

EMPLOYMENT VOLATILITY, EMPLOYMENT PROTECTION AND UNEMPLOYMENT *

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1. INTRODUCTION

This essay explores the richness of the Portuguese microdata provide for the characterisation of the job creation and destruction processes, and for the analysis of the transitions that occur in the Portuguese labour market⁽¹⁾.

For a long while the general understanding of the functioning of labour markets assumed a strong inertia in employment's adjustment to shocks in the demand of final goods. The image that prevailed in economic research, based on aggregate empirical information, conveyed a gradual and smooth behaviour of the economic aggregates describing the labour market.

However, over the course of the last two decades, the growing use empirical researchers in the field of Labour Economics made of microeconomic databases — i.e., those electing the worker and/or the firm as the unit of observation — allowed to change radically the former perception of the labour market dynamics.

Behind the apparent smoothness conveyed by aggregate data, recent research based on microdata brought into light a picture of unexpected turbulence and of a very dynamic labour market functioning.

However, it should be stressed that the shift in the perception of the intensity of labour market flows largely preceded the current discussion around the effects on the labour market brought by international trade intensification and “globalisation”. Moreover, academics do not associate the idea of strong employment volatility to a recent trend characterising the economies, but consider it a structural phenomenon that characterises the labour market functioning already for quite a long time. Nevertheless, it is debatable whether em-

ployment volatility (job precariousness or instability) has worsened recently. Empirical evidence available for the United States of America, however, does not confirm the existence of a sustained increasing trend in job volatility (see Wanner and Neumark, 1999).

In this context, legislation on job protection in the Portuguese case is particularly important. The present analysis will suggest that this legal framework influences decisively labour adjustment costs, thus influencing the nature of the labour market itself. Therefore, stress shall be laid on the impact of firing costs on the intensity of flows of workers and on the equilibrium level of the unemployment rate. Although fixed-term contracted workers account for not more than 15 per cent of wage earners, this category absorbs more than half of employment adjustments. Therefore, we shall analyse the role of labour contracting regulation on employment dynamics and on workers' wage developments.

* The opinions of this paper represent the views of the author, they are not necessarily those of the *Banco de Portugal*.

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(1) The *Banco de Portugal* thanks the *Instituto Nacional de Estatística* for having made available individual records of the Employment Survey, and the Statistics Department of the *Ministério do Emprego e Solidariedade* for the microdata of the *Quadros de Pessoal*.

Table 1
ANNUAL JOB FLOWS (1983 - 1994)

	Job creation			Job destruction			Turnover rate (A+B+C+D)
	Entry (A)	Expansion (B)	Total (A+B)	Exit (C)	Contraction (D)	Total (C+D)	
Manufacturing industry	0.053	0.061	0.114	0.055	0.063	0.118	0.232
Total economy	0.078	0.071	0.149	0.064	0.073	0.137	0.286

Source: Blanchard and Portugal (1999).

Notes:

(A) Ratio between the number of jobs created as a result of the entry of new establishments into activity and total employment.

(B) Ratio between the number of jobs created as a result of the expansion of existing establishments and total employment.

(C) Ratio between the number of jobs destroyed as a result of the closing of establishments and total employment.

(D) Ratio between the number of jobs destroyed as a result of the contraction of existing establishments and total employment.

2. JOB CREATION AND DESTRUCTION IN PORTUGAL

A conventional manner of carrying out a broken-down characterisation of job dynamics is to measure job flows. Taking the firm (or the establishment) as the reference unit, the measurement of job creation sums the number of jobs created due to the birth of new firms and the number of jobs created by the expansion of existing ones. Conversely, a measure of job destruction sums the counting of jobs foregone due to firm close-ups and jobs destroyed due to employment reduction in labouring firms. Therefore, four different situations account for the size of job flows: expansion, contraction, entries and exists of establishments.

In Portugal, labour market flows measured annually show a similar intensity to those of other OECD economies (OECD, 1996)⁽²⁾. According to the information collected from the individual records of the *Quadros de Pessoal*, in the period running from 1983 up to 1995, job destruction in manufacturing industry (in the economy as a whole) amounted annually to around 11.8 per cent (13.7 per cent) of existing jobs. On the other hand, in manufacturing industry (in the economy as a

whole) 11.4 per cent (14.9 per cent) of total jobs were newly created jobs (see table 1). Jobs destroyed are broken-down into virtually even shares of plant closings (5.5 per cent for manufacturing and 6.4 per cent for the economy as a whole) and contraction of employment (6.3 per cent and 7.3 per cent, respectively). In turn, jobs created are also due, in basically equal parts, to the opening of new establishments (5.3 per cent for manufacturing industry and 7.8 per cent for the economy as a whole) and the expansion of existing plants (6.1 per cent and 7.1 per cent).

It is interesting to notice that in Portugal, as in other economies, the bulk of job creation and job destruction takes place within the same activity sector or the same region, even when considering sectors and regions at a high breakdown level (Carneiro and Portugal, 1998). Indeed, employment flows are basically due to the expansion and contraction of employment and to the closing and opening of plants within the same sector and region, and not to phenomena of sectoral recomposition or regional displacement: while around 84 per cent (86 per cent) of employment flows are within sector (intra-regional), only 16 per cent (14 per cent) are due to inter-sectoral (inter-regional) changes (Carneiro and Portugal, 1998). Also in line with the empirical evidence available for other economies, job turnover drops sharply according to plant size (table 2).

(2) Job flows are calculated from the net job changes occurred in a given establishment between March of one year and March of the following year.

Table 2

JOB FLOWS, MANUFACTURING INDUSTRY (1983 – 1994)

Average establishment size	Entry (A)	Exit (C)	Expansion (B)	Contraction (D)
1 to 19 workers	0.128	0.105	0.086	0.070
20 to 49	0.069	0.076	0.076	0.060
50 to 99	0.047	0.064	0.065	0.058
100 to 249	0.034	0.050	0.058	0.060
250 to 499	0.030	0.045	0.046	0.055
500 to 999	0.016	0.028	0.032	0.050
1000 to 2499	0.004	0.013	0.036	0.053
2500 to 4999	0.000	0.032	0.013	0.060
5000 +	0.000	0.000	0.001	0.083

Source: *Quadros de Pessoal*, calculations made by the author.

Notes:

- (A) Ratio between the number of jobs created as a result of the entry of new establishments into activity and total employment.
 (B) Ratio between the number of jobs created as a result of the expansion of existing establishments and total employment.
 (C) Ratio between the number of jobs destroyed as a result of the closing of establishments and total employment.
 (D) Ratio between the number of jobs destroyed as a result of the contraction of existing establishments and total employment.

However, the relative importance of plant mobility in the distribution of job flows appears as a distinctive feature of the Portuguese labour market, which may be related with the influence job protection legislation on labour demand. This means that the reason behind the strong intensity of job flows due to plant creation and destruction (10.8 per cent — 5.3 plus 5.5 — for manufacturing industry and 14.2 per cent — 7.8 plus 6.4 — for the

economy as a whole, see table 1) when compared with the flow generated by plant contraction and expansion (12.4 per cent and 14.4 per cent) may be the high firing costs enforced by labour legislation (Blanchard and Portugal, 1998).

Another distinctive feature of the Portuguese labour market is the low intensity of quarterly employment flows, when compared with the corresponding annual flows (table 3)⁽³⁾. The natural in-

Table 3

QUARTERLY JOB FLOWS (1983 – 1994)

	Job creation			Job destruction			Turnover rate (A+B+C+D)
	Entry (A)	Expansion (B)	Total (A+B)	Exit (C)	Contraction (D)	Total (C+D)	
Manufacturing industry	0.012	0.020	0.032	0.010	0.029	0.039	0.071
Total economy	0.018	0.022	0.040	0.011	0.028	0.039	0.079

Source: Blanchard e Portugal (1999).

Notes:

- (A) Ratio between the number of jobs created as a result of the entry of new establishments into activity and total employment.
 (B) Ratio between the number of jobs created as a result of the expansion of existing establishments and total employment.
 (C) Ratio between the number of jobs destroyed as a result of the closing of establishments and total employment.
 (D) Ratio between the number of jobs destroyed as a result of the contraction of existing establishments and total employment.

terpretation for the low magnitude of quarterly employment flows is that Portuguese firms do not change significantly their demand for labour in the presence of transitory shocks, contrary to their reaction vis-à-vis shocks that are perceived as being of a permanent nature. Therefore, the observation of a strong persistence of job creation and destruction (i.e., hiring and firing decisions that are not reversed afterwards) (see table 4) is interpreted as resulting from the difficulty in reacting to temporary shocks, which in turn reflects the impact of high costs of adjustment to workers' departure.

3. WORKER FLOWS

The concept of worker flow is closely linked to the phenomenon of job creation and destruction by firms, and is distinct from the concept of job flows. To ascertain this, one only needs to consider a situation where more than one worker may, in a given period of time, rotate by the same job. The inflow of workers comprises total hired workers, while conversely the outflow encompasses all ways in which workers become unattached from firms (firings, retirements, quits etc.). Therefore, the intensity of worker flows reflects their mobility.

The Portuguese labour market is characterised by a very low labour mobility (see table 5). Obviously, a low intensity of job creation and destruction is sufficient to explain weak labour mobility (or worker turnover). However, even when conditioned to job creation and destruction, workforce rotation is low in Portugal. For each job created or destroyed only 1.5 workers rotate (around 60 per cent of the level obtained for the EUA) (table 5).

The low labour mobility is reflected in a range of indicators that allow to characterise the Portuguese labour market as one of the less (if not the least) dynamic (i.e., most stable) in the OECD. Both the average number of jobs over the working life and the average job tenure give a picture of

(3) It should be noted that this sum of quarterly job flows necessarily exceeds annual job flows, since annual flows are obtained from the net change in employment between two periods of time, separated one year from each other, while quarterly flows count the net changes employment records in a given quarter — i.e., the net changes in employment that take place in a given quarter, but are reversed in following quarters, and are hence do not appear in the annual job flows.

Table 4
PERSISTENCE OF JOB CREATION
AND DESTRUCTION
MANUFACTURING INDUSTRY

Job creation	Persistence rate after:			
	1st quarter	2nd quarter	3rd quarter	1 year
	1991	0.763	0.583	0.454
1992	0.757	0.556	0.436	0.347
1993	0.737	0.549	0.451	0.388
1994	0.731	0.590	0.488	0.408
Average . . .	0.747	0.569	0.457	0.375

Job destruction	Persistence rate after:			
	1st quarter	2nd quarter	3rd quarter	1 year
	1991	0.839	0.726	0.626
1992	0.850	0.737	0.647	0.588
1993	0.875	0.766	0.645	0.579
1994	0.869	0.769	0.659	0.602
Average . . .	0.858	0.749	0.644	0.586

Source: "Inquérito ao Emprego Estruturado", calculations made by the author.

Note: The rate of persistence is an indicator of the proportion of jobs created (destroyed) maintained in the following periods.

immobility (see table 6). The same message is conveyed by the proportion of long-term jobs (lasting over 20 years) and by the rate of transition from employment into unemployment, out of labour force or into another job (see table 6). In fact, the rate of transition from employment into unemployment is the lowest in the OECD.

These indications result not only from the weak job turnover but also from the weak incidence of voluntary exits (quits), which are discouraged in the Portuguese labour market by the perspectives of a

Table 5
ANNUALISED WORKER AND JOB FLOWS⁽¹⁾, ESTABLISHMENTS IN BUSINESS⁽²⁾

	Expansion	Contraction	Hirings	Separations	(C+D)/(A+B)
	(A)	(B)	(C)	(D)	
1991	0.102	0.115	0.177	0.188	1.682
1992	0.099	0.124	0.162	0.186	1.556
1993	0.080	0.131	0.126	0.176	1.434
1994	0.084	0.117	0.128	0.159	1.424
1995	0.083	0.104	0.129	0.148	1.476
Average	0.090	0.118	0.144	0.171	1.517

Source: " *Inquérito ao Emprego Estruturado* ", calculations made by the author.

Notes:

(1) Annual figures result from accumulating quarterly flows.

(2) Entries and exits of establishments are not included.

(A) Ratio between the number of jobs created as a result of the expansion of existing establishments and total employment.

(B) Ratio between the number of jobs destroyed as a result of the contraction of existing establishments and total employment.

(C) The rate of hirings is given by the ratio between the number of workers that, in a given year, decide to enter the establishment and total employment.

(D) The rate of separation is given by the ratio between the number of workers that, in a given year, leave the establishment and total employment.

Table 6
LABOUR MARKET TRANSITIONS

	Data on the stock of employees					Quarterly transition from employment into:		
	Tenure	Tenure	Tenure	Number	First job	Unem-	Inactivity	Another
	In months	< 12 months Proportion	>240 months Proportion	of jobs Average	Proportion	ployment Proportion	Proportion	job Proportion
1993	151.7	12.5	23.8	2.6	37.1	0.95	1.14	1.41
1994	149.9	11.6	23.3	2.8	34.0	1.10	1.02	1.19
1995	147.7	11.9	23.5	2.8	31.8	0.80	0.93	1.09
1996	148.2	12.6	24.2	2.8	30.3	0.84	0.94	1.28
Average	149.0	12.1	23.7	2.8	32.7	0.92	0.99	1.20

Source: Microdata from the "Employment Survey" (INE), employed population, calculations made by the author.

Note: Proportions were calculated with reference to total employment.

long-lasting unemployment experience. Meanwhile, the hypothesis of switching jobs directly, with no unemployment or non-participation episode in between, does not appear to be relatively more inten-

sively used than the former. Thus, the weak rate of employment-unemployment transition is not compensated by a higher employment-employment transition rate.

4. EMPLOYMENT PROTECTION AND WORKER FLOWS

The interpretation of job and worker flows in Portugal cannot be separated from the legal framework of job contracts. Portuguese legislation, which constitutionally consecrates the principle of job stability (article 53^o of the Portuguese Constitution), establishes significant constraints on worker firings. These constraints are provided not only by the regulatory framework of severance pay and of the job contract forms, but also — and most notably from an economic point of view — by the existence of an imprecise and lasting set of procedures and mechanisms which the process of firing must observe⁽⁴⁾.

In the presence of non-returnable firing costs (for instance, administrative costs, cost of execution of the social plan, costs due to production disruption resulting from the announcement of collective lay-offs) economic theory predicts clearly the effects of job protection on employment flows: the greater the firing costs, the smaller shall be employment outflows (the lower shall be firings). If ex-ante a non-zero probability of the firm suffering a negative shock to the demand for the product exists, a rise in firing costs rises the minimum productivity threshold required to create a new job (or, from another perspective, the free entry condition lowers the maximum wage at which the employer is willing to pay the worker).

Furthermore, job protection strengthens the bargaining power of workers, whom therefore are in conditions to demand a higher wage level. Therefore, at an initial stage, firing costs lead to a gap between the wage offered by the employer (the feasible wage) and the wage demanded by the worker (the bargaining wage). To re-establish equilibrium in the labour market, unemployment penalisation will tend to rise through the reduction of job offers, which in turn rises the duration of an unemployment spell.

According to alternative references and methodologies, the Portuguese legislation on job protection is considered the most restrictive in the OECD. The most widely used indicator is compiled by the OECD and is based on the systematic comparison of job protection legislation in its member states (see table 7)⁽⁵⁾. However, this indicator is not exempt from criticism. In addition to

Table 7

RANKING OF COUNTRIES ACCORDING TO THE DEGREE OF JOB PROTECTION

Country	Index of job protection
Portugal	3.7
Turkey	3.5
Greece	3.5
Italy	3.4
Spain	3.1
France	2.8
Germany	2.6
Norway	2.6
Sweden	2.6
South Korea	2.5
Belgium	2.5
Austria	2.3
Japan	2.3
Netherlands	2.2
Czech Republic	2.1
Finland	2.1
Poland	2.0
Hungary	1.7
Denmark	1.5
Switzerland	1.5
Australia	1.2
Ireland	1.1
Canada	1.1
New Zealand	0.9
United Kingdom	0.9
United States	0.7

Source: OECD, 1999.

the difficulties that are always present in any comparative law exercise, a quantified measure of the level of rigidity of labour legislation is inevitably prone to some subjectivity and, most notably,

(4) From the viewpoint of economic theory, the relevant firing costs (i.e., the costs that effectively condition employers' labour demand decisions) are those that are not bound to become ineffective through the redesign of adequately conceived new contract (Lazear, 1990). For instance, in case of severance pay, the worker may offer inter alia the employer a monetary compensation (a bond) to pay for the right to the indemnity.

(5) This indicator is based on a weighted index of the degree of legal constraints included in the legislation on severance pay for dismissal, collective lay-offs, individual firing, temporary work and dismissal notice. Other indicators based on surveys to employers lead to similar rankings.

it cannot assess the degree of effectiveness of (compliance with) legal rules. However, there is no solid ground on which countries could be differentiated according to the degree of compliance with the respective legal frameworks.

The characterisation of worker flows allows to classify the Portuguese labour market as the paradigmatic case of the influence job protection can yield on the labour market dynamics. As referred above, this indication is clearly reflected both in the worker mobility indicators (average job duration, average number of jobs, intensity of labour force flows between employment, unemployment and non-participation) and in the high average unemployment duration.

5. JOB SECURITY AND UNEMPLOYMENT

The high levels and the strong persistence of unemployment in Europe, contrasting with the United States of America, gave rise to an intense discussion over the last decade on the role of the labour market institutions on unemployment developments (Nickell, 1997). More specifically, researches on the influence of the unemployment security system, the legal framework of job contracts, the training system and active labour market policies on the unemployment rate were developed⁽⁶⁾.

More specifically, the analysis of the effects of job protection (conditioning firings, regulating job contracts, etc) on the levels of the unemployment rate have risen sharp controversy⁽⁷⁾.

At the theoretical level, higher firing costs tend to give rise to lower inflows into unemployment and longer unemployment average duration. Since firing costs affect unemployment flows and duration in opposite directions, the expected effect of these costs on unemployment rates is ambiguous. At the empirical level, namely in research carried out based on international comparisons, the correlation between indicators of the degree of rigidity of job protection legislation and the unemploy-

ment rate is very weak, if not null. On the contrary, a strong sample correlation is found between the level of job protection and average unemployment duration, and also between the level of job protection and intensity of entries into unemployment (Blanchard and Portugal, 1999).

The comparison of the Portuguese case with that of other economies is particularly revealing. Indeed, when Portugal is compared with the USA (a country unanimously considered as one of those that least imposes constraints to firings), one can observe that both countries exhibited similar unemployment rates over the course of the last fifteen years. However, average unemployment duration in Portugal is three times higher than in the USA, which is compensated with flows into unemployment more than three times smaller. This suggests that job protection changes the nature of the labour market, making economies more sclerotic, and generating potential productivity and welfare losses.

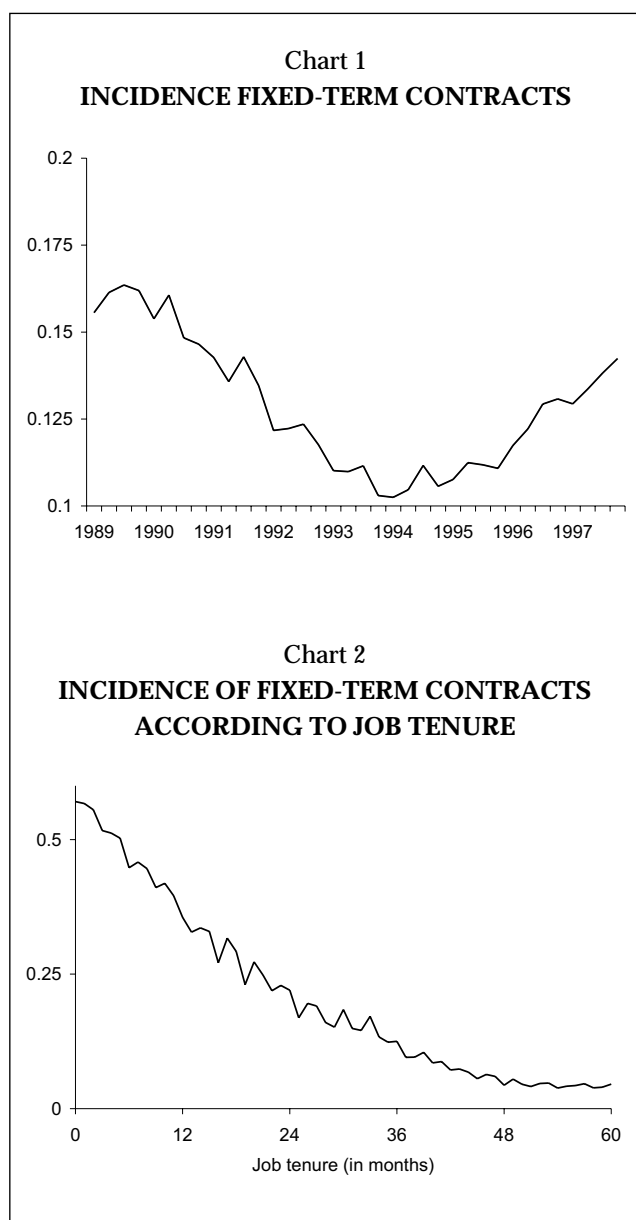
In this context, the comparison between the Portuguese and the Spanish labour markets is also quite suggestive. Though exhibiting very similar job protection legal frameworks⁽⁸⁾, the Spanish economy exhibits unemployment rates that are more than three times higher than in Portugal (Bover, Garcia-Perea and Portugal, 1999). This indicator suggests that the explanation for the paradoxical behaviour of the Spanish and Portuguese labour markets does not stem from job protection. Instead, it must be due to other institutions. A possible influence may be the system of unemployment subsidies, virtually non-existing in Portugal until 1985 (Blanchard and Jimeno, 1995). However, the current design of the Portuguese unemployment subsidy system does not differ substantially from the Spanish one⁽⁹⁾. A more plausible explanation is advanced in Bover, Garcia-Perea and Portugal (1999), based on the difference in the bargaining power of unions in both countries. For this purpose, these authors characterise the forms of

(6) More recently, some researches have tackled the issue of the interaction between labour market institutions in the accommodation to economic shocks (Bertola and Rogerson, 1997; Blanchard and Wolfers, 1999).

(7) This controversy is particularly evident in the political debate, since the main conclusions gather general consensus among researchers.

(8) Different job protection indicators consistently show that Portugal, Spain and Italy are the economies that show the highest protection indices.

(9) Nevertheless, one may argue that the impact of unemployment subsidy systems is felt only in the presence of very strong economic shocks to labour demand. This shall not have been the case of Portugal since the generalisation of the unemployment subsidy system.



union representation in both countries and collect a set of empirical data on the indirect manifestation of bargaining power (wage dispersion, strikes, wage differentials between insiders and outsiders, real wage flexibility, etc), which point towards a strong bargaining power of Spanish syndicates when compared with those in Portugal. Indeed, unions representation rules in Spain are such that syndicates reflect especially the interest of employed workers (the insiders), while in Portugal representation appears to be more diversified and decentralised, contributing to greater wage flexibility.

Finally, it should be stressed that the true economic costs associated with job protection do not translate into the increase of unemployment levels,

but instead into potential production and welfare losses. According to the calibration trials of Blanchard and Portugal (1999), these losses are quite significant.

6. JOB FLEXIBILITY AND FIXED-TERM CONTRACTS

In some European countries characterised by particularly rigid labour legislation, mechanisms of flexibilisation of labour contracts were introduced over the last decades. These aim at easing labour market adjustments and reducing unemployment. The most paradigmatic case is that of the introduction of fixed-term contracting. However, the explosion of fixed-term contracts in the hiring of workers did not always yield the expected results (Bentolita and Dolado, 1994). In some cases, the growing use made of fixed-term contracts seems to have increased the labour market segmentation between insiders and outsiders, increasing unemployment (Blanchard and Summer, 1986; Lindbeck and Snower, 1988). Moreover, the massive resort to temporary contracting (Alba-Ramirez, 1998), by giving rise to strong worker turnover by different jobs, creates less favourable conditions to investment in specific human capital, thus affecting productivity and wages.

6.1 The importance of fixed-term contracts

In Portugal, fixed-term contracts were introduced in the second half of the 1970s, as an attempt to alleviate the difficulties in job matching associated with an excessively rigid job protection framework. With the flexibilisation of lay-offs in 1989, more constraints were laid on fixed-term contracting. In the current legal framework, fixed-term contracts have a relatively limited share in total wage earners' contracts (see chart 1). However, these contracts represent around 60 per cent of total hirings and 50 per cent of total separations (see chart 2) (Varejão, 1998). Therefore, fixed-term contracting plays a key role in the process of labour adjustment.

Indeed, while a fixed-term contracted worker faces a 4.7 per cent (3.05 per cent) probability of entering unemployment (non-participation) within a quarter, for an open-ended-contracted worker

Table 8

QUARTERLY RATES OF TRANSITION FROM A FIXED-TERM CONTRACT

	Transition to:					Number of jobs	Tenure (in months)
	Unemployment	Non-participation	Self-employment	Another Job	Open-ended		
1992	3.41	3.62	0.45		5.03		16.77
1993	5.29	3.83	0.91		7.20		19.64
1994	6.31	3.01	0.67	3.74	5.98	3.67	19.18
1995	4.53	2.45	0.66	3.45	4.81	3.66	17.17
1996	4.43	2.85	0.45	4.02	4.59	3.51	15.37
1997	3.92	2.72	0.34	4.14	4.99	3.38	16.51
Average...	4.70	3.05	0.58	3.84	5.45	3.56	17.05

Source: Microdata from the "Employment Survey" (INE), computations made by the author.

Table 9

QUARTERLY RATES OF TRANSITION FROM A OPEN-ENDED CONTRACT

	Transition to:					Number of jobs	Tenure (in months)
	Unemployment	Non-participation	Self-employment	Another Job	Fixed-term contract		
1992	0.44	0.78	0.21		0.24		129.43
1993	0.68	1.10	0.29		0.30		138.83
1994	0.78	0.85	0.18	0.87	0.24	2.70	141.43
1995	0.59	0.70	0.20	0.83	0.29	2.70	141.30
1996	0.61	0.72	0.22	1.01	0.34	2.69	143.50
1997	0.51	0.74	0.17	1.01	0.41	2.69	143.23
Average...	0.61	0.82	0.21	0.93	0.30	2.69	142.36

Source: Microdata from the "Employment Survey" (INE), computations made by the author.

the probability of becoming unemployed (a non-participant) is 0.6 per cent (0.8 per cent) (see tables 8 and 9, and chart 3). However, the proba-

bility of a fixed-term contracted worker becoming permanently contracted (5.45 per cent, see table 8) is higher than the risk of unemployment (chart 4).

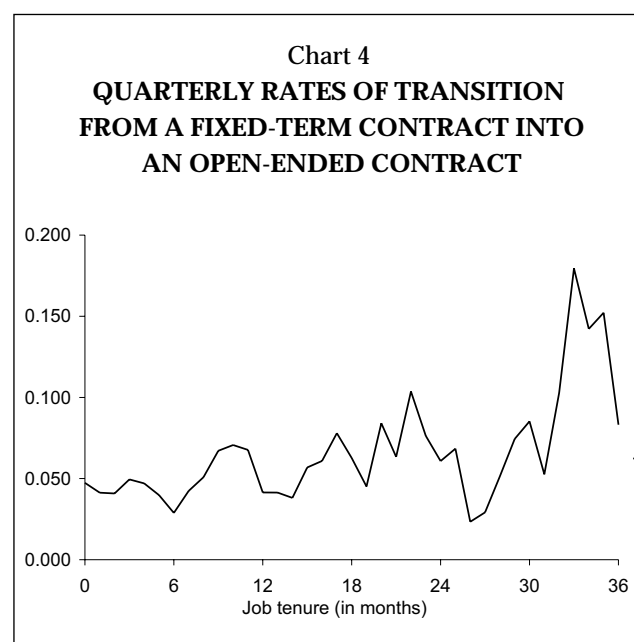
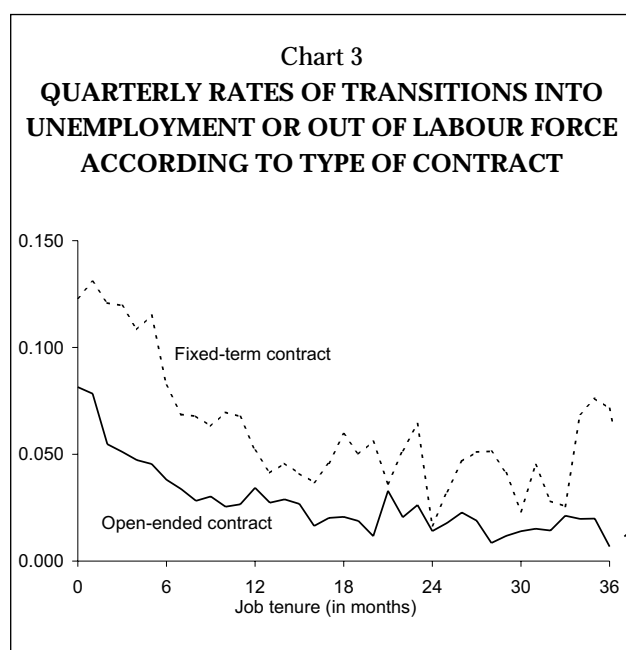


Table 10

**PROFILE OF FIXED-TERM
CONTRACTED WORKERS**

Variable	Kind of contract	
	Permanent	Fixed-term
Age (in years)	38.6	29.8
Schooling (in years)	7.1	7.5
Male (proportion)	55.1	49.3
Number of jobs.	2.7	3.5
Job tenure (in months)	143.2	20.8
Part-time (proportion).	3.6	7.4
Married (proportion).	72.7	47.6

Source: Microdata from the "Employment Survey" of the *INE*, calculations made by the author.

It now seems clear that the resort to this contractual form has a behaviour markedly adjusted with the economic cycle. Since fixed-term contracts have lower adjustment costs than permanent contracts, it is quite natural that the former are used more intensively in the upper swing of the economic cycle, being fixed-term contracted workers the first to be fired when economic activity slows down (Varejão and Portugal, 1999).

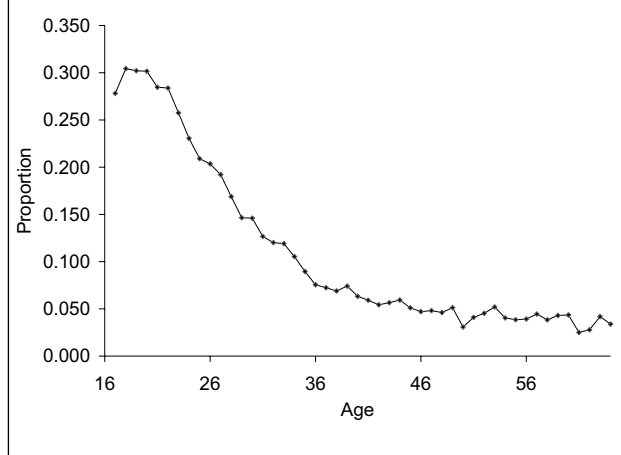
6.2 Why firms use fixed-term contracting

Several motives lead firms to resort to fixed-term contracting. Economic activities subject to greater demand variability, whether due to seasonal reasons (the case of tourism) or to the nature of the product (construction, for example), will tend to resort to fixed-term contracts more intensively. Thus temporary contracts perform as "buffers" against shocks to the demand of the product. Fixed-term contracts usually also perform as mechanisms of selection of workers; in cases the workers attributes match the job characteristics, this form gives place to a permanent contract. In this case, temporary contracting functions mainly as an "entry door" into the labour market.

6.3 Who are fixed-term workers

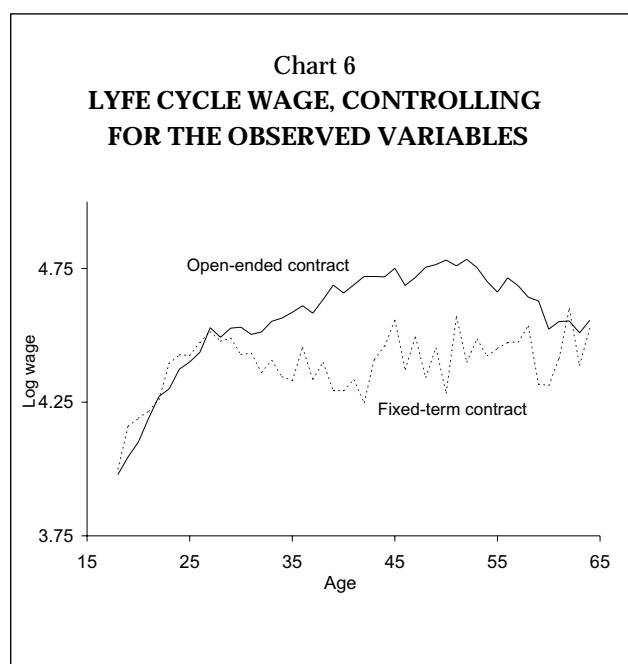
The use of temporary contracts, in addition to affecting job stability, may influence the process of accumulation of human capital specific to the job.

Chart 5
**INCIDENCE OF FIXED-TERM CONTRACTS
ACCORDING TO AGE**



If this contract form is used mainly to select and test workers, then it provides an improved allocation of resources, without influencing permanently individuals' productive abilities. On the contrary, the persistence of a temporary contract situation over the life cycle tends to generate inadequate investment in specific training, therefore feeding situation of labour market segmentation.

The characterisation of wage earners according to the respective contract form seems to indicate that in Portugal it is principally youngsters at the beginning of their work life who feed the stock of temporarily-contracted workers (table 10, chart 5). Given individuals' observed attributes, the labour situation of fixed-term contracted workers does not depress significantly their wage income (the loss is estimated at 3 per cent when comparing with permanently-contracted workers' wages). (table 4). However, if the temporary contract situation persists chronically over the age of thirty, the results of the estimation of the wage equation with parameters varying according to age indicate that wage losses will tend to be very high (chart 6). Therefore, the fringe of adult workers that keeps permanently rotating through temporary jobs will raise an income which is much lower than the one earned by permanently-contracted workers. This situation reflects, with a great likelihood, the absence of a return to investment in specific training.



7. CONCLUSIONS

Job protection legislation in Portugal is considered the most restrictive in the OECD. This perception is based on international comparisons, which are necessarily subject to many limitations and ambiguity. However, the indication of strong legal protection of jobs is consistent with the stylised facts on the Portuguese labour market developed in this article. Therefore, employment protection legislation seems to influence decisively employment adjustment, reducing the intensity of job creation and destruction flows and lowering worker turnover. Most notably, job flows compiled on a quarterly basis — as to avoid problems related with time aggregation — revealed the importance of the costs of adjustment of jobs to employment dynamics.

Table 11

REGRESSION EQUATION OF LOG NET MONTHLY WAGE ^(a)

Variables ^(b)	Total	Open-ended	Fixed-term contract
Labour market experience	0.0267 (0.0006) ^(c)	0.0273 (0.0007)	0.018 (0.0013)
Experience ²	-0.0004 (0.00001)	-0.0004 (0.00001)	-0.0003 (0.00003)
Basic schooling (1st cycle)	0.0958 (0.0095)	0.1101 (0.0102)	0.0003 (0.0256)
Basic schooling (2nd and 3rd cycle)	0.3052 (0.0100)	0.3249 (0.0108)	0.1239 (0.0267)
Secondary schooling	0.5932 (0.0113)	0.6352 (0.0122)	0.2952 (0.0290)
Upper-level schooling	1.1119 (0.0114)	1.1456 (0.0122)	0.816 (0.0303)
Training job tenure	0.1178 (0.0079)	0.1306 (0.0087)	0.043 (0.0183)
Job tenure	0.0127 (0.0007)	0.0121 (0.0008)	0.0234 (0.0049)
Tenure ²	-0.0001 (0.00002)	-0.0001 (0.00002)	-0.0007 (0.00038)
Male	0.2264 (0.0042)	0.2313 (0.0046)	0.1996 (0.0105)
Fixed-term contract	-0.0309 (0.0063)		
Constant	3.5068 (0.0154)	3.4342 (0.0169)	3.8926 (0.0348)
Sigma	0.3205	0.3196	0.3067
N	31573	24300	4273
Log-likelihood	-58131.5	-49042.7	-8873.6

Notes

(a) The estimation method used takes into account the aggregated nature of data on wages.

(b) The regression equation also includes 6 sectoral dummy variables.

(c) Asymptotic standard error.

The obvious explanation for the weak magnitude of quarterly job flows is that Portuguese firms do not change significantly labour demand in the presence of transitory shocks, contrary to what occurs when shocks are perceived as having a permanent nature. Meanwhile, job protection legislation appears to influence the mobility of establishments, yielding strong rates of entry and exit of establishments. It is possible that in situations where it is needed to shrink worker force, and adjustment costs are high, firms rather discontinue activity instead of reducing partly the number of jobs.

Higher firing costs tend to give rise to smaller flows into unemployment and longer average unemployment duration. Since firing costs affect unemployment flows and duration in opposite directions, their impact on the unemployment rate is ambiguous. In this regard, a comparison of the Portuguese labour market with the ones of Spain and the USA is particularly revealing. Although Portugal and Spain have quite similar job protection legal frameworks, the Spanish economy present unemployment levels three times higher than in Portugal. Meanwhile, when comparing Portugal with the USA — we may observe that both countries exhibited similar unemployment rates over the last 15 years. Therefore, it would appear that firing costs do not influence the unemployment level. Economic costs associated with job protection should instead be measured by productivity and welfare losses caused by the restrictions to firing.

Although accounting for less than 15 per cent of total wage earners, fixed-term contracts absorb more than half of worker adjustments. In Portugal, fixed-term contracting are used especially as a device to select and test workers at an early stage of their work life, to ensure a good matching of the job characteristics with the worker's skills. This way of using temporary contracting does not seem to penalise significantly workers' wage income. However, empirical evidence suggests that a fringe of workers is found in a chronic situation of temporary contracting. In this case, the disincentive to investment in specific training stemming from the limited duration of jobs seems to give rise to quite significant wage income losses and may originate segmentation in the labour market.

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