemployment can be related to demographic developments.

Europe's populations are ageing and it is known that young people are more likely to be unemployed than older workers. It follows, therefore, that an ageing Europe with a higher proportion of older people will display lower unemployment simply as a reflection of an older workforce. To check whether this composition effect does play a significant role in the decline of European unemployment we can perform a simple exercise in line with shift share analysis. Specifically, we compute the unemployment rate obtained by weighting the age specific unemployment rate in 1995 with the 2007 shares of each age group in the total population. The results are displayed in **Table 2**. The message of the table is clear. Population ageing accounts for a modest fraction of the decline in unemployment, at most one fourth in the countries (like Austria and Belgium) where unemployment to the working age population ratio hardly changed over the decade. Thus, the dominant factor behind the decline in unemployment is a reduction in unemployment among all age groups.

An alternative demographic explanation for the decline of European unemployment could be related to the role of immigration. Large scale immigration occurred indeed in the last decade, notably in countries, such as Spain, where the decline in unemployment was more marked. The third column of **Table 2** performs a shift share analysis for the immigration effect by applying the same shift share technique performed when focusing on the age composition effects. The result is straightforward. Large scale immigration, the second most important demographic phenomenon that has occurred in Europe over the last decade, cannot explain the disappearance of European mass unemployment. If anything, more immigration should have increased unemployment, as the incidence of unemployment is typically higher among migrants than natives in the EU15.

(insert Table 2 about here)

3. Mobility and Institutions

If the first characteristic of Eurosclerosis was high unemployment, the second was low mobility. The quotes from the OECD Jobs Study reproduced at the beginning of this paper put the brunt of blame, after all, more on the turnover of the unemployment pool than on the level of unemployment.

In this section we analyse the evolution of alternative measures of labour market mobility in the last decade. As it turns out that they are all increasing at a time when unemployment was declining, we also analyse the institutional determinants of these mobility patterns in some detail. Surprisingly enough, the empirical literature on Eurosclerosis has mainly estimated aggregate employment and unemployment stock equations devoting little, if any, attention to the empirical relationship between aggregate measures of mobility and labour market institutions. A notable exception is Messina and Vallanti (2007), but their work is limited to the analysis of job flows measured in large firms and does not cover the most recent unemployment decline, since the data set exploited in the work ranges between 1992 and 2001.

Unemployment declines when either inflows into unemployment fall or outflows from unemployment increase. In the first case, unemployment declines in a context of declining mobility across labour market states and lower unemployment turnover. In the second case, unemployment reductions are associated with larger unemployment turnover and higher mobility. In order to evaluate the importance played by inflows and outflows in the evolution of EU unemployment, we carried out a simple counterfactual exercise. In particular, we simulated the evolution of EU15 unemployment since 1995 while keeping either the unemployment inflow rate (unemployment inflows as a percentage of the population in working age) or the unemployment outflow rate (unemployment outflows as a percentage of the initial stock of unemployment) constant at the level prevailing in the 1980s.

In order to obtain long series of unemployment inflows and outflows for the EU15 we used the OECD Unemployment Duration database. The latter provides the distribution of unemployment by duration since 1978, drawing on the national Labour Force Survey questionnaires. We proxied monthly unemployment inflows by obtaining the number of people reporting to have been unemployed for less than one month. Clearly, these proxy inflows do not capture within month unemployment turnover, notably persons becoming unemployed and leaving the unemployment pool within a month. By annualizing unemployment inflows (I), it is then possible to obtain proxy yearly unemployment outflows (O) by simply applying the stock-flow relationship:

$$O_{t,t+1} = U_t - U_{t+1} + I_{t,t+1} \quad (1)$$

where U denotes unemployment levels and the time subscripts, t , refer to yearly frequencies. As equation (1) makes it clear, unemployment outflows are also biased downward by unreporting of within monthly flows, but the bias operates in the same direction as in the case of unemployment inflows and we are interested here in comparing the two types of flows.

With the above caveats in mind, **Figure 6** reports annual inflows and outflows, as estimated from the OECD duration database, for the EU15 as a proportion of the population in working age. After having peaked during the 1992-93 recession, unemployment inflows would seem to have stabilized at a level significantly larger than those registered in the 1980s. Unemployment outflows also display an upward trend with the peak being reached in 2007.

(insert Figure 6 about here)

A better visual characterisation of the role played by unemployment inflows and outflows in the decline of European unemployment is provided by Figure 7. The latter estimates the unemployment rates that would have prevailed since 1995 by holding the ratio of annual inflows to the working age population constant at its 1980-90 levels or by fixing instead the outflow rates at the level of the 1980s. In particular the constant inflow unemployment (U^i) is obtained as follows:

$$U_{t+1}^i = U_t^i - O_{t,t+1} + i_{80,90} \text{WAPOP}_t \quad (2)$$

where $i_{80,90}$ denotes the average inflow rate in the 1980-90 period while **WAPOP** is the population in working age. Similarly constant outflow rates unemployment (U^o) is given by

$$U_{t+1}^o = U_t^o - I_{t,t+1} - o_{80,90} \text{WAPOP}_t \quad (3)$$

To ease comparisons with the actual evolution of EU15 unemployment, both constant inflows and constant outflows unemployment are reported in rates, that is, divided by the labour force measure obtained by adding up the numerator and the number of employed persons in any given year.

Figure 7 suggests that it was mainly an increase in outflows from unemployment which drove the fall in European unemployment since 1995. The constant unemployment outflows curve is significantly *above* the actual unemployment rate, which is itself higher than the constant inflows unemployment rate. Put it another way, the decline in unemployment was due to higher outflows outpacing the increase of inflow rates with respect to the conditions prevailing in the 1980s. As we will discuss at the end of the paper, this finding is likely to be related to the new dual structure of the

labour market, whereby the availability of temporary contracts ease the transition from unemployment into employment.

(insert Figure 7 about here)

Alternative measures of mobility can be derived by drawing on micro data from the European Labour Force Survey (ELFS). Unfortunately the latter is available continuously for at least 11 EU15 countries (Austria, Belgium, Finland, France, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain and Sweden) only since 1995. Moreover, ELFS data are not provided to researchers with individual identifiers. Hence no matching of records across ELFS waves is possible. In order to map transitions across labour market states we had therefore to use retrospective information provided by the individuals. This means that the labour market status in the initial period is the (subjective) one reported by the individual, rather than the (objective) status obtained by applying the ILO-OECD definitions of employment and unemployment. As discussed below, the subjectivity of the initial status may particularly affect measures of flows between inactivity and unemployment as the latter (objective) definition is rather restrictive.

The flows estimated on the basis of the retrospective information provided in the ELFS are the basis for our preferred unemployment turnover figures as well as for summary measures of labour market mobility across labour market states. Unemployment turnover figures can be obtained by adding up the number of persons currently unemployed reporting to have been employed or inactive one year before the interview and the persons reporting to have been unemployed one year earlier who are currently either employed or out of the labour force, and normalising this sum by the beginning of period unemployment level.

Mobility can be further analysed with the help of transition matrices across labour market states. In particular, by drawing on the retrospective information provided by the ELFS, we also estimated for each country the probability of moving across the three labour market states (employment, unemployment and inactivity) between year t and year $t+1$. A transition matrix for country i between year t and year $t+1$ is a 3 by 3 matrix in which each element records the transition probability across the three labour force states. Formally, the transition probability in country i at period t is defined as follows

P_{jk}^i ; $k, j = \text{employment (e), unemployment (u) and out of the labour force (n)}; k = e; u; n$

We report in Table 3 for illustrative purposes the average transition matrix for the years 1986-89 and 2001-2004 in Spain, the country that experienced the strongest decline in unemployment. A few interesting facts emerge from these simple estimates. First, the probability of being still unemployed one year after (the so-called stayer coefficient for unemployment) declines from more than 60 to less than 40 per cent, as a

result of both higher outflows to employment (+15%) and to inactivity (+8%). Second, the persistence of employment and inactivity also declines.

(insert Table 3 about here)

In order to better compare mobility over time and across countries, it is useful to obtain summary measures of labour market mobility. While the transition matrix records 9 numbers, we can obtain for each matrix a scalar measure of mobility. An index widely used in the literature on income mobility is the so called Shorrocks (1978) mobility index M_t^i :

$$M_t^i = (S - \text{tr}(M_t^i)) / (S - 1)$$

where S denotes the number of labour market states and $\text{tr}(M_t^i)$ the trace of the transition matrix mapping flows into and out of employment across the three main labour market states (employment, unemployment and inactivity). The index is bound below from zero, where there is no mobility, that is, the probability of leaving any state is zero, hence the trace is equal to the number of states. The index is bound above from one when 'stayer' coefficients are not larger than $1/S$, an assumption which is always satisfied in our estimated transition matrices.

Figure 8 plots a weighted average (weights are provided by the national working age populations) for the 11 countries of the EU15 listed above of our unemployment turnover estimates and scalar measures of mobility in the 1995-2004 period, together with the evolution of the unemployment rate for the same group of countries. The message is once more rather clear: unemployment declined in Europe at times in which the turnover of the unemployment pool and the mobility across labour market states were increasing.

(insert Figure 8 about here)

In order to complete our characterisation of mobility patterns, we also provide in Table 4 alternative scalar measures of mobility in the periods 1985-95 and 1996-2004 for all countries in which this information is available. In particular, we display Shorrocks indexes obtained by 3x3 matrices in the two sub-periods, even though in the first period the time coverage is more limited. As discussed above, due to the retrospective nature of our data, some flows across participation margins may capture the subjective classification of the labour market status in the initial period (for instance, some persons declaring to have been unemployed one year earlier were actually already considered inactive according to the ILO-OECD definition as they were no longer seeking employment) rather than representing genuine flows. To cope with this problem, in the last two columns on the right-hand-side of Table 4, we also provide measures of labour mobility based on 2 by 2 transition matrices, that is, discriminating only between

employment and non-employment. An increase in the mobility index is observed in 8 countries out of 11 (mobility declined in Greece and Luxembourg where unemployment increased in the 1996-2004 period, but also in France) when we discriminate between unemployment and inactivity. Remarkably large increases mobility are observed in the countries experiencing the largest drops in unemployment (Spain, Ireland and Finland). Finally, we observe less signs of an increasing mobility when working on 2 by 2 transition matrices. Yet, also in this case mobility is on the rise in 9 countries out of 11.

(insert Table 4 about here)

Significant mobility is also bound to occur within the employment status as a result of job-to-job shifts. We can estimate job-to-job shifts on the basis of the ELFS by simply taking the difference between proxy monthly hirings and inflows into employment. The former are estimated analogously with the procedure followed in estimating unemployment inflows with the OECD unemployment duration database. In particular, we multiply the proportion of *employees* reporting to have been on any given job for less than one month by the initial period stock of dependent employment. Then we annualize these monthly hirings and deduct from them the inflows into employment (from unemployment and inactivity) that can be estimated on the basis of the transition matrix. The residual can indeed be interpreted as hirings occurring without intervening unemployment or inactivity spells. Clearly, the same caveats concerning within monthly turnover apply also to this measure, which is likewise biased downwards.

Figure 9 displays the weighted average of job-to-job shifts as a fraction of dependent employment across all EU countries for which data are available. Once more we observe a rising trend mirroring the decline in unemployment. Lower unemployment and higher mobility in Europe would seem to be two sides of the same coin.

(insert Figure 9 about here)

Overall, the European labour market landscape looks much different from the sclerotic situation of the early 1990s: there is significantly more mobility and notably more turnover in the unemployment pool. We also documented that the increase in mobility occurred at times in which unemployment was declining. In order to better characterise the implications of this higher mobility on unemployment, we report in **Table 5** the long-run unemployment levels that can be predicted on the basis of our transition matrices and compare them with the current levels of unemployment in the EU15 for which this information is available. Any transition matrix, when interpreted as a stochastic, first-order, Markov process governing the evolution of unemployment, is indeed consistent with a level of unemployment (ergodic) that is constant in the long run. **Table 5** shows that in the 1996-2004 period 9 countries out of 11 had ergodic levels of unemployment lower than the actual levels displayed over the period – a sign of a

declining trend – although these ergodic levels had themselves declined (in 7 countries out of 11) from 1985-95 to 1996-2004.

(insert Table 5 about here)

Why did this sea change from a sclerotic to a more mobile Europe occur? Previous work on European unemployment (Bean (1994), Snower et al. (1996), Nickell (1997), Nickell and Layard (1999), Blanchard and Wolfers (2000), Nickell, Nunziata and Ochel (2005), Blanchard, (2006)) analysed in detail institutional determinants of employment and unemployment *stocks*, by estimating aggregate employment and unemployment equations. This rich empirical literature is unfortunately silent on the effects of these institutional transformations on labour market mobility. This is rather unfortunate as institutions are bound to have clearer and more rapid effects on flows than on stocks., as indicated by a large theoretical literature on unemployment (Mortensen and Pissarides, 1994 and 1999; Pissarides, 2000; Blanchard and Diamond, 1990).

Our focus in this section is therefore in explaining the evolution of the alternative measures of mobility described above in relation with ongoing institutional transformations in Europe. Quantitative measures of institutions provided by the OECD indicate that European countries underwent sizeable reductions in employment protection and unemployment benefits. Figure 10 reports the evolution of the OECD indexes of the strictness of employment protection and of a summary measure of the generosity of unemployment benefits in the 1986-2004 period for all countries for which these two measures are available for the entire period. According to economic theory, these two institutions are the natural candidate for analysing the dynamics of European mobility. In particular, reductions in employment protection are bound to increase both unemployment inflows and outflows (Bentolila and Bertola, 1990). The relaxation of constraints on the use of temporary contracts is bound to increase mobility and job-to-job flows. Finally, reductions in the generosity of non-employment benefits should increase flows across employment and non-employment. Other institutions, such as tax wedges and union density rates, have also been associated with changes in unemployment *levels*, but the theoretical predictions on unemployment *flows* are less clearcut.

(insert Figure 10 about here)

We test the effects of reforms on mobility using a multivariate setting. We ask to what extent changes in employment protection legislation and other institutional indicators are associated with changes in unemployment turnover, the mobility index, and estimated job-to-job shifts by combining cross-sectional and time-series observations. Specifically, we run the following panel regressions

$$Y_{it} = \alpha_i + \gamma_t + \beta_1 EPL_{it} + \beta_2 UB_{it} + \beta_3 \Delta GDP_{it} + \beta_4 U_{it-1} + \varepsilon_{it}$$

where Y_{it} is alternatively our measure for unemployment turnover, the Shorrocks index of mobility and job-to-job shifts as a fraction of dependent employment for country i at time t , EPL_{it} is the measure of strictness of employment protection legislation compiled by OECD (overall and separately for regular and temporary workers), UB_{it} is the summary measure of generosity of unemployment benefits also compiled by the OECD (averaging the gross replacement rates for two earning levels, three family situations and three durations of unemployment), ΔGDP_{it} is GDP growth, while in some specifications we also include the lagged level of unemployment. We also include country fixed effects (α_i) and year dummies (γ_t). The time period covered by these regressions ranges from 1995 to 2004. In the case of UB_{it} series are available only at two-years frequencies and have been interpolated in order not to reduce significantly the degree of freedom.

The results of these regressions are reported in **Tables 6** through **8**. All regressions include country and year dummies. Thus, they capture country-specific time-series variation in the institutions. All regressions point to significant correlations between mobility and institutions, generally in line with predictions from economic theory. In particular, in the case of unemployment turnover, the decline in the generosity of unemployment benefits and the strictness of employment protection legislation are associated with an increase in the turnover of the unemployment pool in the EU. The coefficient on EPL_{it} is negative and significant across different specifications. Importantly, it holds for both components of EPL, fixed-term and permanent contracts.

The same type of correlations are observed in the case of the mobility index. The coefficient for the generosity of the unemployment benefits is, however, significant only when the focus is on 3x3 transition matrices. Job-to-job shifts, are negatively correlated with the generosity of unemployment benefits the negative effect of EPL is driven by temporary contracts as it is not significant for regular contracts.

Some of the effects are also quantitatively sizeable. For instance, a reduction of EPL of 1 point (e.g., moving a country like Spain to the level of Finland) by itself implies an increase of the overall mobility index of 4 percentage points (**Table 6**), albeit lower than what observed in **Table 4**. The effects of changes in unemployment benefits are smaller. For instance, a reduction of the generosity of 10 points (e.g., moving Denmark slightly above Belgium) implies an increase in unemployment turnover of 1.6 per cent (**Table 7**).

(insert Tables 6, 7 and 8 about here)

Thus, our multivariate analysis suggests that labour market mobility in the EU was fostered by institutional reforms reducing the strictness of employment protection or the generosity of unemployment benefits.

The next section analyse in more detail the nature of these reforms and discusses how they could have possibly affected labour market mobility. This analysis will turn out to be useful in discussing future directions of reform as well as perceptions of Europeans regarding the evolution of their labour markets.

4. WHICH REFORMS?

The regressions in the previous section used standard indicators aimed at measuring the generosity of non-employment benefits and the strictness of employment protection legislation. Such indicators, mainly elaborated by the OECD, have the great advantage of providing quantitative, time varying measures of labour market institutions. In this section, we go beyond quantitative measures and try to understand more deeply which type of reforms were carried out and in which countries during the last decade or so.

The main source of information on labour market reforms in this section is the “Social Policy Reform Inventory” assembled by the Fondazione Rodolfo De Benedetti. It draws on a variety of sources (including country economic reviews carried out by OECD, Income Data Source studies, EC-MISSOC reports, etc.) and it takes stock of reforms carried out in Europe in the field of non-employment benefits (encompassing not only unemployment benefits, but also the various cash transfers provided to individuals in working age) as well as employment protection. It complements the information provided by the OECD indicators in that it offers more insights on qualitative features of institutions. We may observe significant reform activity even at times in which the regulatory indicator exhibits small changes or no variation at all. This may point to unsuccessful attempts of Governments to bypass political opposition to reforms.

Details on the inventory of social policy reforms and on each single regulatory change are offered in the webpage of the Fondazione Rodolfo De Benedetti (www.frdb.org). Hence, we can confine ourselves herein just to providing information on the criteria followed in the classification of the reforms. The frdb inventory of reforms is organised along two main dimensions.

On the one hand, reforms are classified on the basis of their broad orientation, that is, whether they tend to reduce or increase the generosity of non-employment benefits and make employment protection more or less stringent. It should be stressed that increasing rewards from labour market participation does not necessarily mean simply phasing out existing cash transfers mechanism to non-employed individuals. It may simply involve the introduction of wage subsidies, employment conditional incentives or just simply activation policies (including sanctions) for beneficiaries of existing schemes. On the other hand, reforms are classified as piecemeal or radical, on the basis of their design. Radical reforms operate in more than one dimension, while piecemeal are narrow in scope. A key feature of this dataset is that it provides country-specific institutional

details, that are always very important and cannot be captured by simple quantitative indicators. The radical reforms carried out in the EU15 in these domains in the period 1986-2005 are listed in the Annex.

Table 9 shows that there were about 380 reforms over the 1986-2005 period, about 25 per country. Interestingly, the Table also documents an acceleration of reforms increasing labour market flexibility or rewards from labour market participation between 1995 and 2001, the periods in which unemployment decreased and mobility increased. Most of the reforms were nevertheless piecemeal. Beyond these piecemeal reforms, there were 28 radical reforms, almost 2 per country. Most of these radical reform decreased protection (71%) or reduced non-employment benefits (93%). **Table 9** shows also that piecemeal reforms were undertaken in both directions, i.e., increasing or reducing employment protection. In many cases, these reforms simply ended up undoing each other, pointing to a “stop and go” process in the reform effort.

(insert Table 9 about here)

The regressions in the previous section suggest that the most powerful driving factor behind the increase in labour market flows was the reduction of employment protection legislation. Overall, the sequence of reforms dramatically expanded the scope of fixed-term contracts and introduced more types of flexible contract (ranging from temporary agency work to job-on-call).

Interestingly enough, the countries that experienced the largest number of radical reforms aimed at reducing employment protection was Spain, a country that features the most dramatic fall in unemployment and a substantial increase in mobility. Spain is one of the few countries in which employment protection was reduced also for regular workers. Italy also feature a radical reform in 1997. The so called *Pacchetto Treu*, approved in 1997, liberalised temporary contracts and introduced interim contracts. These Italian reforms were substantial but did not alter the structure of regular contracts. Similar reforms were carried out in Greece. A country where the reform process, albeit radical, is characterized by stop and go is Germany, where 4 radical reforms often offset each other.

Overall the reform process changed the conditions at entry into work. In most countries the majority of new hires are currently in these new and highly flexible contracts. To give an example, in Spain, nine out of ten transitions from unemployment to employment involve fixed-term contracts.

Rather than being just a port of entry, these new flexible contracts are often a dead-end. The probability of moving from a fixed-term to a permanent contract within a year is indeed very low, of the order of one out of 20 or one out of 10. **Table 9** below summarizes flows into and from temporary employment in Spain in the 2003-2004

period. Almost 83% of workers continue to have a fixed-term contract one year later. Only 5% succeed in securing a permanent contract. Roughly, 10% will become unemployed again: a probability of job loss that is almost 10 times higher than for those with permanent contracts. Based on these transition matrices, it is possible to predict (by estimating the ergodic distribution) that, in the long run, up to one third of employment in Spain will be on fixed-term contracts.

(insert Table 10 about here)

The reforms of unemployment benefits are also described in the Annex. Most of the radical reforms seem to have common traits across countries, in the sense that they all tightened the conditions under which a non employed worker can continue to obtain unemployment insurance. Such tightening reforms were clearly carried out in Denmark, Germany, United Kingdom and Spain. Beyond stricter eligibility criteria, there is also a tendency to increase monitoring of the recipients, as well as to improve assistance for explicit job search efforts. The replacement rate is also often reduced, with the notable exception of Italy, where in 2005 ordinary unemployment insurance scheme is raised by a month and the replacement rate increased to 50 percent.

5. PERCEPTIONS AND POLICIES

How are Europeans reacting to this sea change in labour market conditions? Are they satisfied with the reduction of unemployment and the increasing mobility documented above or they did prefer Eurosclerosis? And how did the asymmetric institutional reforms described in the previous section impact on the perceptions of different groups of the workforce?

There are unfortunately a few public opinion polls asking the same questions about labour market conditions over time, hence allowing to monitor the evolution of perceptions throughout the institutional transformations documented in this paper. The longest survey available is the *European Working Conditions Surveys*¹ carried out in 1995, 2000 and 2005 among employees in the EU15. **Figure 11** shows how the percentage of workers reporting to be satisfied with their working conditions evolved over time. As shown by the figure, only in Germany (where unemployment increased throughout the period) and in the UK (where unemployment declined mildly), the percentage of respondents declaring to be satisfied significantly increased over time².

(insert Figure 11 about here)

² Similar results are obtained when we look at the *European Community Household Panel*, a longitudinal survey (tracking the same individuals over time), which was unfortunately discontinued in 2001. The proportion of individuals “fully satisfied with labour market conditions” declined by one percentage point per year at exactly the same time that unemployment was improving

Table 9 provides information as to the characteristics of workers satisfied about working conditions. It displays results from a dprobit regression of the probability of being satisfied including country fixed effects as well as controls for age, gender and contractual types (fixed-term vs. permanent contracts) interacted with yearly dummies. The results of this multivariate analysis suggest that satisfaction is lower among men, older workers and employees with fixed-term contracts. *Ceteris paribus*, having a permanent contract increases the probability of being satisfied by 12 percentage points from the baseline. Importantly, other things being equal, workers under permanent contract experienced a decline in the reported degree of satisfaction declined over time (minus 4 percentage points in 2000 and another 6 in 2005) for holders of permanent contracts. This contributes to explain the worsening of perceptions of European workers. There was over time an increase in the percentage of workers with temporary contracts and the perceptions of holders of permanent contracts deteriorated over time.

(insert Table 11 about here)

While the documented difficulties in transforming fixed-term into permanent contracts explain the dissatisfaction of workers with temporary contracts, it is less evident why permanent workers reported increasing dissatisfaction with their working conditions. A possible interpretation is that higher risk of job loss was not compensated by an increase in the generosity of unemployment benefits. In other words, rather than exploiting the *flexicurity tradeoff*, substituting less employment protection with more generous unemployment benefits or “protection against the market” with “protection in the market”, reforms forced workers to move to a lower indifference curve, as discussed in Box 1 and depicted in Figure 12.

(insert Figure 12 about here)

From a normative standpoint, the documented increase in dissatisfaction of European workers carries with it some risk of reversal of the reforms that moved the EU away from Eurosclerosis. Governments wishing to minimize such a risk should probably think about exploiting the flexicurity tradeoff, e.g., by extending the coverage of unemployment benefits. Moving along the indifference curve of Figure 12, however, is non-neutral from the standpoint of public finance, as it involves changes in the social security budget.

Another set of measures aimed at improving workers’ perceptions and neutral from the standpoint of public finance tackle the increasing dualism between temporary and permanent jobs documented in section 4. In particular, a “tenure track” prospect to young workers could well complete reforms of employment protection increasing at the same time their social acceptability. In particular, Governments could promote entrance into the permanent labour market in stages, introducing graded employment protection

and so avoiding the formation of a long-term dual market. Job security provisions, in the form of mandated severance payments, could increase steadily as workers acquire tenure without large discontinuities. Spain did introduce a new type of regular contract in 1994 (see the Annex), albeit not exactly like the one we propose above, but it did not simultaneously restrict access into temporary contracts. As a result, the dual structure of the labour market was almost unaffected.

Arguably, the worsening of workers' perceptions is also likely to be associated with the poor growth performance of the European economy. As shown in Box 1, productivity growth improves the flexicurity trade-off. Unfortunately, the way out of Eurosclerosis occurred so far at the cost of negative or low growth of labour productivity in many EU countries. This prevents workers being compensated for the higher turnover risk they face.

The increase in job to job mobility reported in Section 3 does not necessary comes with a reduction in workers' perceptions. In fact, the effects of job-to-job mobility on workers' welfare depends mainly on whether wage setting institutions impose a steep wage tenure profile, as the simple accounting model of **Box 2** makes clear. The increase in mobility indeed has two direct effects on workers' welfare. One the one hand, it increases the probability of job loss. On the other hand, it increases the employability if a job destruction shock were to hit the worker. These two effects work in different directions and typically lead to an ambiguous effect of mobility on workers' welfare. As discussed in **Box 2**, the steeper is the wage tenure profile, the larger are the costs relative to the benefits of increased mobility. In most European countries wages are centralised and highly correlated with tenure. Decentralised, firm-level wage setting could make it more responsive to productivity, while centralised wage agreements tend to reward automatic adjustments of wages to tenure.

Overall, Europe is still stuck half way across the river of labour market reforms. Pressures to go back to the old system are strong, but governments should resist this pressure, as this would lead to a huge rise in unemployment. Moving along the flexicurity trade-off can help reducing political opposition to reforms. Wading through the turbulent river of labour market reforms may be a painful process, but going back is not an option

Box 1. *The flexicurity tradeoff*

Define the asset value of employment as W and let the worker face an involuntary separation with probability δ . When a δ shock hits the worker he or she loses the job and become unemployed, yielding an asset value U , where $U < W$. Wages, the flow value of employment, are based on a Nash bargaining rule. The outcome is a weighted average of the unemployment benefit, b , and the productivity of a job, y , where weights are provided by the workers bargaining power $0 < \beta < 1$. Nash bargaining also makes wages for insider increasing in firing taxes, F .

$$(r + \delta) W = b(1 - \beta) + \beta y + rF + \delta U \quad (2)$$

As shown by equation (2), the value of employment is, via Nash bargaining, increasing in both, unemployment benefits, and firing taxes. Holding W constant it is therefore possible to define a family of negatively sloped indifference curves as those depicted in Figure 11 in the b, F space. In words, there is a trade-off between generosity of unemployment benefits, parameterized by b , and strictness of employment protection, parameterized by F . Reforms as those discussed in Section 4 of the paper reduced both b and F , moving workers, even those with a permanent contract, to a lower indifference curve, as indicated by the dotted line in Figure 12.

BOX 2 DISSATISFACTION AND WAGE TENURE PROFILE IN A TWO PERIOD MODEL

Consider an employed worker that face a two period job. The worker discount the future at a rate $\beta < 1$. In the first period the wage is given by $w_1 = w(1-\gamma)$ while in the second period is given by $w_2 = w(1+\gamma)$. In other words, γ is a parameter that encodes the wage tenure profile of the job. At the end of the first period, the worker faces an involuntary separation with probability δ . If a δ shock hits the worker he or she loses the second period wage. Conditional on a δ shock, the worker faces a probability α of finding another job. Obviously, if he or she finds a new job will have to get the first period wage $w(1-\gamma)$. The outside option in the second period is the unemployment benefit, b . If we indicate with W the present discounted value of a job, its expression reads

$$W = w(1-\gamma) + \beta[\delta\alpha w(1-\gamma) + \delta(1-\alpha)b + (1-\delta)w(1+\gamma)]$$

A viable labour market obviously requires that $w(1-\gamma) > b$, so that the first period wage is larger than the unemployed income. Let us assume that the worker faces an increase in mobility, which can be recorded either by an increase in δ and/or an increase in α .

Few steps of simple algebra show that an increase in job destruction reduces the value of the job.

$$dW/d\delta = -\beta(1-\alpha)[w(1+\gamma) - b] < 0$$

This is not surprising. The result we are mainly interested in is the effect of the wage tenure parameter γ on the worker welfare loss induced by mobility. It is easy to show that

$$dW/(d\delta d\gamma) = \beta(1-\alpha)w < 0$$

Result 1: *The steeper is the wage tenure profile, the larger is the loss associated to an increase in mobility*

An increase in mobility works also through an increase in the job finding rate.

$$dW/d\alpha = \beta\delta[w(1-\gamma) - b] > 0$$

This simply suggests that an increase in the job finding rate increases worker's welfare. Further, we have that

$$dW/(d\alpha d\gamma) = -\beta\delta w < 0$$

***Result 2:** The steeper the job finding profile, the lower the gain of the increase in the job finding rate.*

REFERENCES

- Bentolila, S. and G.Bertola (1990) "Firing Costs and Labour Demand: How Bad is Eurosclerosis?", *Review of Economic Studies*, 57, 381-402.
- Blanchard, O. and P.Diamond (1990) *The Flow Approach to European Unemployment*, Brooking Papers on Economic Activity.
- Blanchard, O. and J.Wolfers, (2000). "The Role of Shocks and Institutions in the Rise of European Unemployment: The Aggregate Evidence," *Economic Journal*, 110, pp. 1-33.
- Bean, C. (1994). "European unemployment: A survey," *Journal of Economic Literature*, 32:2, pp. 573-619.
- Layard, R., Nickell, S. and Jackman, R. (1991 and 2005). *Unemployment*, Oxford University Press, New York.
- Messina, J. and Vallanti, G. (2007). "Job Flow Dynamics and Firing Restrictions Evidence from Europe", *The Economic Journal*, 117, pp. 279-301.
- Mortensen, D. and Pissarides, C. (1994). 'Job Creation and Job Destruction in the Theory of Equilibrium Unemployment', *Review of Economic Studies*, vol. 61(3), pp. 397-415.
- Mortensen, D. and Pissarides, C. (1999a). 'Unemployment Responses to 'Skill-biased' Technology Shocks: The Role of Labour Market Policy,' *Economic Journal*, vol. 109(455), pp. 242-265.
- Nickell, S. (1979). "The Effects of Unemployment and Related benefits on the Duration of Unemployment," *Economic Journal*, 89(353), pp. 34-49.
- Nickell, S. and Layard, R. (1999). "Labour market institutions and economic performance," in O. Ashenfelter and D. Card eds., *Handbook of Labour Economics*, Vol. 3B, 3029-84, Amsterdam, North Holland.
- Nickell, S., Nunziata L. and Ochel W. (2005), "Unemployment in the OECD since the 1960s. What do we know?", *The Economic Journal*, 115, 1-27. Nickell (1997).
- Pissarides, C. (2000). *Equilibrium Unemployment Theory*. Cambridge USA: MIT Press.
- Shorrocks, A, (1978), "Income inequality and income mobility," *Journal of Economic Theory*, Elsevier, vol. 19(2), pages 376-393, December.
- Snower D. and G. de la Dehesa (eds.) (1996), *Unemployment policy*, Cambridge: CEPR and Cambridge University Press.

Annex

Radical Reforms of Employment Protection Legislation in Europe in the period 1986 – 2005

Finland

1991: Individual employer's contributions are made independent of the lay-off record of the firm concerned.

France

1993: Statutory requirements are introduced concerning the contents of social plans. If there is no social plan or the measures proposed are inadequate, the redundancies will be considered invalid. Law 27/1/1993 nr.93-12. In 1995 the Court de Cassation will interpret the 1993 legislation restrictively.

2004: New rules concerning collective dismissals (Fillon Law):

- 1) firm-level agreements can now modify the procedure that must be followed in case of collective dismissal;
- 2) modification of the threshold that triggers a collective dismissal procedure;
- 3) shortening of the collective dismissal procedure and shortening of the period during which employees or unions can oppose the dismissal;
- 4) restrictions to the possibilities of employees' reintegration when the judge deems the efforts of the firm in terms of placement or training not large enough;
- 5) Changes in the placement and training requirements for large and small firms.

Germany

1993: The notice period for blue-collar workers is extended and aligned with those of white collar workers.

1996: A new law comes into force liberalising employment conditions: The employment threshold, at which EPLs applies, is increased from 5 to 10 employees (on a full basis) per firm. Legal conditions covering dismissals are relaxed.

1999: The new government reintroduces full dismissal protection for all workers who are hired in companies with more than five employees. The former government had limited comprehensive dismissal protection to companies with more than 10 employees. In addition, the new government extends the so-called "social criteria" (i.e. age, length of service or family situation) which must be taken into account by employers in the event of redundancies. Redundancy payments will no longer be used as subsidies for dismissals.

2003: New rules on dismissals, severance payments and the use of short-term contracts come into force (Protection against Dismissal Act - *Kündigungsschutzgesetz, KSchG*):

- 1) Simplification and reduction in the number of selection criteria to be considered by the enterprise in case of dismissals for operational reasons (now limited to disability of the employee, job tenure, age and presence of dependants in the household). Employees with special skills and employees necessary to maintain a well-balanced structure of the workforce can be excluded from social criteria for dismissal;

2) Introduction of the possibility for employees facing dismissal for operational reasons to choose between seeking legal action against the dismissal or accepting a severance payment (equal to half a month's earnings for each year employed);

3) The threshold number of employees above which dismissal protection legislation is binding is raised from 5 to 10 employees with regard to new hirings (apprentices are not counted and part-time employees are only counted proportionally). Employees in companies with more than five but not more than 10 employees will keep their statutory protection if employed before 1 January 2004;

4) Liberalisation of the use of short-term contracts (up to four years without giving reasons, rather than maximum two years) for newly created enterprises during the first four years after their start-up.

Greece

2004: Regulation of fixed-term contract job protection conditions for the private sector workforce (Presidential Decree 180/2004). Under the new provisions:

1) Workers may be employed on fixed-term contracts to meet standing, permanent needs of the enterprise;

2) Workers on fixed-term contracts must have completed 24 months of actual employment or three successive renewals of their initial fixed-term contract in order to be considered as having an open-ended contract;

3) For a fixed-term contract to be renewed, the time since expiry of the previous contract may not exceed three months in public utilities and services and 45 days in the rest of the private sector;

4) The exceptions that prevented certain categories of workers from converting fixed-term contracts into open-end contracts have been abolished, except for special conditions;

5) The previous precondition of objective reasons for renewal of fixed-term employment contracts has been substantially restricted.

Italy

1997: "Treu Package" is enacted: reduction of the drastic sanctions in case of violation of the fixed term contracts' discipline (conversion of fixed-term contract into an open-ended one), which only applies to serious cases. Legalisation of temporary work agencies. The training contract can be extended from 2 to 4 years in Southern Italy, in case of a change into a permanent contract. The term of the apprenticeship contract can vary across sectors. "Atypical" labour contracts are encouraged by reducing social security contributions and pension provisions and by removing automatic transformations of fixed term contracts into open-ended ones. The package eases regulation of new apprenticeship (*nuovo apprendistato*) and work-training contracts (*contratto di formazione lavoro*) and sets incentives for on-the-job training (stages), temporary work via private agencies (*lavoro interinale*) and intra regional labour mobility (*assegni per la mobilità geografica*).

Netherlands

1995: The government decides to ease dismissal procedures. According to the new rules, an employer can dismiss an employee at the same time or even before asking permission to the director of the Public Employment Office.

Portugal

1991: Firing restrictions are eased, through a wider range of admissible layoffs.

1996: Government, employers' associations (AIP) and trade unions sign the Strategic Social Pact. It includes: a wider use of atypical work contracts; in the public sector, fixed term contracts can, under special circumstances, be extended beyond the normal time limits, before being automatically transformed into a permanent contract; incentives on using temporary employment agencies; stronger sanctions against firms employing children or false self-employed workers.

Spain

1994: Individual dismissals are eased: zero days of notice is required when the length of the contract is below 15 days for blue collar workers or below 1 month for white collar workers. Moreover, in case of objective dismissal, the notice period is: one month when the length of service is below one year, 2 months when the length of service is between one and two years and 3 months for two or more years of service.

Collective redundancies: firms can start a collective dismissal procedure if the dismissal affects from 10 workers to 30 percent of the work force, depending on the firm's size. The legally acceptable reasons for collective dismissals have been extended to include production and organisational changes. Law 19/5/1994 nr.11.

1997: The reform extends the reasons that may give rise to an individual dismissal. It includes the possibility of staff adjustments with the aim of overcoming problems related to a lack of competitiveness. Decree 17/5/1997 nr.8.

Introduction of a new kind of permanent contract with reduced severance payments: payment for unfair dismissal is reduced to 33 days per year of seniority for new permanent employment contracts (intended for young and disadvantaged workers), with a maximum of 24 months wages. Decree 17/5/1997 nr.8.

Creation of a new contract with a training certificate. In order to give additional incentives to the use of new permanent contracts, the Government lowered the employers' share of contribution rate for workers under such contracts. The reduction only applies the first 2 years of the contract and varies between 40 and 60 per cent of the standard share. Certain types of fixed-term contracts are suppressed. These contracts may have a higher contribution rate (1% higher) for unemployment coverage.

Radical Reforms of Non-Employment Benefits in Europe in the period 1986-2005

Belgium

2003: Reform of 'service vouchers' scheme (*titre-services/ dienstencheques*), which subsidises the employment of people to carry out household tasks. The scheme: 1) will be managed at federal level; 2) will be enlarged and made more flexible, with the number of available vouchers significantly increased; 3) will be restricted to employing people to perform cleaning, ironing, shopping and transport of people with mobility difficulties. 4) A tax deduction will be introduced, while the cost of the vouchers will not change. The cost of the service voucher to the user is € 6.2 per hour, but taking into account a tax deduction of € 4 net, the real cost is € 19.47.

Denmark

1994: "A comprehensive Labour Market Reform is approved by the Parliament: The maximum duration of unemployment insurance benefits is limited to seven years." The Unemployment Benefits period is split in two (four plus three years) with full-time activation through job offers, training and education compulsory in the second period. The possibility of renewing entitlements to Unemployment Benefits by participation in active programmes is abolished. Policy implementation is decentralised to regional labour market authorities.

1996: "Another Labour Market Reform is approved: Eligibility criteria for access to Unemployment Benefits are tightened (compulsory activation of 13 weeks of unemployment for youths below 25 years of age or 52 weeks for all above 25 years)." The minimum age for accessing Unemployment Benefits is raised from 17 to 19. The maximum duration of Unemployment Benefits is lowered to 5 years.

2004: Strengthening of the activities of PES and municipalities, concerning upgrading of skills and competence development for persons with little education and ready to take up a job and creation of new placement units targeting weak groups, including people in need of flexi-jobs and vocational rehabilitation.

France

2004: Provision of one million 'employment starter contracts' (*contrats d'activité*, CDA), combined with systematic individual support, over a five year period, for people who have been minimum integration income (RMI) and specific solidarity allowance recipients for six months, and to people receiving single parent's allowance. This contract consists of 26-35 hours' employment per week, split between work and training, with working time being paid at the minimum wage (SMIC) rate. The employer will receive a flat-rate state subsidy;

Setting-up of a clearer and better coordinated range of local services for the most vulnerable. Creation of 300 local employment centres (*maisons de l'emploi*) by 2009, that will: identify quantitative and qualitative job needs; provide a structure for training; ensure the monitoring of unemployed people in difficult circumstances; bring together in a single 'public-interest partnership' (*groupement d'intérêt public*, GIP) all relevant parties (the National Employment Agency, ANPE, and the Associations for Employment in Industry and Commerce, ASSEDIC) which are responsible for paying out unemployment benefit at departmental level. A

single file will now be used for each job-seeker. ANPE's monopoly over job placement is to be abolished, and unemployed people will be monitored more effectively and checked up on more frequently. The PES will be opened up to new private job placement operators, including temporary employment agencies.

New special scheme for youth employment (Youth-in-Business Contracts - *Contrat jeune en entreprise*): each of the 800,000 young unqualified unemployed people aged between 16 and 23 will be allocated an individual contact person and the 100,000 experiencing the greatest difficulty in finding employment will get extra assistance. In the private sector, 350,000 young people will receive training in the form of work experience alternating with study (under an apprenticeship or a 'professionalization' contract), and there will be as many state-subsidised contracts. An 'access pathway' to jobs in the local and regional government, hospital and central government civil service (*parcours d'accès à la fonction publique territoriale, hospitalière et d'Etat*, PACTE) will enable 100,000 young people from disadvantaged neighbourhoods to be recruited into the civil service, not through open competitions as usually happens, but via combined study and on-the-job training programmes.

Germany

2003: 12 months of unemployment insurance contributions requirement introduced for eligibility to unemployment benefits, also for seasonal workers and self-employed people or people caring for a relative at home. The latter have to pay contributions on a voluntary basis in order to maintain or to reach their entitlements. Sanctions are tightened and streamlined;

2003: Reform of the Federal Employment Service (reorient the organisational structures towards the provision of job placement service, simplification of benefit entitlement rules) which will be renamed and re-structured as the Federal Employment Agency. The relationship between the federal government and the federal employment agency will be more modern and more effective than in the past: an agreement will be reached on general policy guidelines and the federal government will no longer seek to control the agency by means of regulatory micromanagement

2004: Merger of the unemployment assistance scheme and the social assistance scheme into the Unemployment Benefit II Programme, leaving them both at approximately at the lower level of social assistance (up to € 345 per month in the first 6 months of 2005 for singles or single parents in Western Germany and € 331 in Eastern Germany, plus cost of "adequate" housing).

Cut in the duration of unemployment benefits. From 2005 on, reception of the full unemployment pay (60-67% of previous salary: *Arbeitslosengeld I*) is restricted to 12 months in general and 18 months for over-55-year-olds. This is now followed by (*Arbeitslosengeld II*) a usually much lower unemployment pay, if the claimant fits the requirements (depending on savings, life insurance and household income).

Tightening of job acceptance requirements for eligibility to unemployment benefits. Recipients of the new benefits will be obliged to accept any legal job offer, regardless of the level of pay. If they don't, unemployment benefits are reduced for a limited time (30% less of the standard transfer payment for a period of 3 months) and the limited supplementary payment is withdrawn. If there are repeated violations of any obligations, unemployment benefit II is eliminated entirely. If individuals under 25 years of age reject a job, they receive no transfer payment at all for 3 months.

Planned reform of the job agencies: special case managers will provide active support, integrating all players of the local labour market and creating special integration services in order to create the prerequisites that will help find better jobs more swiftly, in particular for the long-term unemployed.

Ireland

2004: Extension nationwide of the High Support Process programme, to assist employment service officers in implementing a range of responses for clients who are experiencing personal barriers in progressing from unemployment to work. This support is tailor-made and arranged in consultation with other relevant Departments, so that the specific needs of an individual can be addressed to facilitate entry to the labour market.

Italy

2005: Total duration of ordinary unemployment benefit is raised from 6 to 7 months for workers aged under 50 years and from 9 to 10 months for workers aged 50 or more. The level of ordinary unemployment benefits is raised from 40% to 50% of reference salary for the first six months and is set at 40% during the seventh month for workers aged under 50 years. The level is raised to 50% of reference wage (from 40%) for the first six months and is set at 40% for the following three months and 30% during the tenth month for workers aged 50 or more. Definition of the conditions for the immediate implementation of those measures (art. 13) of Law 276/2003 which provide for incentives to private employment agencies that ensure the insertion or reinsertion in the labour market of difficult to employ persons (so-called "*presa in carico*"). To this effect, the need for Regions to legislate for making such a measure effective has been dropped.

Netherlands

1987: The two key parts of the previous Unemployment Benefits scheme (WW, unemployment insurance and WWW, unemployment assistance) are combined and eligibility requirements are tightened. The maximum duration of benefits is more closely linked to age and length of the contribution period.

The Revision of the Social Security System Act is enacted to reduce the incentive to obtain a disability pension rather than an unemployment benefit. Criteria governing access to disability pensions are tightened. Claimants who are less than 80% disabled will receive a pro-rated disability pension supplemented by an unemployment related component decreasing over time. The total benefit will decline over time as the unemployment-related portion of the benefit falls, with a maximum benefit period of five years. Eligibility requirements for unemployment benefits are tightened: the worker obliged to accept an appropriate job even outside his geographical region.

Spain

1992: A decree to redress fiscal slippage approved by the Government: the minimum contribution period for eligibility is raised from 6 to 12 months. The duration is reduced by about one third. Lump-sum Unemployment Insurance schemes offering lump-sum payments are phased out. The system of minimum unemployment assistance allowances is reformed: it now provides those who have worked for at least three months but are not eligible to unemployment insurance

with 75 per cent of the minimum wage. The amount is reduced by over 10 per cent. The unemployed people are no longer allowed to take up the unemployment insurance payment in a single instalment in order to start a new business as a self-employed worker.

Sweden

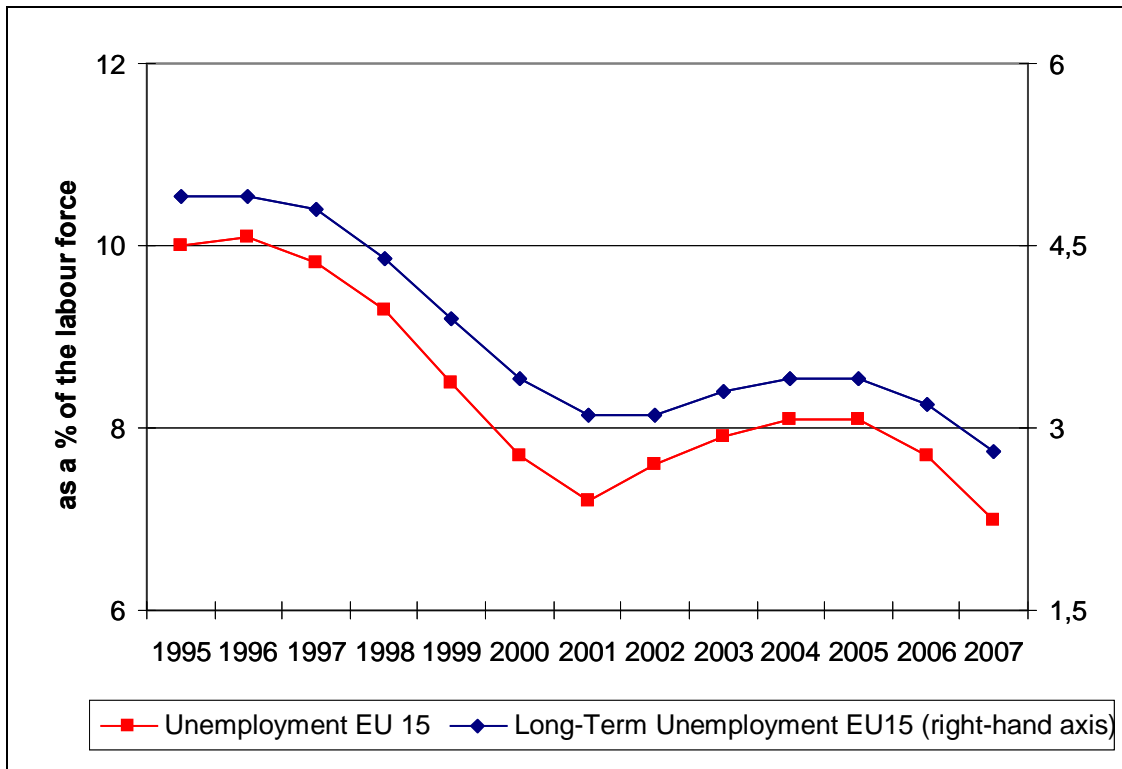
1997: The Employment Bill repealed before it entered into force and the revised proposal forwarded in March:

- 1) The qualifying period is increased from 5 to 6 months (it had been proposed 9 months);
- 2) The proposal for an upper limit of the duration is dropped;
- 3) The underlying structure of the Unemployment Benefit is changed: the benefit now consists of an earning-related part and a flat rate component;
- 4) The maximum Unemployment Insurance (earning-related component) benefit is raised;
- 5) The possibility of re-qualifying for benefits through participation subsidised jobs no longer available.

United Kingdom

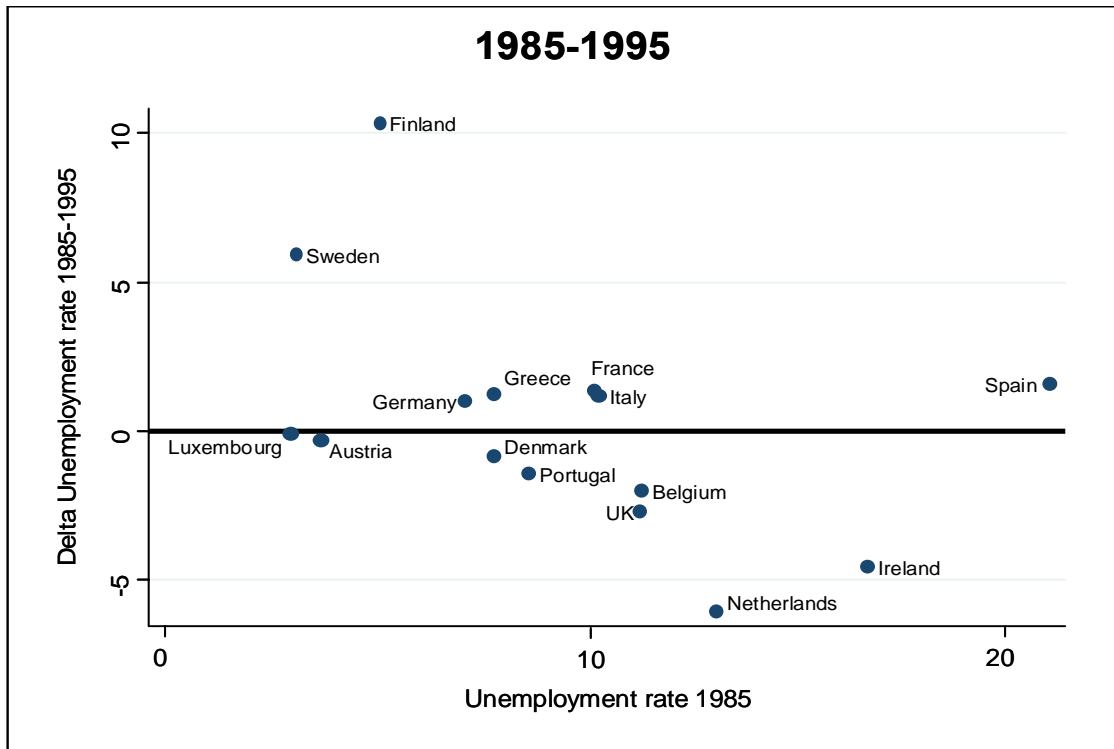
1996: Unemployment Benefit is replaced by the Job-Seekers' Allowance. The duration of the Job Seekers Allowance is halved (from 12 to 6 months). The replacement rate of the Job Seeker Allowance is lowered. The Income Support scheme is replaced by the means-tested component of the JSA as a safety-net with a marginal withdrawal rate of 100 per cent.

Figure 1 – Evolution of unemployment and long-term unemployment in the EU15



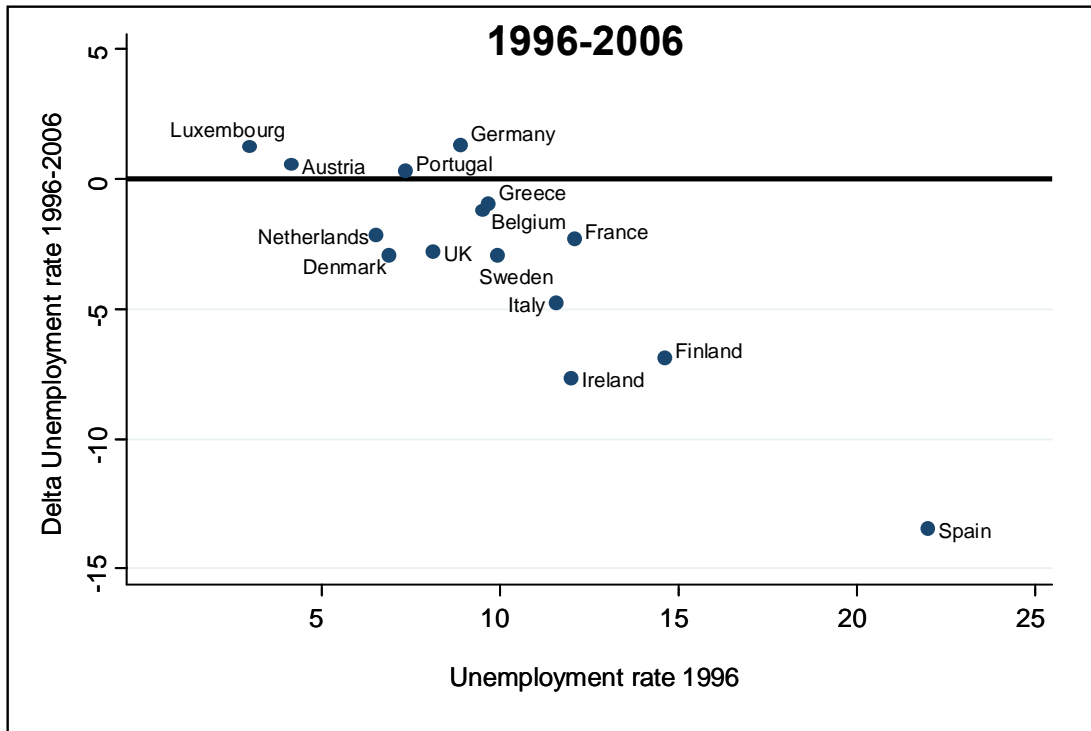
Source: Eurostat. <http://epp.eurostat.ec.europa.eu>

Figure 2 – Individual countries evolutions: 1985-1995



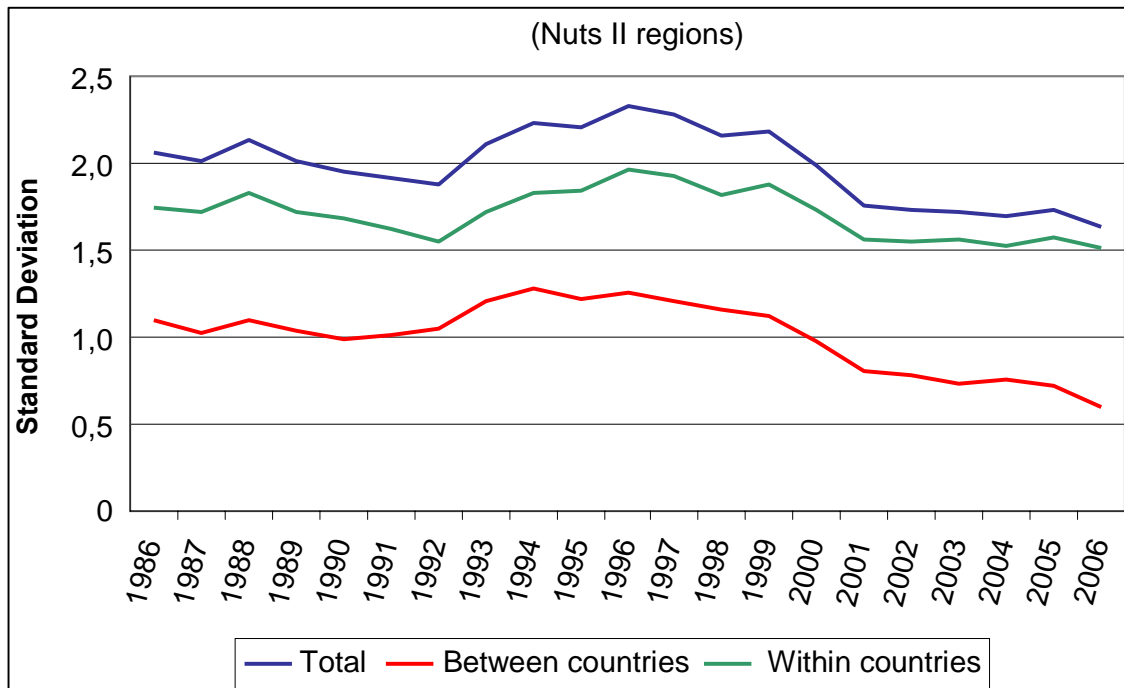
Source: *European Labour Force Survey*.

Figure 3 - Individual countries evolutions: 1996-2006



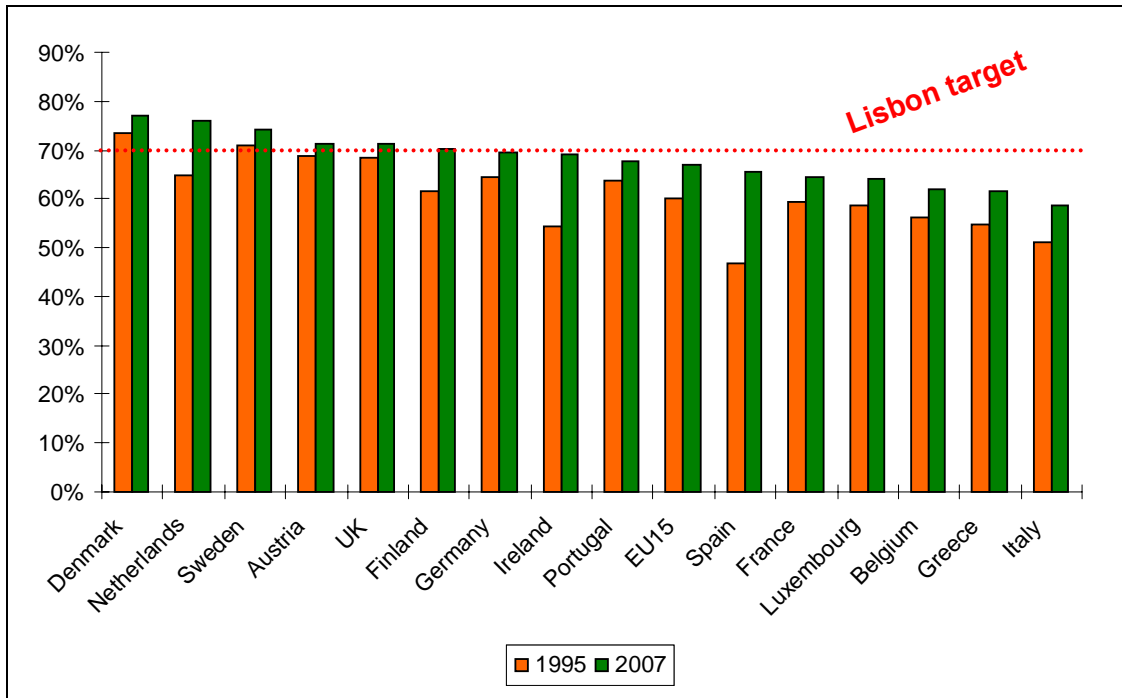
Source: *European Labour Force Survey*.

Figure 4 – Within and between countries variation in unemployment rates



Source: Eurostat. <http://epp.eurostat.ec.europa.eu>

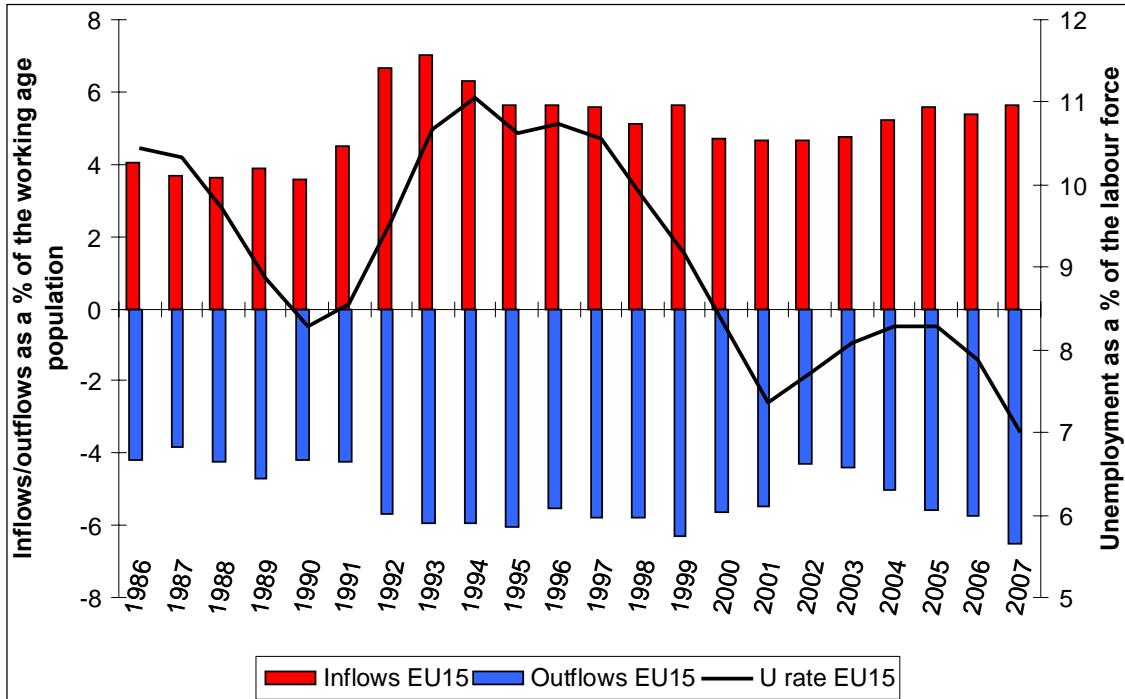
Figure 5 - Employment rates in the EU15 and the distance from the Lisbon Employment Target (70%)



Source: Eurostat. <http://epp.eurostat.ec.europa.eu>

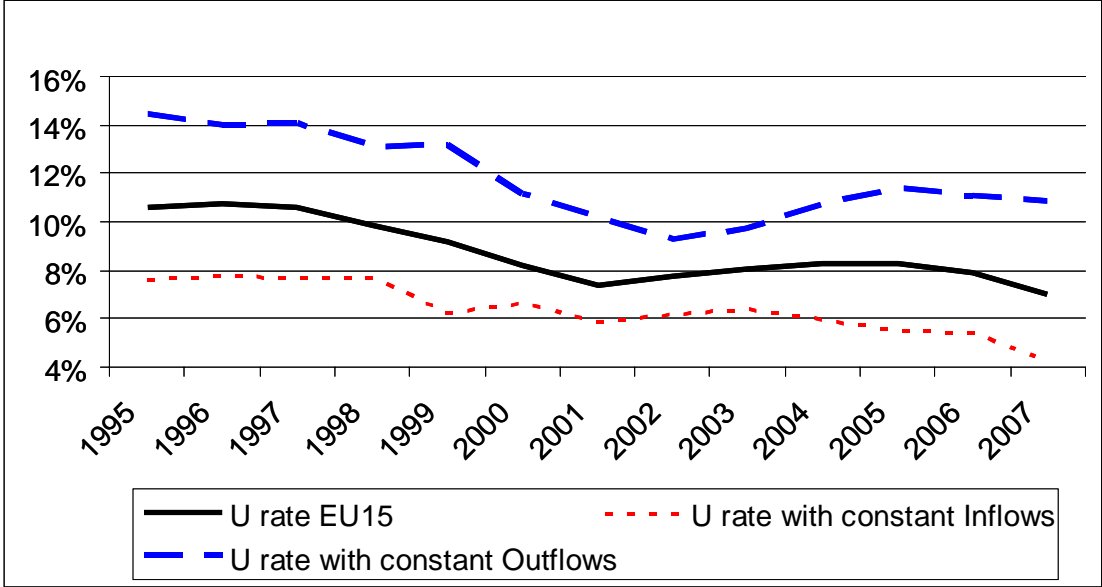
Note: Employment rate defined as Employment over Working Age Population.

Figure 6 – Proxy unemployment inflows and outflows as a proportion of the population in working age



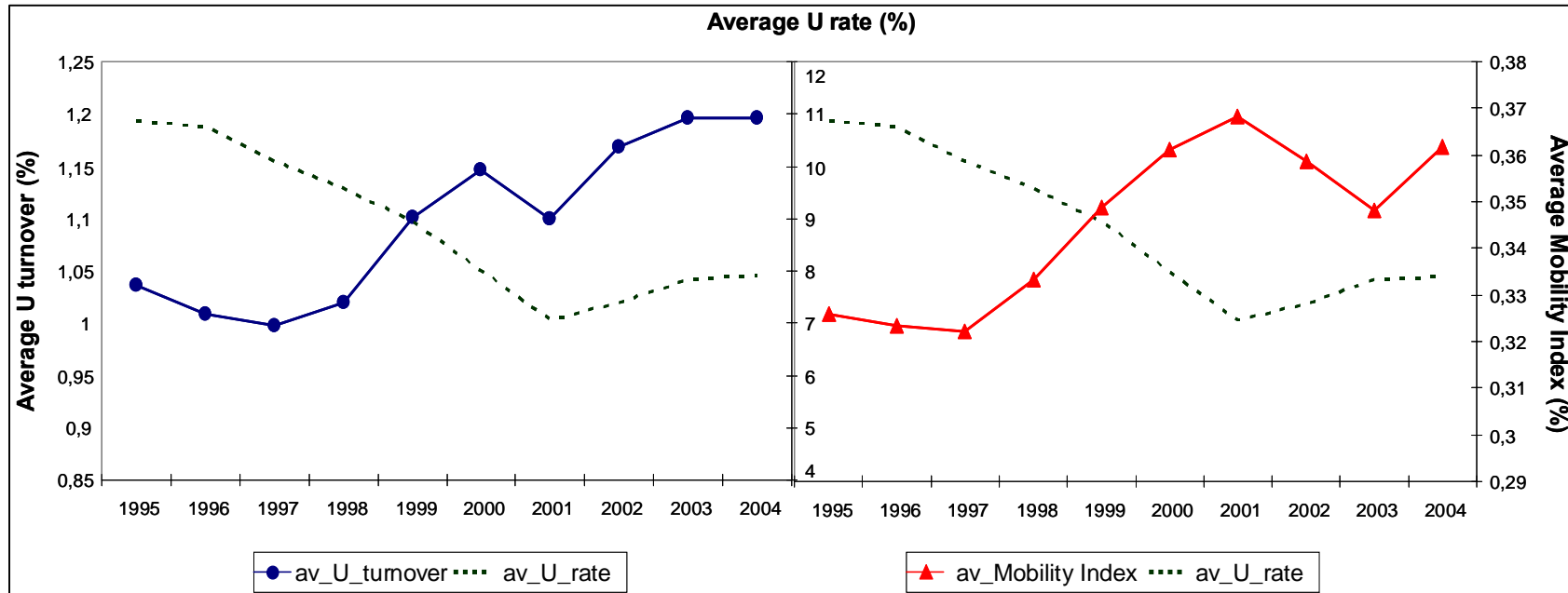
Source: Estimates based on the OECD Unemployment Duration Database. See the text for details on the methodology to estimate unemployment inflows and outflows.

Figure 7 - Unemployment rates for the EU15 at constant 1980's inflows and constant 1980's outflows



Source: Estimates based on the OECD Unemployment Duration Database, holding alternatively the unemployment inflow to the working age population and the unemployment outflow to the working age population rates constant at their average level of the 1980's. See the text for details on the methodology to estimate constant inflows and constant outflows unemployment.

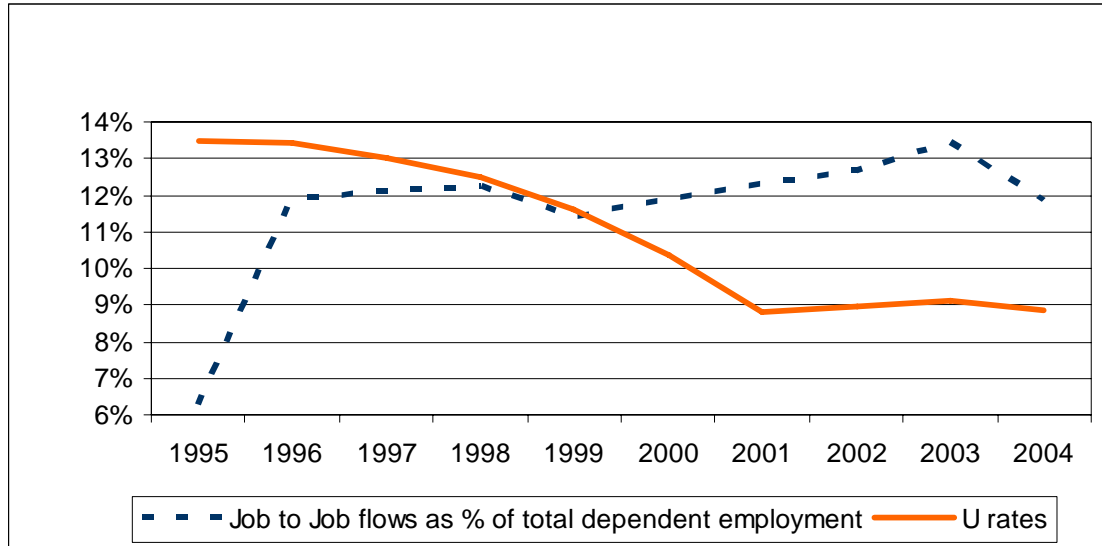
Figure 8 – Evolution of unemployment turnover and scalar measures of mobility in group of 9 EU Member States⁽¹⁾



Source: European Labour Force Survey.

Notes: (1) the following EU countries have been considered for which micro-data from ELFS is available: Belgium, Denmark, Spain, Finland, France, Greece, Italy, Luxembourg and Portugal. Weights are based on total national population.

Figure 9 - Job-to-job shifts as a fraction of dependent employment in 9 EU Countries⁽¹⁾

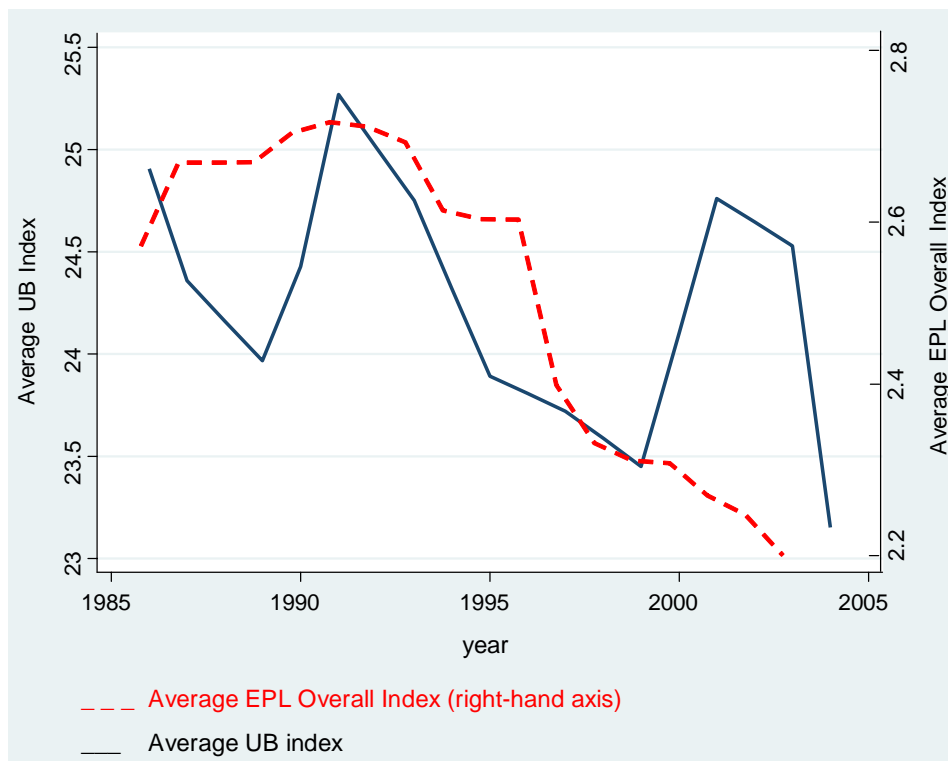


Source: *European Labour Force Survey*.

Notes: Job-to-job shifts are obtained as difference between total hirings and inflows into employment.

(1) Data refer to the following EU Member States for which micro-data is available: Belgium, Denmark, Spain, Finland, France, Greece, Italy, Luxembourg and Portugal. Weights are based on total national population.

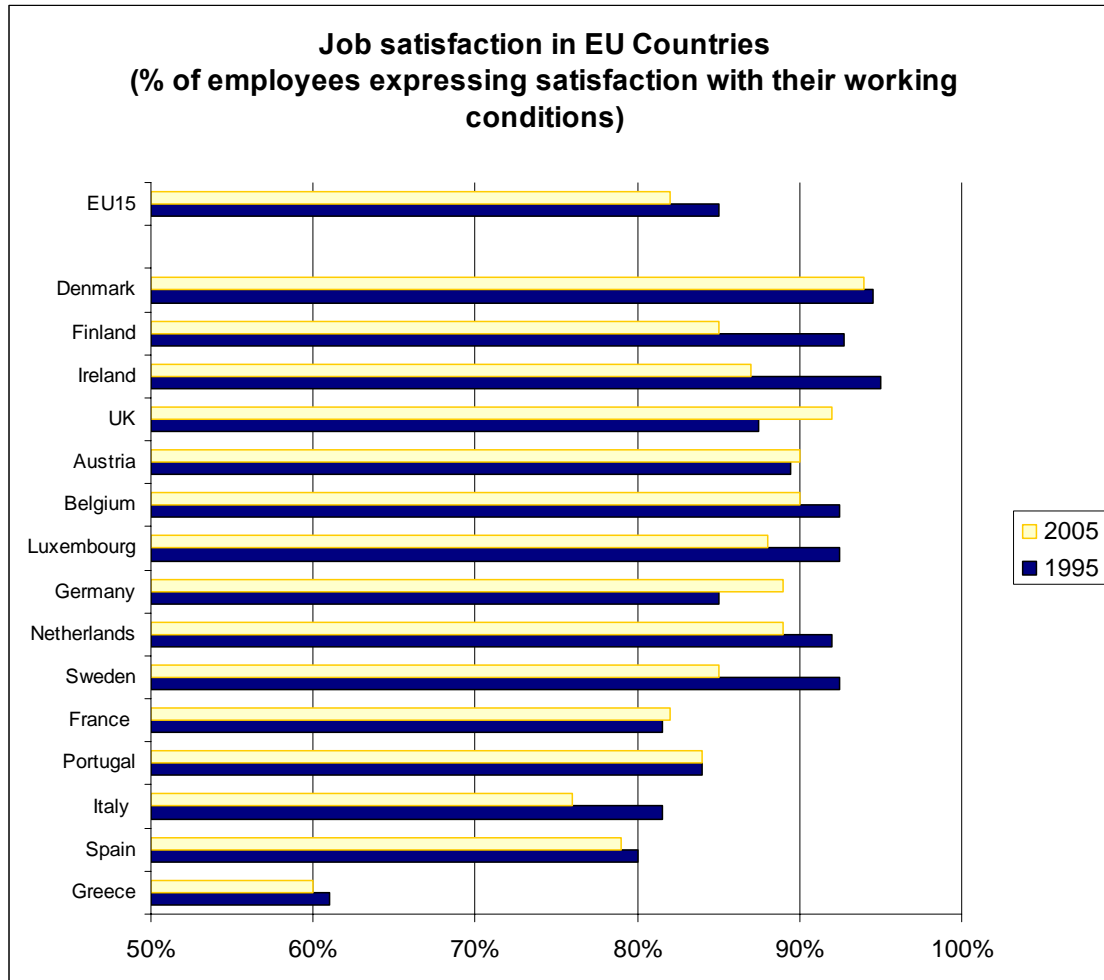
Figure 10 – Evolution of the average UB and EPL indexes



Source: OECD. www.oecd.org

Notes: (1) The average UB index is defined as the weighted average of the gross unemployment benefit replacement rates for the only countries for which data are available: Austria, Finland, Germany, Sweden and United Kingdom. For further details, see OECD, “Benefits and wages: gross replacement rates”. (2) The average Overall EPL strictness index is defined as the weighted average of the summary measures for regular and temporary contract workers of EU15. (3) Weights are based on total national population.

Figure 11



Source: European Working Conditions Surveys. www.eurofund.europa.eu

Figure 12 – The Flexicurity tradeoff

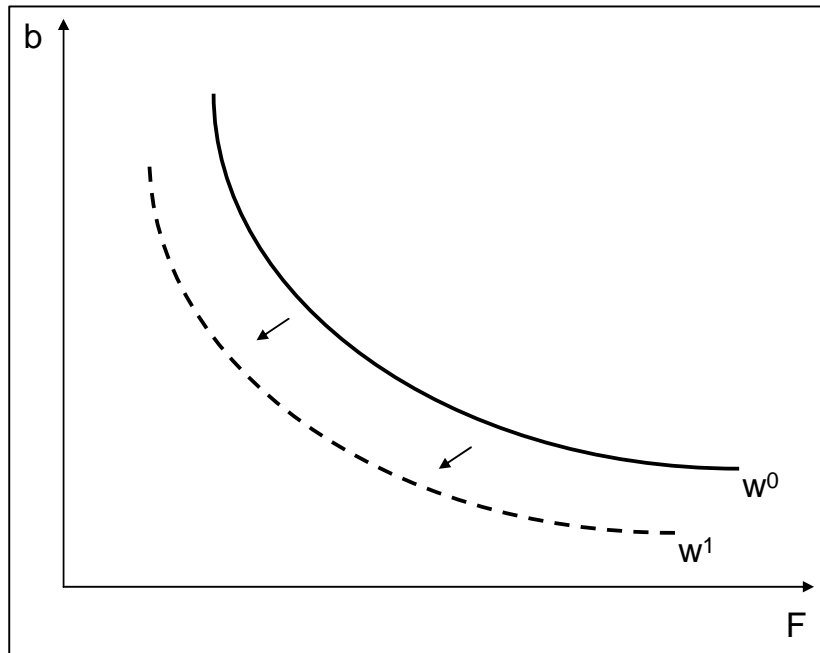


Table 1- Number of discouraged workers

Year	Discouraged workers (thousands)	Unemployed individuals (thousands)
1994	424	13962
1995	431	11487
1996	390	11399
1997	442	11592
1998	502	10446
1999	344	9425
2000	425	8346

Source: European Labour Force Survey

Note: Data refer to the following EU countries for which data about discouraged workers are available: Belgium, Denmark, France, Greece, Ireland, Italy, Spain and Portugal.

**Table 2 - Shift-share analysis of ageing and migration effects
in unemployment dynamics**

	ΔU as a % of WAP (1995 - 2007)	Ageing effect (%)	Migration effect (%)
Austria	0,22	-20,2	25,5
Belgium	-0,79	-27,2	2,8
Denmark	-2,49	-6,1	8,0
Finland	-7,07	-6,3	0,6
France	-2,34	-12,8	-2,0
Ireland	-4,14	-2,7	21,7
Italy	-2,93	-19,8	n.a.
Luxembourg	0,96	-5,0	8,9
Netherlands	-2,46	-12,2	-2,1
Portugal	1,35	-8,5	2,3
Spain	-7,82	-7,0	3,4
Sweden	-2,06	-5,7	-1,0

Source: European Labour Force Survey.

Notes: Applying the 1995 group-specific unemployment rates to the 2007 shares in the Working age population. Migration and Ageing effects are expressed as a percentage of the (absolute value) change in unemployment (over Working Age Population).

Table 3 - Average Transition Matrices for Spain (Years: 1986-1989 and 2001-2004)

1986-1989	Employment(t)	Unemployment(t)	Inactivity(t)
Employment (t-1)	92,72%	3,99%	3,30%
Unemployment (t-1)	30,81%	62,23%	6,96%
Inactivity (t-1)	2,06%	1,93%	96,00%

2001-2004	Employment(t)	Unemployment(t)	Inactivity(t)
Employment (t-1)	91,80%	4,02%	4,19%
Unemployment (t-1)	44,64%	39,45%	15,91%
Inactivity (t-1)	3,04%	1,74%	95,22%

Source: European Labour Force Survey.

Table 4 - Alternative mobility indexes in EU: 1985-1995 and 1996-2004

	3x3 Shorrocks Mobility Index (%)		2x2 Shorrocks Mobility Index (%)	
	1985-95	1996-04	1985-95	1996-04
Austria	35,2	38,0	11,0	12,1
Belgium	24,9	34,7	7,2	8,5
Finland	36,7	40,3	16,0	17,2
France	34,1	33,5	17,6	13,7
Greece	24,3	21,8	7,1	7,9
Ireland	24,2	29,2	10,3	10,4
Italy	33,1	33,9	10,7	10,8
Luxembourg	36,1	34,8	6,8	6,9
Netherlands	35,4	43,2	14,8	12,8
Portugal	32,2	33,1	9,2	9,5
Spain	26,1	32,3	14,4	15,4

Source: European Labour Force Survey.

Notes: Austria (Data are available only for years 1986, 1993-1995 and 2003), Finland (Data are available for years 1995-2004), France (Data are available for years 1985-2002), Ireland (Data are available for years 1985-1997), Italy (Data are available for years 1992-2004), Netherlands (Data are available for years 1987-1999), Portugal (Data are available for years 1986-2004), Spain (Data are available for years 1987-2004).

Table 5 - Ergodic Estimates of Unemployment

Country	1985-1995		1996-2004	
	Current level of Unemployment (%)	Ergodic level of Unemployment (%)	Current level of Unemployment (%)	Ergodic level of Unemployment (%)
Austria	3,62	5,1	4,07	3,9
Belgium	9,12	8,0	7,90	6,5
Spain	19,70	16,9	14,97	11,6
Finland	8,46	15,2	10,54	9,2
France	10,34	9,7	10,59	9,8
Greece	7,91	8,3	10,27	9,8
Ireland	15,29	15,1	6,31	8,4
Italy	11,25	8,3	10,22	5,9
Luxembourg	2,30	2,1	2,94	2,9
Netherlands	8,35	5,8	4,22	4,0
Portugal	6,19	4,7	5,51	6,1
EU11	9,32	11,6	7,96	8,1

Source: European Labour Force Survey.

Notes: Ergodic unemployment levels are obtained from average transition matrices by imposing the condition $M'x = x$ where x is the ergodic distribution and M the transition matrix.

Table 6 – Fixed-effects panel regressions of mobility indexes on institutions

	Mobility Index (3x3 Matrix)				Mobility Index (2x2 Matrix)	
	(1)	(2)	(3)	(4)	(5)	(6)
Unemployment Benefit - Oecd Index	-0,003 (-6,69)***	-0,003 (-6,71)***	-0,003 (-6,71)***	-0,003 (-6,73)***	0,001 (1,27)	0,001 (1,29)
Employment Protection Legislation - Oecd Index	-0,047 (-7,24)***		-0,046 (-7,19)***			
Employment Protection Legislation (Regular Empl.) - Oecd Index		-0,021 (-2,75)***		-0,023 (-2,64)***	-0,016 (-2,37)***	-0,017 (-2,53)***
Employment Protection Legislation (Temporary Empl.) - Oecd Index		-0,024 (-7,38)***		-0,026 (-7,33)***	-0,003 (-1,20)	-0,003 (-1,28)
GDP growth rate	0,001 (0,78)	0,001 (0,82)			-0,001 (-0,91)	
Total Unemployment (1 year before)			-0,001 (-0,34)	-0,001 (-0,35)		-0,001 (-0,12)
Constant	0,549 (19,2)	0,547 (16,89)	0,552 (19,39)	0,548 (16,91)	0,153 (5,58)	0,153 (5,55)
Number of Observations	588	588	588	588	596	596

Source: *European Labour Force Survey*.

Notes:

1. The number of observations differs in specifications (5) and (6) compared to specifications (1) to (4) as in some countries and years it is not possible to disentangle unemployment from inactivity.
2. Including year dummies from 1985 to 2004 (reference year 1997).

Table 7 – Fixed-effects panel regressions of unemployment turnover on institutions

	Unemployment Turnover			
	(1)	(2)	(3)	(4)
Unemployment Benefit - Oecd Index	-0,016 (-3,10)***	-0,017 (-3,31)***	-0,015 (-2,89)***	-0,016 (-3,13)***
Employment Protection Legislation - Oecd Index	-0,223 (-3,15)***		-0,224 (-3,18)***	
Employment Protection Legislation (Regular Empl.) - Oecd Index		-0,259 (-3,17)***		-0,291 (-3,63)***
Employment Protection Legislation (Temporary Empl.) - Oecd Index		-0,101 (-2,84)***		-0,096 (-2,71)***
GDP growth rate	-0,024 (-2,19)***	-0,021 (-1,91)**		
Total Unemployment (1 year before)			-0,0002 (-2,37)***	-0,0002 (-2,54)***
Constant	2,270 (7,17)	2,620 (7,48)	2,379 (7,38)	2,820 (7,91)
Number of Observations	160	160	160	160

Source: *European Labour Force Survey*.

Notes: Including year dummies from 1985 to 2004 (reference year 1997).

Table 7 – Fixed-effects panel regressions of job-to-job flows on institutions

	Yearly Job to Job Flows as a % of Total Dependent Empl.			
	(1)	(2)	(3)	(4)
Unemployment Benefit - Oecd Index	-0,051 (-1,65)	-0,056 (-1,50)	-0,069 (-2,20)***	-0,069 (-2,22)***
Employment Protection Legislation - Oecd Index	-2,049 (-4,11)***		-1,754 (-3,91)***	
Employment Protection Legislation (Regular Empl.) - Oecd Index		-0,074 (-0,10)		0,764 (1,15)
Employment Protection Legislation (Temporary Empl.) - Oecd Index		-0,979 (-3,85)***		-0,890 (-3,92)***
GDP growth rate	-0,072 (-0,76)	-0,063 (-0,66)		
Total Unemployment (1 year before)			0,001 (3,08)***	0,001 (3,11)***
Constant	18,879 (8,63)	16,206 (6,11)	16,432 (8,24)	12,427 (5,24)
Number of Observations	469	469	461	461

Source: *European Labour Force Survey*.

Notes:

1. In regressions (3) and (4) there are less observations due to missing values on the lagged unemployment series in some countries.
2. Including year dummies from 1985 to 2004 (reference year 1997).

Table 9 – Reforms of employment protection and non-employment benefits (1986-2005)

		Decreasing protection; increasing rewards from participation.				Increasing protection; decreasing rewards from participation.				Total per row	Of which decreasing (%)
		1986-90	1991-95	1996-00	2001-05	1986-90	1991-95	1996-00	2001-05		
EPL	piecemeal	5	7	14	12	8	7	20	18	91	42%
	radical	-	4	4	2		2	1	1	14	71%
NEB	piecemeal	9	24	75	94	10	8	21	19	260	78%
	radical	1	2	3	7	-	-	-	1	14	93%

Source: Frdb Reform Database

Notes: A list of the radical reforms is offered in the Annex.

Table 10 – Yearly transitions from temporary employment in Spain (2003-2004)

Spain 2003-2004	Permanent Contracts	Fixed Term Contracts	Inactivity	Unemployment
Permanent Contracts	97,2	1,1	0,7	1,0
Fixed Term Contracts	4,9	82,6	3,5	9,0
Inactivity	0,4	2,4	93,3	3,9
Unemployment	2,5	20,1	10,4	67,0

Source: Spanish Labour Force Survey.

Table 11 - Characteristics of workers reporting to be satisfied with their working conditions (dprobit regression)

	Job satisfaction
Male	-0,008 (-1,36)
Under 30	-0,018 (-2,64)***
Over 50	-0,002 (-0,20)
Permanent contract worker	0,089 (12,47)***
Permanent contract worker (year 2000)	-0,030 (-4,30)***
Permanent contract worker (year 2005)	-0,045 (-5,76)***
Male (year 2000)	-0,012 (-1,56)
Male (year 2005)	-0,003 (-0,34)
Under 30 (year 2000)	0,011 (1,35)
Under 30 (year 2005)	0,003 (0,30)
Over 50 (year 2000)	0,017 (1,44)
Over 50 (year 2005)	0,003 (0,24)
Number of Observations	40519

Source: *European Working Conditions Survey*. www.eurofund.europa.eu

Notes: Reference category is female, aged 30 to 50 years old, with temporary contract. For this reference group the percentage of those declaring to be satisfied is 85%.