2. *Free entry:* This condition and the profit maximization condition guarantee that, in equilibrium, the number of vacancies adjust to eliminate all rents associated with holding a vacancy; that is, $J^0 = 0$, implying $c = \beta q(\nu) J^t(\epsilon_e, 1)$.

3. *Wage bargaining:* The equilibrium conditions from maximizing the surplus in PCs are

$$(1-\theta)S^p(\epsilon, d) = J^p(\epsilon, d) + s^p(\epsilon, d-1)$$
$$\theta S^p(\epsilon, d) = V^p(\epsilon, d) - (V^0 + s^p(\epsilon, d-1))$$

   For other types of contracts similar conditions hold (see previous subsection).

4. *Rational Expectations*

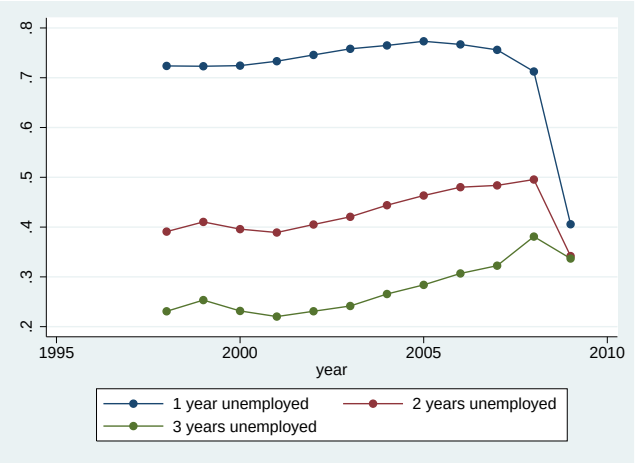
3 Calibration

In this section, we explain the procedure for assigning values to the model's parameters and the selection of functional forms. In the calibration, parameters must be chosen so that the model economy maps several statistics of the real economy. There are two types of parameters. Those that have a clear counterpart in the real economy, and those that do not. For the former, we use the implied parameter values. For some of the latter, we use the values estimated in empirical studies. For the rest, we use the simulated method of moments. This optimization method involves finding the parameter values that minimize the distance between the statistics of the model economy and those of the real data.

3.1 The Data Set

In order to calibrate the main parameters in our model, we will use Spanish administrative data from the *"Muestra Continua de Vidas Laborales"* (MCVL). This data set is based on a random draw from the Social Security archives. Each year, it provides a sample of 4% among all the affiliated workers, employed or unemployed, and pensioners in that year. The MCVL reports information for about 1.1 million people on their personal characteristics and employment and unemployment spells throughout their entire labour history. Here we use the 2009 wave, supplemented by the employment histories of workers present only in some of the previous three waves (2006-2008).

Figure 1: Empirical hazard rate from unemployment to temporary employment, by unemployment duration

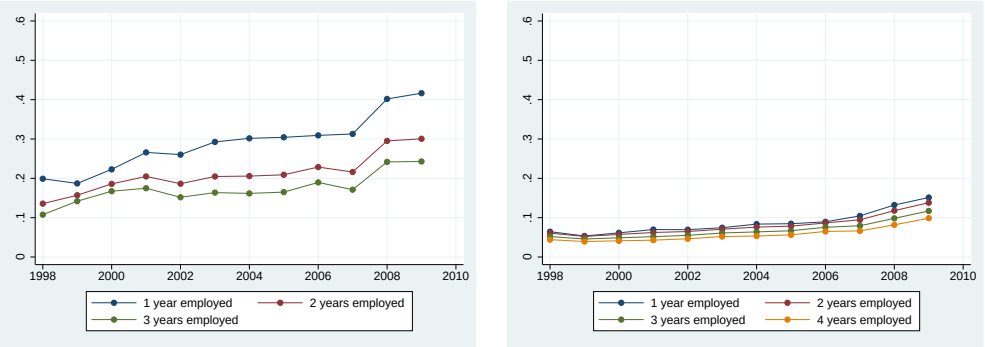


For each worker, we have the date when each job begins and ends. This provides us with quite detailed information about employment duration. Periods of unemployment can also be identified from the dates when the firm ceases to pay Social Security contributions for the worker. Furthermore, we also have information about the type of contract, so we will be able to differentiate between workers with a TC or a PC in each of their employment spells.

Our calibration sample includes the complete labour career for a sample of more than 700,000 workers in the period 1998-2009. Each of these workers may have both employment and unemployment spells. The following figures 1-3 present the main empirical hazard rates we will use in our calibration strategy. Figure 1 shows the exit from unemployment into temporary employment. As usually found in the literature, this hazard rate is highly decreasing with unemployment duration. It is also highly impressive how the exit from unemployment has decreased at the beginning of the current economic crisis, that is, in 2008.

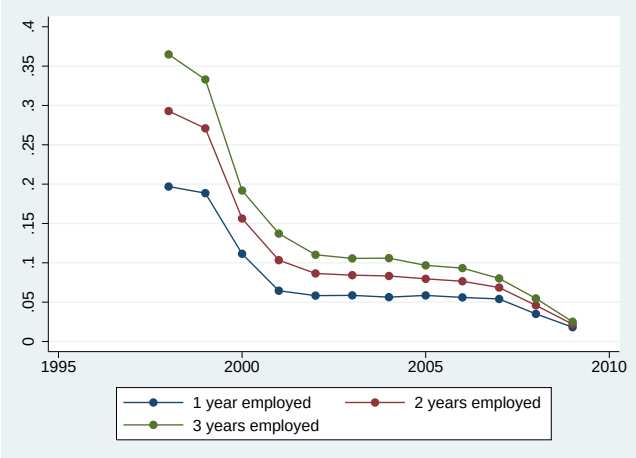
Figure 2 shows the exit from employment to unemployment for both temporary and permanent workers. The exit from a TC is much higher for any employment duration than the one from a PC. These hazard rates have substantially increased in 2008, as a clear signal of the increasing firing risk in the current economic crisis.

Figure 2: Empirical hazard rates from temporary (left) and permanent (right) employment to unemployment, by employment duration



Finally, Figure 3 shows the direct transition from a TC to a PC, without going through unemployment. Compared to the previous figure, we can see that this direct transition is much lower than the exit to unemployment. It is only at the third year of the TC, and only for the period 1997-1999, when both hazards are roughly comparable. For all the other years, this direct transition is always below 10%.

Figure 3: Empirical hazard rates of the direct transition from a TC to a PC, by employment duration



3.2 Model period

The job creation and destruction statistics have been computed using the data on working histories from the data set previously described, the MCVL. We will use all employment and unemployment spells in the sample lasting more than six months and taking place between 1997, the first year where type of contract information is available, and 2007, just before the current

economic crisis began. We have chosen a year as the model period for consistency with these data and because it is reasonable from a computational point of view.

3.3 Preferences

The utility function is linear in consumption as usual in this literature. The value of the discount factor β is fixed so that it is consistent with the mean annual real interest rate in the reference period, 3%.

3.4 Production technology

The production function is assumed to be linear in the idiosyncratic shock, $y(\epsilon) = \epsilon$. The idiosyncratic shock is modeled as a Markov chain, $\Gamma[(\epsilon')|(\epsilon)]$. In addition, we assume five possible quality levels. In general, these two assumptions would imply 20 restrictions to fix the values of the conditional transition probabilities between different quality levels. Assuming that the expected duration of good and bad idiosyncratic shocks coincides, $\Gamma[(\epsilon_1)|(\epsilon_2)] = \Gamma[(\epsilon_2)|(\epsilon_1)]$, we need only to estimate 15 transition probabilities. Given that we do not have direct information on the quality of the match, we use Tauchen's procedure[16] to parameterize the five quality levels, as well as the transition probabilities. To apply this procedure, we need to know the mean (μ), the standard deviation (σ_v) and the autocorrelation coefficient (ρ) of the underlying idiosyncratic process. We use quarterly GDP in the period 2000-08 to approximate that process. Finally, in order to properly match the statistics of interest we need to make one additional assumption. We assume that temporary workers and first period permanent workers are less productive than ordinary permanent workers.[17] The parameter y_{gap} is used to introduce this feature.

3.5 Unemployment benefits

The parameter b can be understood as some kind of unemployment subsidy or the return to home production. Both interpretations have drawbacks. In order to properly discuss unemployment benefits, we should include a Government and its budget constraint. On the other hand, the fact that there are no good estimates of the value of home production makes it very difficult to properly calibrate this parameter. We chose the first interpretation because b can then be easily measured and related to real numbers.[18] However, instead of fixing the value of b, we fix the ratio of average unemployment

[16] See Tauchen (1986).

[17] Bentolila and Dolado (1994) offer empirical evidence supporting this assumption.

[18] An alternative strategy would be to use the second interpretation and determine b with the simulated method of moments. We did not follow this strategy because the difficulty of calibrating the model grows exponentially as we add more parameters.

benefits to the minimum wage, b/w_{min}. To obtain this ratio, we compute the average monthly unemployment pay as the product of unemployment benefits and coverage for the period 2006-08 and divide it by the monthly minimum wage.[19]

3.6 Matching technology

We assume a Cobb-Douglas homogeneous of degree one matching function, $m = m(v,u) = A * v^{\eta}(u)^{1-\eta}$. The scale parameter A is the degree of mismatch in the economy and η is the value of the elasticity of the number of matches with respect to vacancies.

To summarize, the calibration exercise involves the assignment of values to two types of parameters. The discount rate and the parameters of the idiosyncratic process are set independently from the rest, since they have clear counterparts in the real economy. The value for the elasticity of new matches with respect to the vacancy input η and the workers' bargaining power θ have been set using the values estimated in empirical studies.[20] The five remaining parameters: the scale parameter in the matching function A, unemployment benefits b, the minimum wage w_{min}, the productivity gap y_{gap} and the cost of posting a vacancy c are calibrated using the method of simulated moments.[21] We need to impose five conditions to set these five parameters. These conditions are:

1. The permanent job destruction rate, $JDp = 6.19\%$.
2. The temporary job destruction rate, $JDt = 23.95\%$.
3. The ratio b/w_{min} is 35.11%.
4. The wage share, w/y, is 70%.
5. Unemployment duration, u_{dur}, is 10.38 months.

[19] These three numbers are, respectively, 764 euros, 26.2% and 570 euros. The sources of these data are the Bulletin of Labour Statistics edited by the Ministry of Labour and Social Affairs, the Spanish Labour Force Survey (EPA), and the National Employment Office (INEM).

[20] Abowd and Lemieux (1993) estimate $\theta = 0.3$ and the value for η in empirical studies lies in the range $[0.4 - 0.6]$.

[21] The method of simulated moments is explained in the following part. Starting with certain initial values, the optimization routine calls for a subroutine that computes the equilibrium, runs the simulation and computes the statistics. If, according to certain tolerance criteria, the statistics generated by the model are sufficiently close to the real ones, the program ends. Otherwise, the optimization routine (non–linear solver) modifies the initial parameter values and once again calls up the subroutine that computes the equilibrium.

Table 1: **Baseline Economy Parameters.**

β	μ	ρ	σ_v	b	w_{min}	A	η	c	θ	y_{gap}
.97	0.3	0.75	0.11	0.1	0.3	0.5	0.51	0.05	0.3	0.17

3.7 Severance costs

To compute the equilibrium, we need a severance cost function that stands for the severance costs in Spain in the period under study. We use the following pieces of information to estimate the severance cost function in PCs: legal compensation in fair dismissals (20 days of wages p.y.o.s. with a maximum of 12 monthly wages) and unfair ones (45 days of wages p.y.o.s. with a maximum of 42 monthly wages),[22] procedural wages of around two monthly wages, and the fact that, on average, 73.2% of all severance processes were declared unfair in the period 2006-08. Regarding the dismissal distribution, on average 4.3% were collective dismissals, 18.7% were agreed at the Units of Mediation, 67% followed the procedure specified in the Law 45/2002 and only 10% finally involved litigation.[23] Using those observations, the severance cost function in PCs is $s^p = 0.12 * w * (d-1) + 0.05 * w$, where d and w stand for a worker's seniority and the daily wage, respectively. Note that legal severance costs depend on the wage. Since making the severance cost function depend on wages is computationally very difficult to manage, we take the quality of the match as an approximation of the wage.

Finally, TCs entail a severance cost of 8 days of wages p.y.o.s. Therefore, the severance cost function in TCs is $s^t = 0.02 * w * (d-1)$.

4 Main Findings

In this section we report the answers to the questions posed. In Section 4.1, we report the results of the calibration exercise to test whether the baseline model is a good starting point to make counterfactual experiments. In Sec-

[22]The 33–day rule introduced in 1997 for PEPCs is not used in this calculation because only a small percentage of the new PCs signed in Spain in the last ten years are of this type. Moreover, it has not been clear at all, at least until the recent change in legislation, whether the severance payment for these new contracts is 33 or 45 days p.y.o.s. in the event of unfair dismissals.

[23]The number of days actually agreed upon is not made public (only the amounts paid), but the presumption is that they are very close to the legal limit. On the other hand, the 2001-02 reform (Law 45/2002) abolished a firm's obligation to pay procedural wages when dismissed workers appeal to labour courts, as long as the firm acknowledged the dismissal as being unfair and deposited the severance pay (45 days of wages p.y.o.s.) in court within two days of the dismissal.

Table 2: **Calibration results**

Statistics	Simulated Model	Spanish Data
JDp	5.58	6.19
JDt	23.03	23.95
b/w_{min}	33.33	35.11
w/y	74.78	70.0
u_{dur}	10.64	10.38

tion 4.2, we show the steady-state effects of introducing a single open-ended contract with increasing severance payments. In Section 4.3 we perform the transition. Finally, in Section 4.4 we show the steady-state effects of the "2010 Labour Market Reform" and compare these results with those of implementing the single open-ended contract.

4.1 Calibration results

There are two kinds of statistics: those that we use to match the economy, and those we want to ask questions about. The model has been calibrated to map the following set of statistics: the permanent job destruction rate JDp, the temporary job destruction rate JDt, the ratio of unemployment benefits to the minimum wage b/w_{min}, the wage share w/y, and unemployment duration u_{dur}.[24]

On the other hand, the set of statistics in which we are interested are: unemployment rate u, aggregate job destruction rate JD and tenure distribution.[25] We focus on JD rates instead of JC rates for two reasons. First, in a steady-state they should be the same; second, in our model permanent job creation is possible only via job conversion.

Table 2 shows that the baseline model is a good starting point to ask

[24]Due to the CRS of the matching function, the job finding rate is greater than one. This means that in a year every unemployed person finds a job. However, unemployment duration, defined as one over the job finding rate is less than a year. One way to resolve this inconsistency is to use the procedure in den Hann et. al (2000) to delimit the job finding rate between zero and one. Another way is to make workers go to the job market a couple of times while they are unemployed and accumulate. This is the alternative we choose.

[25]To compute the statistics, we have generated a series of unemployment, job creation and destruction rates (aggregate and disaggregate by type of contract), as well as wage shares, distributions of permanent and temporary job destruction rates by reason of separation and distributions of job seniority in TCs and PCs. Since all the variables are stationary, it is not necessary to detrend the series to make the calculations.

Table 3: **Simulation results**

Statistics	Simulated Model	Spanish Data
JD	13.72	10.51
u	14.54	11.0
$Av.tenure <= 6$	1.95	1.91
$Av.tenure <= 10$	3.79	2.81

questions about the workings of this economy because it matches real data quite well. Table 3 shows the other set of statistics. Both aggregate job destruction and the unemployment rate are slightly higher when compared with the actual data. Regarding tenure distribution, the model reproduces the average tenure for those with a tenure of fewer than 6 years reasonably well.

4.2 The single open-ended contract

In this section, we use the model to quantify the steady–state effects of introducing a single open-ended contract with compensation growing with seniority. We simulate the effects of the so-called "12-36 Single-Contract" (12-36 SC)[26], where the compensation starts being 12 days of wages p.y.o.s. and, with an increase of two days for each additional year worked, reaches a final level of 36 days p.y.o.s., after twelve years working within the same firm.[27] We compare this steady–state with the one prevailing under the actual situation "the dual labor market" (Dual L.M.). We are particularly interested in the effects on the unemployment rate, job destruction, tenure distribution and mean indemnity.[28]

Table 4 shows that both unemployment and job destruction rates decrease substantially with the introduction of the single open-ended contract. What is very interesting is the change in the job destruction rate in contracts with a tenure equal to or below four. In the dual labor market, the temporary job destruction rate was very high because the large gap between the severance costs of TCs and PCs induces massive firings at the beginning of period $d = 4$ in order to prevent the high future severance costs of PCs

[26]We have also simulated other specifications, such as the SC proposed in Bentolila, Dolado and Jimeno (2008) and the results are very similar to the ones presented here.

[27]We have imposed a maximum compensation of two years of wages for this new contract.

[28]To facilitate comparisons, Table 4 includes the percentage change for each relevant variable ($\%var$), as well as the percentage change relative to the average severance cost percentage change ($\frac{\%var}{\%s}$).

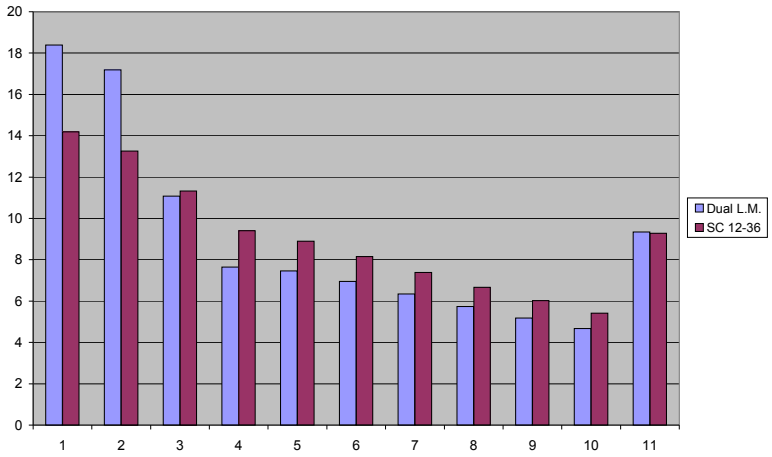
Table 4: **The single open-ended contract**

Statistics	$DualL.M.$	$S.C.$	$\%var$	$\frac{\%var}{\%s}$
u	14.54	11.42	-21.46	+2.35
JD	13.72	9.79	-28.64	+3.14
$JD_{d<=4}$	23.03	12.34	-46.42	+5.08
$JD_{d>4}$	5.58	8.19	+46.77	-5.12
$Av.Tenure_{d<=6}$	1.95	2.06	+5.64	-0.62
$Av.Tenure_{d<=10}$	3.79	4.19	+10.55	-1.16

in the event of job conversion. Under the single open-ended contract, the probability of being fired in contracts with a tenure equal to or below four is almost halved because firms are less reluctant than before to destroy jobs since they are costlier (12 days p.y.o.s against 8 p.y.o.s in TCs) and because the jump in severance payments (from 8 days p.y.o.s. to 45 days p.y.o.s.) has been substituted by a smoother increase in severance payments. In other words, the pervasive incentives to destroy jobs at the beginning of period $d = 4$ largely diminish. The opposite happens, however, for the probability of being fired for workers with a tenure of more than four years ($JD_{d>4}$). Under the single open-ended contract, this probability is almost doubled, 8.2% vs. 5.6%. Hence we can conclude that as the severance payment is smoothed, so are job destruction rates.

These changes in job destruction rates have a substantial impact on tenure distribution. The average seniority for workers with six or fewer years of tenure and ten or fewer years of tenure increases by 5.6% and 10.6%, respectively. Moreover, the number of workers with a tenure equal to or below one year is 23% lower and the number of workers with a tenure of more than three years is 15% higher under the SC. These changes are very important in terms of human capital accumulation and experience.

Figure 4: Tenure Distribution



4.3 The transition

In this section, we analyze the transition from the Dual labour market to the one with the Single Contract. We take a sub-sample of workers from the MCVL data set previously described that differ in several dimensions: whether they are employed or unemployed, the type of contract, tenure on the contract and their productivity level (proxied by qualification), and we follow them for 12 years.

We compare the resulting labor market careers under two different scenarios: the status quo and the transition. In both scenarios they are subject to the same shocks, but their employment histories will be different because the policy rules are different. Under the status quo, the policy rules are those prevailing in the dual labor market. In the transition scenario, the policy rules will be those that prevail under the single contract for those that start as unemployed. However, those that start in a temporary or permanent job will be subject to the policy rules prevailing in the dual labor market until they lose their jobs and go through unemployment. Once they re-enter the labor market they will be hired under the single contract and the policy rules will be the appropriate ones.

Figure 5: The transition I

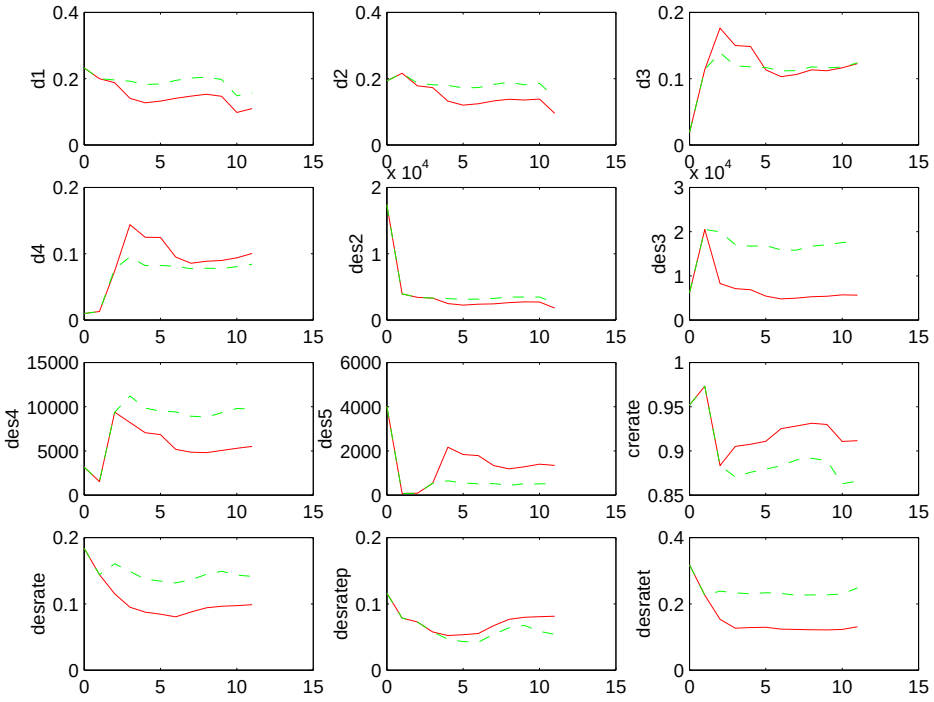


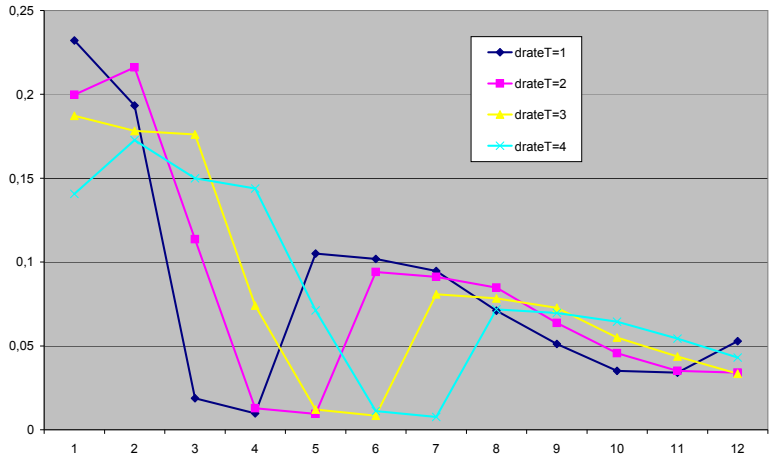
Figure 5 shows the evolution of several labor market variables related to tenure distribution and job creation and destruction under these two scenarios. As the transition evolves, every variable moves towards its steady state value. In the first four panels, we show the evolution of the percentage of people in the first four durations (d1, d2, d3 and d4) over the twelve-year span. The percentage of people in the first two durations decreases in the transition, with the opposite occurring for the percentage of people in the remaining durations. These changes are due to the change in the structure of severance costs; that is, to the smoother increase in severance payments of workers holding a single contract that tend to alter the incentives to destroy jobs, especially in durations d3 and d4, allowing people to have longer tenure. The following four panels show job destruction in durations 2, 3, 4 and 5. For the same reason pointed out before, job destruction in durations d3 and d4 decreases considerably, while job destruction in the following durations increases.[29]

Finally, the job creation rate (crerate) and the job destruction rates, aggregated and disaggregated by type of contract (desrate, desratet, desratep) are also shown. The job creation rate is greater under the transition, while the opposite is true for the aggregate job destruction rate. This result might seem somewhat surprising if one takes into account the well–known result

[29]We have shown only the percentage of people and job destruction for the durations where most action takes place.

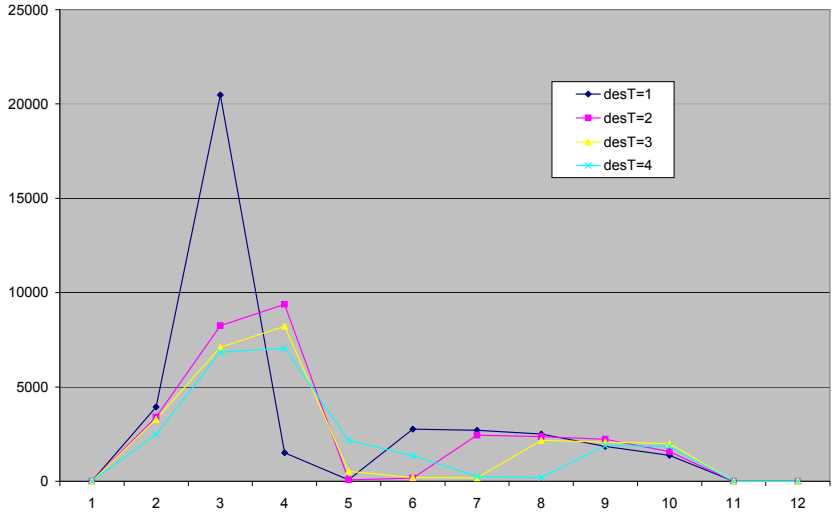
whereby a decrease in severance costs (implied here by the introduction of the single contract) should increase not only job creation but also job destruction (see, for instance, Bentolila and Bertola (1990)). Here, this is true for job creation but not for aggregate job destruction because there is a composition effect. The job destruction rate in durations equal to or below four years (the so-called "temporary job destruction" rate in the dual labor market), $JD_{d<=4}$, decreases sharply in the transition, while the opposite occurs for the job destruction rate in durations above four, $JD_{d>4}$, (the so-called "permanent job destruction" rate in the dual labor market). Again, these effects have to do with the smoothing effect of severance payments under the single contract. A different way of looking at the same picture is to show the evolutions of tenure distribution (Figure 6) and job destruction (Figure 7) as time goes by (for periods T=1, 2, 3 and 4). As the transition evolves, the percentage of people and job destruction in the first durations decreases and the distributions move towards their steady–state values.[30]

Figure 6: Evolution of tenure distribution



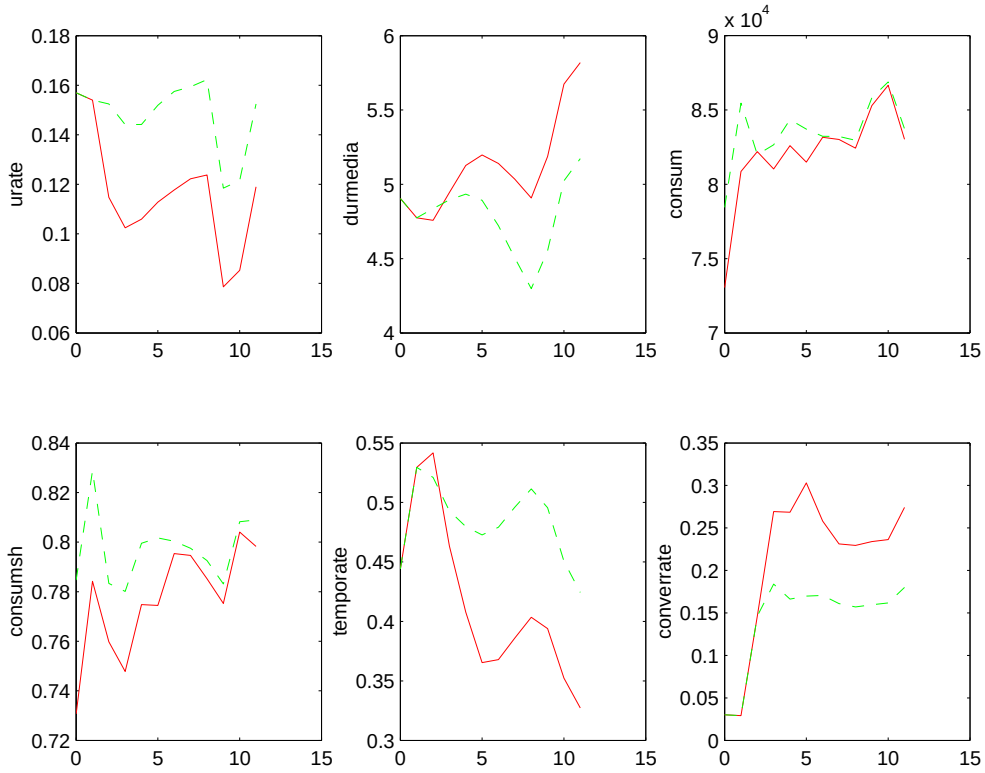
[30]Note that durations in Figures 6 and 7 are displayed on the x-axis.

Figure 7: Evolution of job destruction



Finally, Figure 8 shows the evolution of the remaining variables of interest. As expected, the unemployment rate and the percentage of people in the first four durations under the transition (the so-called "temporary employment rate" in the dual labor market) decrease, while average tenure and the percentage of people that transit from d3 to d4 (the so-called "job conversion rate" in the dual labor market") increase. Note that both consumption (consum) and the consumption share (consumsh) decrease slightly under the single contract so by using this criteria we can say that this policy would decrease welfare, at least during the first 6-7 years in the transition to the new equilibrium.

Figure 8: The transition II



In order to see who actually gains and loses from the implementation of this policy, we compute the severance payments and average tenure once the transition has been completed for each worker in the sample, and compare them to the ones that would have been obtained under the status quo. Tables 5 and 6 show that in the transition scenario more than 60% of the workers are better off (or the same) in both dimensions: 15.55% are strictly better off and only 1.92% are worse off in both dimensions. The unemployed group of workers is where more people improve (21.12%) and this is also the group where fewer people are worse off (0.09% against 3.81% in the case of temporary workers).

Table 7 shows that the unemployed are the ones that gain more in terms of the percentage of people whose severance payments increase (38%) and in terms of the average increase in the number of days of wages p.y.o.s (67.5). They are also the ones that lose more: almost 40% record a decrease in severance payments, with the decrease being substantial (on average 113.3 days of wages p.y.o.s.).

However, it is problematic to consider the compensation workers finally receive as a criteria for measuring how well they perform because the indemnity can be higher, both because tenure is higher and because the worker

Table 5: **Winners and losers I**

tr v. sq	All	Permanent	Temporary	Unemployed
$s>, t>$	15.55%	14.92%	12.80%	21.12%
$s>, t=$	12.09%	13.66%	9.16%	11.84%
$s>, t<$	6.07%	5.64%	7.68%	5.02%
$s=, t>$	0.01%	0.00%	0.00%	0.03%
$s=, t=$	34.03%	34.74%	41.00%	22.31%
$s=, t<$	0.00%	0.00%	0.00%	0.00%
$s<, t>$	23.07%	23.32%	19.13%	27.90%
$s<, t=$	7.26%	6.09%	6.42%	11.70%
$s<, t<$	1.92%	1.62%	3.81%	0.09%

Table 6: **Winners and losers II**

	All	Permanent	Temporary	Unemployed
Greater s	33.71%	34.22%	29.64%	37.98%
Same s	34.04%	34.74%	41.0%	22.34%
Lower s	32.25%	31.03%	29.36%	39.69%
Greater s	38.63%	38.24%	31.93%	49.05%
Same t	53.38%	54.49%	56.58%	45.85%
Lower t	7.99%	7.26%	11.49%	5.11%
Greater s and t	15.55%	14.92%	12.8%	21.12%
Lower s and t	1.92%	1.62%	3.81%	0.09%
Same s and t	34.03%	34.74%	41.0%	22.31%
Greater s and/or t	61.68%	63.33%	62.96%	55.29%
Lower s and/or t	38.32%	36.67%	37.04%	44.71%

Table 7: **Winners and losers III**

	All %	All	Perm %	Perm	Temp %	TemP	Unem %	Unem
Greater s	33.71%	39.0	34.22%	27.7	29.64%	38.6	37.98%	67.5
Lower s	32.25%	85.9	31.03%	69.02	29.36%	94.8	39.69%	113.3
Greater t	38.63%	2.60	38.24%	2.53	31.93%	2.44	49.05%	2.81
Lower t	7.99%	2.80	7.26%	0.08	11.49%	0.09	5.11%	3.72

Columns 3,5,7 and 9 in the first 2 rows show the increase/decrease in the number of days of wages p.y.o.s.
In the last 2 rows, columns 3,5,7 and 9 show the increase/decrease in seniority (in years).

has been fired more times. If we concentrate on tenure, Table 6 shows that 38.63% have a higher tenure (92% have the same or higher) and only 8% are worse off in this dimension.

Again, Table 7 shows that the unemployed are the ones that gain more in terms of the percentage of people whose tenure increases (49%), as well as in terms of the increase in the number of years of seniority (2.81). They are also the group of workers losing less in terms of the percentage of people negatively affected by the reform (only 5% of them experienced a decrease in tenure as opposed to 11.5% in the case of temporary workers), but those affected record the highest decrease in tenure (on average 3.72 years). The reason temporary workers do not perform that well in the transition has to do with the fact that they already had a temporary contract when the transition started. Under the status quo some of these temporary workers will end up having higher tenure because once their TCs have been converted into PCs their probability of being fired is much lower than under the single contract.

We can conclude that this exercise contradicts the perception whereby this type of contract, with lower severance payments than in the current system, would increase the precariousness of the Spanish labour market. Only 32.25% will experience a decrease in severance payments of around 13.47% on average, basically as a result of the decrease in the firing probability, and less than 8% will end up having a lower tenure. In fact, the reform would have a sizable impact on expected employment durations: on average, tenure would be 14.54% higher. Note also that the proportion of people that would not be affected by the reform is very high: 34.03% would end up with the same severance payments and tenure.

4.4 2010 Labor Market Reform

The purpose of this final subsection is to use the same model as before to quantify the steady–state effects of the changes in the structure of severance costs introduced in the last labor market reform made by the Spanish Government in June, 2010, and compare it with the results obtained in

Section 4.2. The 2010 reform extended the use of PEPCs with severance payments equal to 33 days of wages p.y.o.s. to almost all workers and increased the severance costs in TCs from 8 to 12 days of wages p.y.o.s. The purpose of this measure was to decrease the gap between the severance cost of PCs and TCs (see Figure 9).

Figure 9: 2010 Labour Market Reform vs. Status Quo

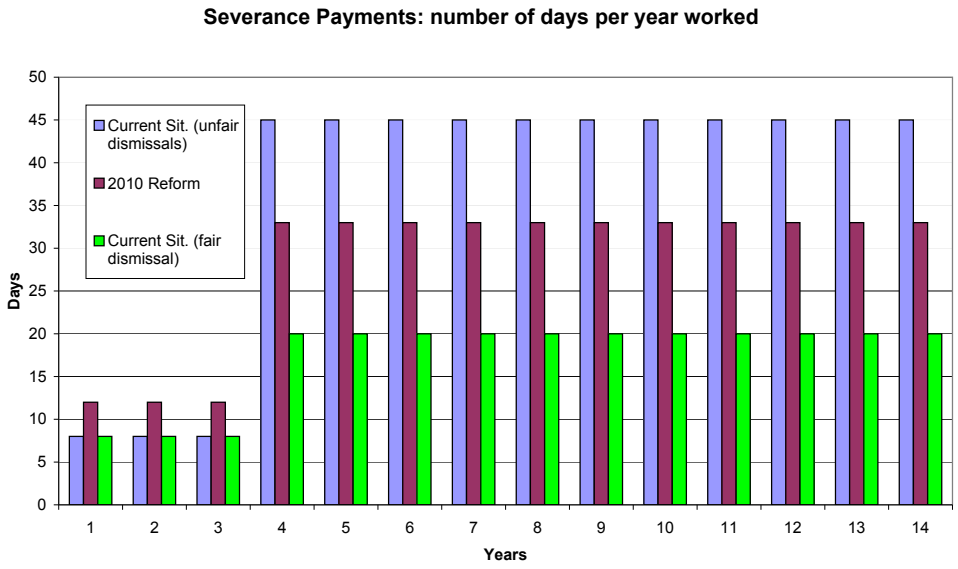


Table 7 shows that the effects of the 2010 Reform fall between those in the dual labor market and in the single open-ended contract studied previously. In short, it seems this new labour market reform has become another lost opportunity for reducing labour market segmentation in Spain.

Table 7: The Effects of the 2010 Reform

Statistics	*Dual L.M.*	2010 *Reform*	*S.C.*
u	14.54	13.10	11.42
JD	13.72	11.90	9.79
$JD_{d<=3}$	23.03	18.20	12.34
$JD_{d>3}$	5.58	6.80	8.19
$Av.Tenure_{d<=6}$	1.95	2.00	2.06
$Av.Tenure_{d<=10}$	3.79	3.99	4.19

5 Conclusions

The great recession has once again revealed the poor performance of dual labor markets. In this paper we have argued that countries with dual labor markets should strive to extend job protection to a wider share of the population. In our opinion, the best option is through the introduction of a single open-ended contract for all new hirings. To provide an idea of the quantitative effects of such a measure, we have computed the steady-state and the transition effects of a particular example of a single open-ended contract in a model economy that matches the Spanish data reasonable well.

We have shown that the single open-ended contract decreases steady-state unemployment and job destruction and smoothes both the probability of being fired and tenure distribution, as severance payments are smoothed. In fact, job destruction in contracts with a tenure of fewer than four years is almost halved, with the opposite happening in contracts with a tenure of more than four years. Moreover, the number of workers with a tenure equal to or less than a year is 23% lower, and the number of workers with a tenure of more than three years is 15% higher.

In addition, our transition exercise shows that the single open-ended contract would be highly beneficial for a majority of workers, especially for the unemployed, because job stability would increase. According to our calculations, fewer than 8% would be jeopardised (in terms of reduced tenure) by the reform and 34% would not be affected, ending up with the same severance payments and tenure as if the system remained unchanged. For firms, this contract would not necessarily increase the average expected severance cost because job destruction is lower than under current legislation. In fact, the average compensation, weighted by the job destruction rate for any duration, decreases by 9.13%. Another advantage from the firms' point of view would be the reduction in the degree of uncertainty due to the simple computation of the dismissal cost. However, for this to be true, it would

also be necessary to redefine the legal reasons for firing so that uncertainty over the type of firing and over the official decision on its fairness would be reduced.

Obviously, the introduction of the single open-ended contract would not be enough to improve the general performance of the Spanish labour market. This measure should be complemented with reforms in certain other areas, such as for example collective bargaining, unemployment benefits, active labour market policies, labour intermediation and the educational system. Yet it will surely encourage the creation of new firms and enhance the performance of existing ones due to the greater incentives to invest in human capital and accumulate experience. Moreover, given the lower job turnover rates and greater job security, this reform could increase youth emancipation and birth rates and even improve the sustainability of the pension system.

The 2010 labour market reform was not a step in the wrong direction, but a further one needs to be taken. If governments turn a deaf ear again, once the economy recovers, we will repeat the same mistake, simply creating temporary jobs and condemning more than four million unemployed people to the same pernicious cycle of unemployment and temporality of the other almost four million people working on a temporary basis. For all these reasons, the differences in the design of permanent and temporary contracts should disappear.

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