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ARTÍCULO

THE PATH TO LABOUR STABILITY FOR YOUNG SPANISH WORKERS DURING THE GREAT RECESSION

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Cebrián, I., & Moreno, G. (2024). The path to labour stability for young Spanish workers during the great recession. *Cuadernos de Economía, 43*(91), 195-230.

The Great Recession (2008-2013) worsened the labour market position of young workers in Spain. This paper analyses the factors that condition young people's access to the labour market and their employment stability. It employs duration and multivariate models to analyse data from the Continuous Sample of Working Lives (*Muestra Continua de Vidas Laborales*, MCVL). The main results indicate that workers under 30 years of age who enter into open-ended labour contracts are more likely to be employed after two years, but that only 50% of these initial contracts survive. This instability is explained principally by the structure of labour demand.

Keywords: Youth employment; stability; trajectories; Spain; Great Recession.
JEL: J08, J40, J41, J38, J21.

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Cebrián, I., & Moreno, G. (2024). El camino hacia la estabilidad laboral de los jóvenes trabajadores españoles durante la gran recesión. *Cuadernos de Economía, 43*(91), 195-230.

La Gran Recesión (2008-2013) empeoró la posición en el mercado laboral de los trabajadores jóvenes en España. Este artículo analiza los factores que condicionan el acceso y la estabilidad de los jóvenes en el empleo utilizando modelos de duración y multivariantes con datos de la muestra continua de vidas laborales (MCVL). Los principales resultados indican que los trabajadores menores de 30 años que acceden con un contrato indefinido tienen una mayor probabilidad de estar empleados al cabo de dos años, pero solo el 50 % de estos contratos iniciales sobreviven. Esta inestabilidad se explica principalmente por la estructura de la demanda laboral.

Palabras clave: empleo juvenil; estabilidad; trayectorias; España; Gran Recesión.
JEL: J08, J40, J41, J38, J21.

INTRODUCTION

Throughout the European Union (EU), one of the most important consequences of the international financial crisis, whose effects were first felt in 2008 was the deterioration of the position of young people in the labour market (Bell and Blanchflower, 2011). During this period, access to employment was more difficult for this population group than it had been during the previous period of economic expansion. Many young people left the labour market and returned to education because they refused to spend more time looking for employment, which was not only difficult to find but also generally of poor quality, with low wages and a high level of uncertainty (ILO, 2014).

The Spanish youth labour market is one of the most precarious in the EU, with a large number of low-wage workers and many fixed-term and undesirable part-time contracts. Young people are much more likely than their older counterparts to be in precarious employment. In 2015, 43.3% of 15 to 24-year-olds in the EU worked under fixed-term contracts, compared to 14.1% for all workers. However, this share ascended to 75% in Slovenia, 73% in Poland, 70% in Spain, 67% in Portugal and 53% in the Netherlands. Among these young people, in Spain, 78% and in Cyprus 82% were unable to get a permanent job. In some countries, access to employment through fixed-term contracts has become a common experience for young people who would, however, prefer to count with a permanent contract.

In addition, part time contracts are another indicator of the precariousness of young people's employment. Part-timers made up 32% of the workforce aged 15-24 across the EU in 2015, rising to as high as 80% in the Netherlands, 49% in Sweden, 38% in Spain and 29% in Italy. Part-time work can suit young people who are still in education, but this is not the case for everyone. In Italy, 84% of young part-timers want a full-time job, while in Spain 54% are working part-time only because they cannot get full-time work.

In Spain, two principal labour market reforms were launched during the Great Recession, in 2010[1] and 2012[2] (hereafter, RDL 10/2010, Law 35/2010 and RDL 3/2012). These were intended to assuage the extremely difficult situation of the Spanish labour market. The reforms included specific measures for young people (Escudero, 2016), most of them focused on the creation and promotion of stable employment. However, there is insufficient evidence that they have been effective in maintaining young workers on the path to stability (Ubeda et al., 2020).

[1] Royal Decree-Law 10/2010, of 16 June, on urgent measures to reform the labour market. *Boletín Oficial del Estado*, 147, of 17 June, 2010, https://www.boe.es/eli/es/rdl/2010/06/16/10.
Law 35/2010, of 17 September, on urgent measures for the reform of the labour market. *Boletín Oficial del Estado*, 227, of 18 Septembre, 2010. https://www.boe.es/eli/es/l/2010/09/17/35/con

[2] Royal Decree-Law 3/2012, of 10 February, on urgent measures to reform the labour market. (*Boletín Oficial del Estado*, 36, of 11 February 2012. https://www.boe.es/eli/es/rdl/2012/02/10/3.
Law 3/2012, of 6 July, on urgent measures for the reform of the labour market. (Law 35/2010 onwards) *Boletín Oficial del Estado*, 162, of 7July, 2012. https://www.boe.es/eli/es/l/2012/07/06/3/con

Youth unemployment is one of the most serious problems in Spain and has considerable social consequences. The situation worsened during the Great Recession in Spain, between 2008 and 2013, and by the end of 2014, 38% of people under 30 were unemployed. Even during the post-crisis period, the youth unemployment rate has remained very high, standing at 34% for workers under 30 years old in the second quarter of 2016, a figure that was much higher for those under 20 (63%), but lower for the population as a whole (20%).[3] In addition, this group of workers also has the highest rate of fixed-term employment, a temporary rate over 50% and a very high turnover rate.[4] According to information from the Spanish Continuous Sample of Working Lives (*Muestra Continua de Vidas Laborales*, MCVL), young people with at least one employment spell between 2005 and 2013 had, on average, 7.7 episodes of employment, of which 6.1 were temporary. According to information from the Spanish Public Employment Service (*Servicio Público de Empleo Estatal,* SEPE), in 2013, the worst year of the crisis, approximately one-third of all contracts registered were for workers under 30 years of age, 93% were fixed-term and 43% were part-time.[5] The average expected duration of temporary contracts (for a specific task or service or production contingencies) was between 10 and 44 days. The ending of the period of crisis did not improve these figures and the COVID-19 pandemic worsened them even more (Bentolila et al., 2021).

Some studies focused on the Spanish case suggest that many young people are trapped in temporary work, and only some of them are able to secure an open-ended contract after a period in temporary employment (Güell and Petrongolo, 2007; Toharia and Cebrián, 2007; Cebrián and Toharia, 2008; García-Pérez and Muñoz-Bullón, 2011; Felgueroso et al., 2018; García-Pérez et al., 2019). The situation is similar in other countries (ILO, 2014). The transition to a stable job is determined by the specific conditions of the labour market, and young people tend to stay in their jobs, regardless of their quality, in order to avoid unemployment.

This precarious labour position for young Spanish workers complicates their chances of leaving home (emancipation) considerably (Gregg et al., 2004; Ayllón, 2014; Cantó et al., 2022). According to the Emancipation Observatory (*Observatorio de Emancipación*) produced by the Youth Council of Spain, during the last quarter of 2016, only 19.7% of young people under 30 were living outside the parental home, a percentage that had been falling since the crisis hit the Spanish economy in 2008.

The labour market reforms of 2010 and 2012 sought to introduce new mechanisms to combat the vulnerability of workers, with young people as a principal target

[3] Data from the Spanish Labour Force Survey – EPA-.

[4] Employees are on a fixed-term or a temporary contract if the contract ends on a particular date or with the completion of a specific task or they have a contract with an agency or are in an apprenticeship or training program. Permanent employment is defined as when the employee is hired with an open-ended contract on a "permanent" or "indefinite" basis.

[5] However, of all registered contracts, the proportion of open-ended contracts was slightly larger (8.1 %), while the proportion of part-time contracts was smaller (35.1 %).

group. The reforms introduced a set of measures to stimulate the hiring of unemployed young people under 30 years of age, reforms that, in the case of the 2012 legislation, were to remain in force until the unemployment rate fell below 15%. The measures included: the indefinite-term hiring of young people by microenterprises and self-employed entrepreneurs; incentives for part-time hiring with a training link; "first youth employment" (*primer empleo joven*) and incentives for internship contracts for people in first youth employment or for the incorporation of young people into social economy entities. On the whole, labour stability has been a priority objective of the different Spanish governments since the 1990s; policies have been intended to reduce labour market segmentation caused by the high rate of temporary employment that has prevailed since the 1980s. The recurrent use of subsidies and bonuses for social security contributions in order to encourage open-ended contracts should also be highlighted. The public budgetary commitment required by these measures is very high; for this reason, it is interesting to analyse whether firms use these subsidies to improve job creation and the stability of the youngest workers (AIRef, 2018). However, over time, it has been observed that the situation of young people has not only failed to improve but has in fact worsened. Lower costs of dismissal, increased rates of involuntary part-time work and changes to the conditions of collective bargaining that have principally favoured the business sector have all led to a worsening of the employment situation of young people (Escudero, 2016).

There are many different questions to be answered if evidence of the ways youth labour stability evolved during the Great Recession is to be provided. Can permanent employment of young people be considered a stable type of employment? Do these types of permanent contracts, which were specifically encouraged in the labour reforms enacted during the Great Recession, provide young people with job stability or, on the contrary, is stability independent of the type of contract? What characteristics are associated with greater stability?[6]

First, the duration of the new permanent contracts granted to young workers is analysed over a period of at least two years, in order to determine the factors that influence their duration, including personal characteristics and the structure of labour demand (activity sector, type of firm and firm size). Second, the probability of young workers remaining under the same contract or of being in a different labour situation after two years is explored, along with the determinants of these circumstances. On the basis of these analyses it is possible to establish how productive sectors can help or hinder the improvement of young people's employment trajectories and their paths to stability and, consequently, their coverage by social protection and benefits.

[6] Behind these issues is what some authors call empirical temporality, which refers to the fact that stability is not so much determined by the nature of the contract as by the productive structure (Cebrián et al. 2011).

EMPLOYMENT STABILITY IN THE SPANISH LABOUR MARKET REFORMS

Studies of the ways the initial moments of a career path may stigmatize individuals in later stages of their working lives provide evidence suggesting that most workers who access the labour market through an open-ended contract achieve better results in terms of wages and job security (Arulampalam et al., 2001; OECD, 2014).

An ILO analysis of the labour market transitions of young workers (ILO, 2014) defines stable employment as employment with a contract of greater duration than twelve months; the opposite of stable employment is temporary employment, or wage and salaried employment of limited duration. The analysis of the types of contracts available to young people entering a job could help to understand how they reach labour stability and accumulate experience.

Following the European Commission's guidelines on flexicurity principles, Spanish governments have implemented successive labour market reforms. Two of these occurred in 2010 and 2012, the worst years of the last economic crisis. A significant part of these measures focused on ways to solve the endemic shortcomings of the Spanish labour market resulting from the duality between permanent and temporary workers. The reforms introduced new measures designed to promote permanent hiring and protect specific groups, such as young people, with new forms of permanent employment that could benefit both employees and employers. These two reforms were intended to create more and better jobs, with a particular focus on young people, discouraging temporary hiring and encouraging the use of permanent contracts. The promotion of permanent employment was accompanied by reductions in the costs and conditions that justified dismissals, making permanent contracts insecure and challenging their suitability to the task of increasing the quality of employment. In the end, external flexibility could increase, negatively affecting stability and increasing labour precariousness (Ruesga et al., 2016).

Employment instability in Spain is partly explained by the country's productive structure. Some of the economic activities in which a considerable proportion of Spanish employment is concentrated have low productivity and do not require skilled labour. The country's employment structure is also polarised between a large number of small firms and fewer large companies. Small and medium-sized firms base their competitiveness on external flexibilitity such as fixed-term contracts (Febrero and Uxó, 2011). In this context, labour reforms have seen their effectiveness moderated, and the segmentation of the labour market between temporary and permanent workers has been attenuated by the increased instability faced by both groups. Labour market flexibility contributed significantly to the negative consequences experienced by young people during the recession (O'Higgins, 2012). In Spain, the temporary employment rate of workers under 30 remains very high, even following the recession, at more than 50%.

Since the 1990s, measures to promote stable employment have been developed using two types of subsidised open-ended contracts with reduced social security contributions: namely, an initial contract and the conversion of a temporary contract to an indefinite one. Conversions appear to have represented an effective way of increasing labour stability in general (Cebrián et al., 2011) and for young people in particular (Escudero, 2016). For instance, the labour reform implemented in 2012 (RDL 3/2012) sought to promote youth employment by reducing young people's labour costs, increasing their flexibility, reducing their training requirements and creating new temporary contracts. The 2010 reform (Law 35/2010) also increased the cost of temporary contracts (by raising the social security contributions paid by the employer and ending contract costs); furthermore, since 2012, all types of contracts have had the same severance payment. Additionally, both reforms relaxed the requirements for declareing objective dismissal.

The procedures to restrict dismissals have the principal aim of improving employment stability, but they nevertheless determine employment entry and exit flows, which can ultimately damage flows in the labour market and the levels of employment. The initial hypothesis is that protection measures for indefinite employment reduce the degree of rotation in these positions and promote other types of contracts with fewer restrictions and lower exit costs (Cahuc, 2014). This may be said to represent the Spanish case, where the legislation on dismissals establishes different conditions for temporary and indefinite workers (Bentolila et al., 1994). On the other hand, the underlying idea behind these reforms was that open-ended contracts are the principal source of safety, stability and labour protection, offering an alternative to the high temporality rate in the Spanish labour market. This perspective is applied to the entire Spanish labour market, although it is also seen as an alternative for the youngest workers, since many of the measures to promote indefinite contracts have been focused on those under 30 years of age. For instance, the "entrepreneurs' contract" (RDL 3/2012 and Law 3/2012)—intended to encourage open-ended contracts in firms with fewer than 50 workers—introduced an additional fiscal incentive for young workers. Social security contributions were reduced, fiscal reductions were applied, and probation periods were extended to one year to help young people access employment. Measures to promote the use of open-ended contracts by way of fiscal incentives and subsidies have often been accompanied by a restriction, whereby the company cannot modify its net staff size for at least the period that the incentive lasts.

Other changes were introduced to training contracts (RDL 10/2011[7], Law 3/2012 and Law 11/2013[8]) and the implementation of the *Sistema Nacional de Garantía*

[7] Royal Decree-Law 10/2011, of 26 August, on urgent measures for the promotion of youth employment, the promotion of employment stability and the maintenance of the professional requalification programme for people who have exhausted their unemployment protection. *Boletín Oficial del Estado*, 208, of 30 August 2011. https://www.boe.es/eli/es/rdl/2011/08/26/10/con

[8] Law 11/2013, of 26 July, on measures to support entrepreneurs and to stimulate growth and job creation. *Boletín Oficial del Estado*, 179, of 27 June, 2013. https://www.boe.es/eli/es/l/2013/07/26/11/con

Juvenil, or National Youth Guarantee System (Hernández-Díez and Gentile, 2015) to enable young people to receive good offers of employment, continuing education, improved learning practices or access to apprenticeship training. It also now rewards open-ended employment for the young beneficiaries of this system.

The "first youth employment" contract for workers without labour market experience (Law 11/2013) also encourages the transition to open-ended contracts, known as "flat rate" contracts (RDL 3/2014, RDL 1/2015[9]), with a flat rate or exempt minimum (since 2015) of business social security contributions to cover common contingencies. However, in quantitative terms, it does not appear that these incentives have had a significant and positive effect on youth recruitment and stability (Rebollo-Sanz and García-Pérez, 2009; Cebrián and Moreno, 2015).

In summary, the legislative framework offers a range of incentives designed to promote permanent employment, and it is interesting to determine whether young workers with one of these new open-ended contracts have more stable labour trajectories and, if so, to explore the possible consequences for their social protection.[10]

DATA AND METHODS FOR THE ANALYSIS OF EMPLOYMENT STABILITY AND LABOUR TRAJECTORIES

The following analysis seeks to provide evidence on how legislative efforts to promote the use of open-ended contracts and encourage employment stability should be reflected in an increase in the number of open-ended contracts for young people and longer durations of employment.

The results of econometric models make it possible to check whether this has in fact occurred. On the one hand, duration analysis of the employment episodes of individuals with permanent contracts helps to identify the extent to which the type of contract and hiring subsidies may favour the length of time a person is employed. On the other hand, the multinomial model gives information about the probability that young people who start a permanent job will continue in it or change their employment situation.

The micro-level dataset used in this paper is the MCVL, constructed using Spanish administrative records. It provides annual information on more than 1 million people who have had some type of relationship with the Social Security Administration

[9] Royal Decree-Law 3/2014, of 28 February, on urgent measures to promote employment and permanent hiring. *Boletín Oficial del Estado*, 52, of 1 March, 2014. https://www.boe.es/eli/es/rdl/2014/02/28/3
Royal Decree-Law 1/2015, of 27 February, on second chance mechanism, reduction of financial burden and other social measures. *Boletín Oficial del Estado*, 51, of 28 February, 2015. https://www.boe.es/eli/es/rdl/2015/02/27/1

[10] All the type of contracts and incentives are detailed in SEPE: https://www.sepe.es/contenidos/que_es_el_sepe/publicaciones/pdf/pdf_empleo/bonificaciones_reducciones.pdf

at any time during the reference year, including as recipients of pensions and unemployment benefits and employed and self-employed workers, but excluding individuals registered only as recipients of medical care, or those associated with a different social assistance system (that is, certain public sector employees, for example from the armed forces or the judicial branch). The data were drawn from a 4% non-stratified random sample of all people included in the social security system year by year and consisted of nearly 1.1 million individuals per year. The sample was restored for each period to ensure it remained representative of the population.

The longitudinal design of the MCVL allows a worker to be followed from 2005 to 2015. Once an individual has been included in a wave, and subsequently remains registered with the Social Security Administration, they remain part of the sample.

When a young worker is registered in the social security records as employed, information about their labour trajectory becomes available. New entries into permanent employment were selected using the panel version of MCVL, for the period between 2005 and 2015. This makes it possible to establish representative employment spells for the entire population for the period of analysis and it is viable to observe every worker registered in the MCVL between 1 January 2005 and 31 December 2015. Contracts initiated in 2013 can be tracked for at least two years, as the database contains information up to 2015, allowing their duration over those two years (2013-2015) to be checked. Thus, for all contracts initiated between 2005 and 2013, a homogeneous two-year tracking window was established. This gives us an observation period of at least two years to follow every employment spell started between 1 January 2005 and 31 December 2013, making it possible to determine whether entries into permanent contracts, before and during the economic crisis, represent a path to stability in the labour market. The sample includes 128,256 young workers, with 191,869 employment spells corresponding to a permanent contract.

Table 1 presents the average relative duration of several types of these permanent contract episodes, taking into account the differences in regulation caused by the design of social security contributions. The available information distinguishes between whether the contract is initial or a conversion from a fixed term contract, in both cases whether subsidies to reduce social security costs were provided, as well as whether employment is full or part time. It also provides information on the year the contracts started and the date they ended (if they did) indicating whether they were still current at the end of the period (31 December 2015).

Table 1.
Percentage of permanent contract spells still current on 31 December 2015 and their relative duration.

Starting year		2005	2006	2007	2008	2009	2010	2011	2012	2013
Surviving contracts on 31 Dec 2015 (%)										
Full time	*Ordinary*	11.1	12.6	13.4	16.5	18.9	22.5	27.1	31.4	35.3
	Subsidised initial	7.7	7.4	9.4	11.7	14.2	16.5	37.0	28.1	41.0
	Subsidised conversion	14.1	16.4	24.4	32.5	39.1	38.7	49.2	52.1	52.9
	Conversion (w.out subsidies)	14.1	15.9	19.7	23.8	29.6	34.9	42.7	46.0	51.4
Part time	*Ordinary*	6.1	6.7	7.2	9.6	10.7	12.9	14.5	19.6	21.5
	Subsidised initial	4.9	4.7	5.0	6.0	8.4	8.2	**13.5**	**7.8**	**5.3**
	Subsidised conversion	8.5	10.8	21.4	32.6	**35.3**	**33.9**	**45.6**	**60.0**	**48.3**
	Conversion (w.out subsidies)	7.6	11.2	14.0	17.9	19.0	22.9	27.5	31.3	36.9
Average relative (potential) duration (%)										
Full time	*Ordinary*	26.6	27.9	29.7	33.7	35.4	38.8	42.8	44.8	45.5
	Subsidised initial	24.8	23.0	24.7	28.4	31.4	36.2	51.3	43.2	50.5
	Subsidised conversion	30.9	33.9	42.0	47.4	50.8	50.5	53.4	58.9	65.1
	Conversion (w.out subsidies)	28.4	32.0	35.0	39.3	42.4	45.7	48.3	50.1	56.7
Part time	*Ordinary*	18.1	18.5	18.8	22.8	27.0	28.3	30.4	34.6	36.3
	Subsidised initial	18.0	14.8	15.2	18.0	24.6	24.9	29.3	26.5	**20.2**
	Subsidised conversion	23.6	27.0	37.1	49.0	48.7	42.2	47.3	**55.6**	**66.0**
	Conversion (w.out subsidies)	23.5	27.1	30.6	34.8	35.8	38.8	41.3	42.6	48.8

Note. Cells with bold type are not significant.
Source: MCVL, 2005-2015

Table 1 also includes the percentage of potential duration, showing how long the employment spell lasts and considering the latest end date. All this information highlights a key issue: the percentage of conversion contracts that survive to the end of the period is higher than that of any other type of contract. In addition, this percentage increases even more if the contracts have been subsidised. Initial contracts without incentives, which are called "ordinary", seem to be more stable than other types of initial permanent contracts. In general, relative duration is shorter

for part-time than for full-time employment, especially in the case of subsidised initial contracts, while conversions and full-time contracts are more likely to represent a path towards stability.

However, the information in Table 1 is merely descriptive and needs to be complemented by a model that controls duration using several variables. The analysis of the duration and the survival rate of contracts must account for their starting date and might be influenced by a range of personal and job characteristics and conditioning factors. The method used to evaluate the effect of these factors on the duration and survival rate is a Cox proportional hazard model (Cox, 1972).

The Cox model is expressed by a hazard function, which may be interpreted as the risk of being outside the social security system at the end of the observation period. The covariates are personal and job characteristics, and the estimated coefficients measure the impact of those variables. A hazard ratio (HR) can be greater than zero; HRs are here represented by the quantities $exp(b_i)$. A value of b_i greater than zero means an HR greater than one and indicates that as the value of the covariate increases, the hazard of ending the contract increases and the length of survival decreases. Thus, an HR above 1 indicates that the explanatory variable is positively associated with probability of the event occurring and negatively associated with the length of survival.

This model measures the time from the beginning to the end of an open-ended contract, with a potential duration of at least 730 days, allowing us to analyse when the worker is hired with a new initial, or a conversion open-ended contract, with or without subsidies, observing it during the trial year plus at least one additional year.

The dependent variable is the duration of the open-ended contract when the worker is younger than 30 years of age. Some contracts continue within the social security system at the end of the period; hence, the survival time is considered right censored, as these contracts remain "live", and it is not possible to determine how much longer they will last. However, other contracts in the social security system have expired; therefore, they already have a specific duration and are considered "dead".

To further analyse the stability of the open-ended contracts initiated by young people during the observation period, a multinomial model was estimated. Multinomial logit models were used to model relationships between a polytomous response variable and a set of regressor variables. This is the case when analysing the characteristics that influenced the probability that a person with an open-ended contract would remain in the same situation two years later compared to workers who transitioned to another labour status, for example, unemployed, employed under a different contract or inactive.

The multinomial model analyses which characteristics influenced the probability that a young person, under 30 years of age, with an open-ended contract would remain in the same situation two years later (46.4%) compared to those workers who transitioned to another labour status: (a) employed under a different open-

ended contract (12.1%), (b) employed with a fixed-term contract (14.8%), (c) self-employed or employed in any other situation not included in the previous categories (1.8%), (d) unemployed in receipt of benefits (8%) or (e) excluded from the sample because the person might be unemployed without access to benefits, or be economically inactive (17%). The results of the model identify the estimated probabilities. Coefficients above 1.0 indicate a higher probability for the status or characteristic under examination than for the reference status, while coefficients under 1.0 indicate the reverse.

The sample selection is based on the first open-ended contract spells starting in each two year period between 2005 and 2013 for all subjects (59,360 spells). The multinomial model has a dependent variable with six categories, the reference being when the initially observed employment spell remains live two years later and the other five categories being the other five possible situations after two years.

The characteristics of the worker and their job can determine the duration of an open-ended episode as well as the probability they will remain in stable employment. Personal characteristics considered here are sex, age and time since the worker was first registered in the social security system, which serves as a proxy for their labour market experience. Job characteristics considered here are the autonomous community (Spanish administrative regions) in which the firm operates, sector of activity, type and size of firm, affiliation group in the social security system (with reference to the contributory type in terms of rights and responsibilities: a proxy for occupational level), type of open-ended contract and working time (part- or full-time). Other variables considered are those regarding the economic cycle, such as the year when the contract was registered in the social security system and the quarterly employment rate in the respective autonomous community.

RESULTS AND DISCUSSION

The Great Recession had a clear negative effect on youth, with many young workers being expelled from the labour market, a massive increase in unemployment and a notable reduction in the probability of finding a job. During the years prior to the crisis, young workers were able to find a job even if they had a low level of qualifications. However, in 2008, the scene changed completely and many young people who had left the educational system to work became unemployed and decided to return to education, becoming economically inactive again (Rocha, 2012).

Until the first year of the recession, the probability of entering an open-ended contract rather than a fixed-term one was positive. However, the economic incentives to promote permanent employment did not significantly increase that probability (Cebrián and Moreno, 2015). In fact, the percentage of permanent contracts among all those registered remains very low, making it difficult to justify the public cost of those incentives. Nevertheless, the government could have improved the path to stability for young workers if they had given them the opportunity not

only to enter a more secure job but also to continue employment in subsequent years. To verify this, the econometric analyses carried out are presented in sections below, alongside their results.

Duration Analysis of the New Open-ended Jobs[11]

The duration analysis results for open-ended contracts in Table A1 (see Appendix) show that, considering the year when the contract was registered with social security, since 2009—the worst year of the slump—average net duration has decreased continuously.

Other results to be highlighted are, first, related to sex. Men and women under 30 have no significant differences in terms of spell duration. This outcome indicates that there are no gender differences at the beginning of workers' labour market careers, when they have approximately the same working experience and both are at the same point in their life cycles, probably living in the parental home and without family burdens.[12] Nevertheless, it is known that Spanish young people delay emancipation for longer than their European counterparts. There are several reasons for this, but they usually need the economic support of their families (Ayllón, 2014, Cantó et al., 2022).

Secondly, age is positively correlated with duration; hence, labour stability is gained over time. Time increases the probability of finding a permanent job and the probability of keeping it for a longer time (Countouris et al., 2016).

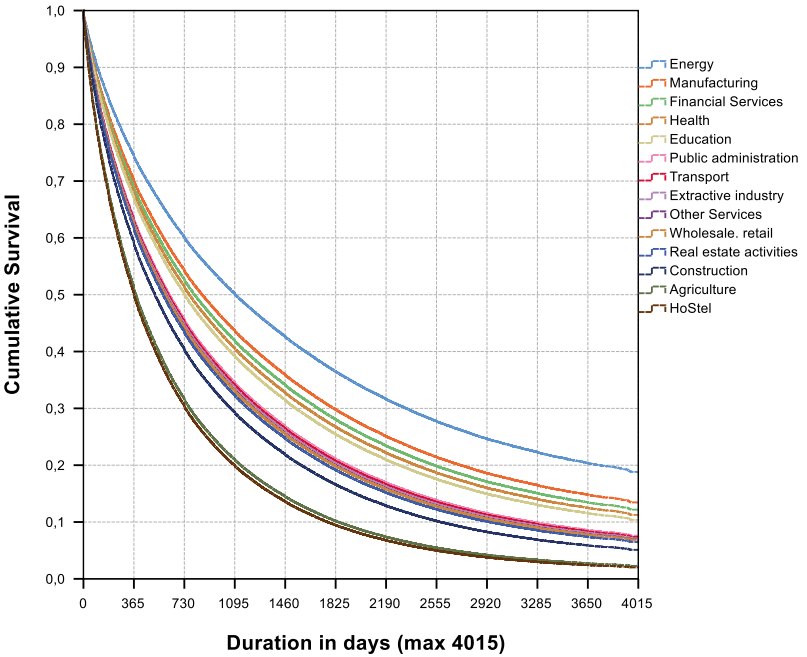
Some autonomous communities (Asturias, Castilla-La Mancha, Galicia, the Basque Country, La Rioja and the autonomous cities of Ceuta and Melilla) have similar results to Andalusia, which represents the reference category. However, the Basque Country and La Rioja have better labour market performance. Catalonia and Madrid present greater risk rates than Andalusia, although in both communities, SEPE data suggests that it is more likely that a young worker will enter into a permanent contract. These results reflect the well-known regional disparities in the temporary employment rate and in the sectoral structure of employment (Fundación BBVA-IVIE, 2019).

The sector of economic activity involved is an interesting and significant variable (Figure 1). Energy, manufacturing, transport, financial services, education and health have higher durations of spells, while spell duration is shorter in agriculture, construction, accommodation and food service activities and real estate companies. The proportion of permanent contracts is lower in those sectors with the shortest durations, such as commerce and hospitality, where the use of temporary contracts is not only a means of entering the labour market (as a way of selecting and testing workers) but also of maintaining unstable employment practices,

[11] Hazard rates and significance levels are in Table A1 in the appendix.

[12] Data do not allow us to distinguish between household members and their family relationships.

Figure 1.
Survival profiles (duration in days) by sector of activity



Source: MCVL, 2005-2015.

so that labour needs can be adjusted in the event of economic difficulties (Cebrián and Toharia, 2008).

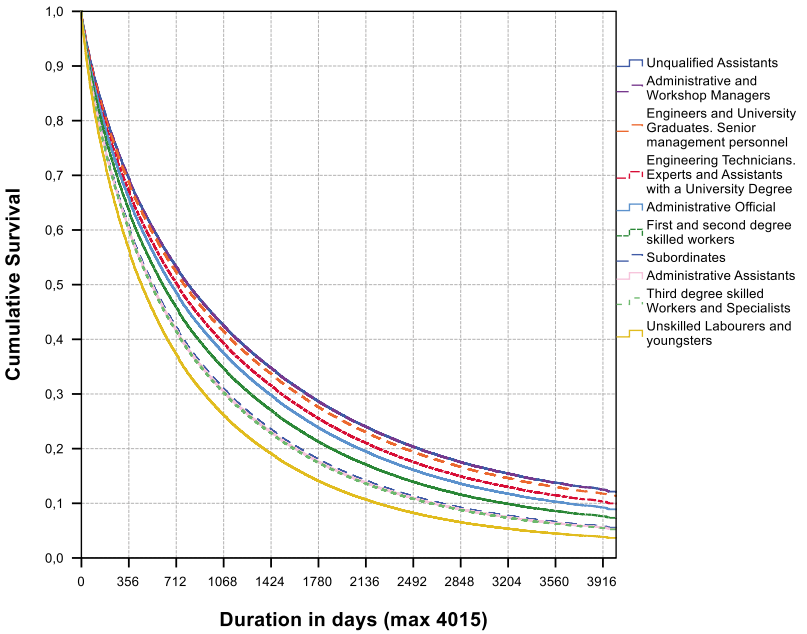
The contribution group or "professional status" may be considered a proxy for occupational level because it also reports the type of tasks carried out during the course of employment (Figure 2). This is a significant variable, with all the categories having longer spells than the reference category of unskilled workers. Workers here also have a higher probability of being associated with a permanent contract.

The type of company is another interesting variable. On the one hand, limited and public companies are negatively related to the length of employment spells, but on the other hand, cooperatives and other societies exhibit a positive effect on duration.

It is worth noting that one of the most interesting results is related to the type of permanent contract. The results from Table A1 are reflected in Figure 3 where the lines trace the survival rates of the various categories of contracts, distinguishing between full-time and part-time contracts.[13] There are significant differences between initial contracts or conversions from temporary contracts and between part- and full-time contracts. First, access to a permanent contract as a result of

[13] Survival profile lines are sorted from the highest to the lowest level.

Figure 2.
Survival profiles (duration in days), by professional status



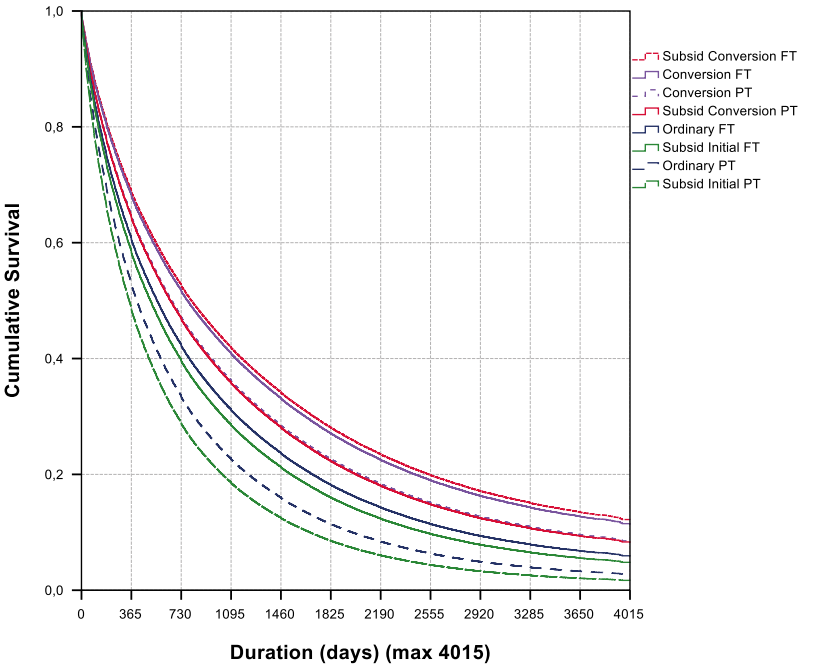
Source: MCVL, 2005-2015.

conversion from a temporary contract (with or without subsidies) is more likely to last longer than if it is permanent from the start, as shown in Figure 3. These contracts last longer, especially if they have been promoted with subsidies to reduce the social security contributions paid by employers and they are full time.

It must also be pointed out that after the first year, approximately one-third of conversion contracts are "dead" (they are no longer registered in social security records), but for initial permanent contracts, the proportion rises to 40% or up to 50% if the contract has been subsidised. Regarding the second year, only half of total permanent contracts are "live", a percentage that declines to 40% if initial contracts are considered. By the end of the period, most permanent contract spells are "dead".

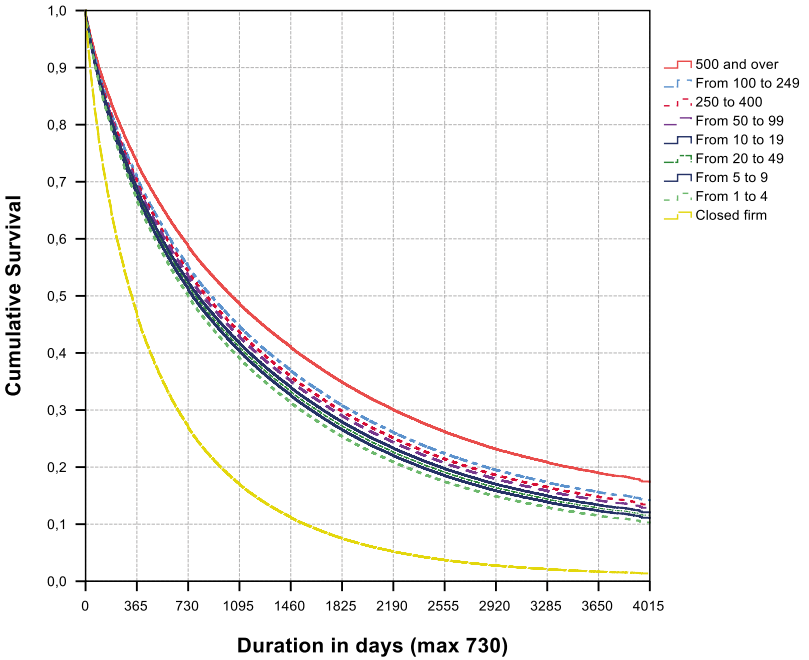
It should also be stressed that firm size is another interesting variable, because an important aspect of the economic effort made by the Spanish government has focused on small and medium-sized firms. As a result, there is a negative correlation between permanent employment and firm size (Cebrián et al., 2011; Conde-Ruiz et al., 2011). However, as Figure 4 shows, the survival rate is positively correlated with firm size. This means that, although a person is more likely to find a permanent job with a small firm, they are also more likely to lose it.

Figure 3.
Survival profiles (duration in days) by type of contract



Source: MCVL, 2005-2015.

Figure 4.
Survival profiles (days of duration) by firm size



Source: MCVL, 2005-2015.

Permanent Contract Stability of Spanish Young Workers: Multivariate Analysis[14]

The previous sections have demonstrated instability to be one of the main characteristics of the Spanish labour market, especially regarding youth permanent employment. Not only do fixed-term contracts have extremely short durations, but open-ended contracts are also unstable. As detailed above, fewer than 50% of all open-ended contracts remain live two years after they started. The probability of being in the same permanent contract two years after it began is higher for episodes of employment initiated before the economic crisis arrived.

The multinomial analysis results in Table A2 (see Appendix) show that males are more likely than females to be in self-employment or in other types of contracts after two years and that males are less likely to end up unemployed and in receipt of benefits. Exclusion from the sample is more probable for males two years after having an open-ended employment episode.

Age at the start of the episode shows that the older an individual, the higher the probability of being in the same contract rather than in another one, or in receipt

[14] Results are detailed in Table A2, in the Appendix.

of unemployment benefits; however, these individuals are also more likely not to figure in the MCVL. This last finding might be the consequence of an individual having been in a job but only for a short time, with the result that after two years, they have exhausted their benefits and has lost the right to participate in the social security system.

Work experience, measured by the time elapsed since the first employment episode registered by the social security system, has the same type of positive effect as age on the probability of stability. However, it also increases the probability of being unemployed and in receipt of benefits, as the worker has had the opportunity to pay social security contributions for longer.

The coefficients of the variable "professional status" show that a worker is less likely to make a transition when the category is associated with a higher qualification, and thus, stability is related to qualifications.

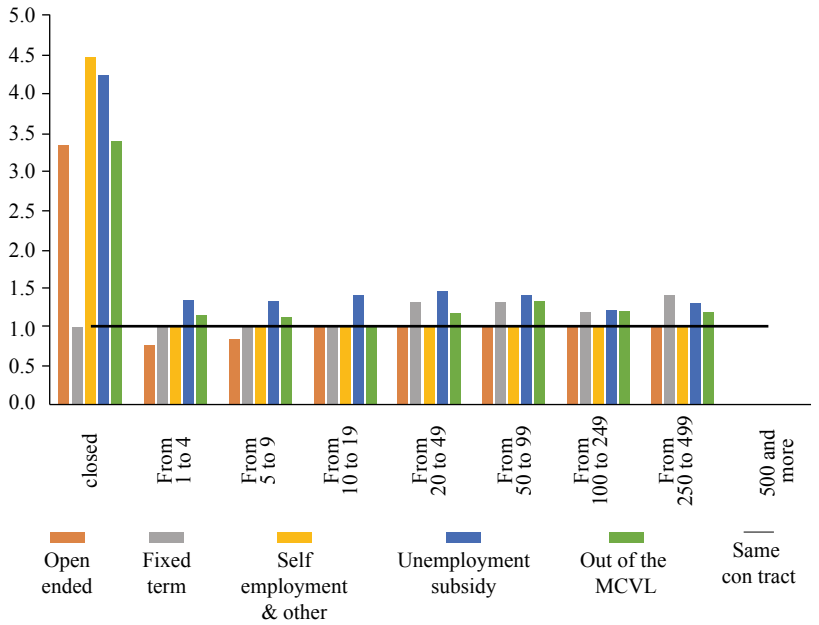
Part-time initial contracts are associated with a higher probability of instability than are full-time contracts.

An initial contract in the public sector is more stable after two years than in any other type of employment, and starting a career working for an individual firm or another type of company increases the probability of a transition from an open-ended to a fixed-term contract.

In geographical areas with an income level below the national average, the probability of ending in an open-ended contract is lower than in areas with higher income levels.

It could be that when an employment episode is selected and included in the sample (MCVL) but the firm has subsequently closed, it is more likely to be in any other situation in two years' time than to remain in the same episode. Figure 5 illustrates the relative probabilities for each size of firm and for both estimations. On the other hand, firms with 500 or more employees are associated with a higher probability of stability, while the smallest firms are more likely to be associated not only with a transition to unemployment or losing social security coverage, but also to a fixed-term contract. Note that these probabilities increase for a firm size of up to 100 workers and decrease thereafter. Stability is greater in the largest firms.

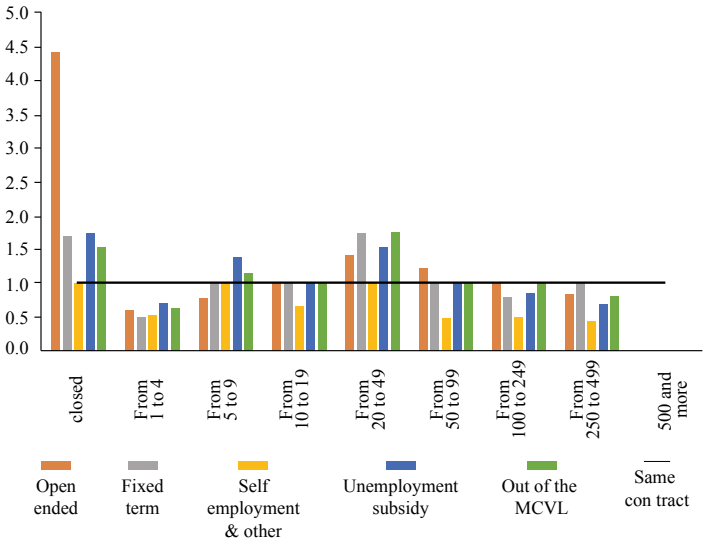
Figure 5.
Probability of being in the same initial contract by the size of the firm



Source: MCVL, 2005-2015.

In the agricultural sector, when the initial contract is open-ended, the probability of being in another open-ended contract is very high (Figure 6), while a transition to a fixed-term contract, unemployment or to exclusion from the sample is more likely than the category of reference. Workers employed in industry and collective services are more likely to remain in the same initial open-ended contract than those employed in other sectors, while construction is associated with a higher likelihood of a transition from an initial open-ended contract to unemployment or exclusion from the sample. The hospitality sector has the greatest likelihood of a transition occurring in two year period. These coefficients reflect the most unstable sectors, where contracts are of shorter duration.

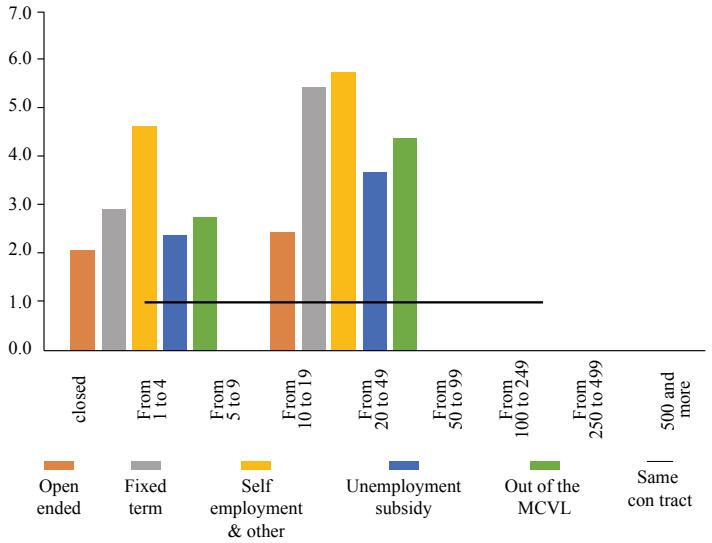
Figure 6.
Probability of being in the same initial contract by economic sector



Source: MCVL, 2005-2015.

Figure 7 shows the probability of transition according to the initial type of contract. If the initial open-ended contract is a conversion from a temporary contract, the worker enjoys higher stability than in the case of ordinary or subsidised open-ended contracts. Starting with one of these two open-ended contracts increases the probability of changing to a different situation in two years.

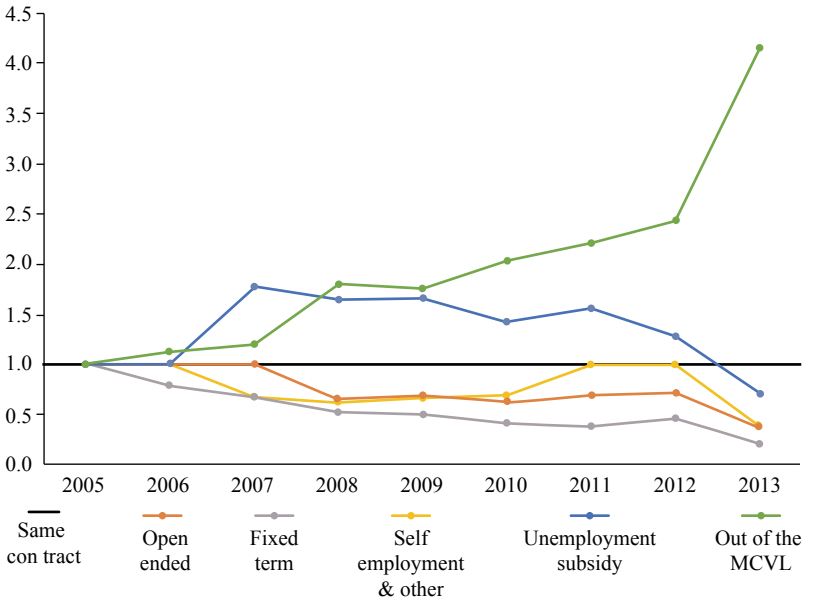
Figure 7.
Probability of being in the same initial contract by initial type of contract



Source: MCVL, 2005-2015.

The year when the contract begins is a proxy for economic conditions. Figure 8 shows the probabilities estimated for this variable. The probability of being out of employment (unemployed or out of the MCVL) two years later is higher for episodes of employment that were initiated during the economic crisis, and the probability of being in another employment spell is less than one for all periods when the initial contract was open-ended. The probability of being in unemployment and in receipt of benefits decreased over the period. The high rotation in the Spanish labour market, especially among young people, prevents individuals from reaching the length of contributions necessary to access to unemployment benefits.

Figure 8.
Probability of being in the same initial open-ended contract



Source: MCVL, 2005-2015.

CONCLUSIONS AND FINAL COMMENTS

In Spain, the Great Recession led to an increase in the global unemployment rate from 8% in 2007 to 27% at the beginning of 2013, one of the highest levels in the EU. This was reflected in the case of young people, who suffered the worst deterioration in their labour market situation during the period, reaching very high unemployment rates (44% for those aged 16-29). In addition, young workers faced significant levels of precariousness. They primarily entered employment under fixed-term contracts, with a high rate of rotation and a lack of stability. Empirical studies demonstrate that access to employment does not achieve full labour market integration, and young people alternate between working in different jobs, with periods of unemployment. This situation handicaps their life projects and delays their emancipation.

The promotion of youth employment in order to resolve these problems and mitigate their effects has been one of the main objectives on the political agendas of all Spanish governments since 1984. For this purpose, in recent decades, several measures and long-term projects have been launched, such as the reform of the education system (Escudero, 2016), intended to improve youth employability. However, other short-term measures have been focused on achieving an immediate impact on the employment rate, such as those designed to encourage the hiring

of young workers. The paradigm of stability has mainly been based on the promotion of open-ended contracts.

Using data from the panel version of the MCVL between 2005 and 2015 it has been possible to analyse the employment and labour trajectories of young workers with permanent contracts. The selected sample included young workers who initiated employment at any time between the start of 2005 and 31 December 2013, and followed them for at least two years. This analysis has produced some interesting findings that have been used to determine whether permanent contracts are the path to labour market stability. Access to permanent employment has some advantages for employees, especially if the contract started before 2008, but neither incentives nor the new permanent contracts introduced by the 2010 and 2012 reforms have improved employment stability.

On the one hand, it is more probable that these young workers will maintain their status in the social security system at the end of the period analysed. Conversely, there is a higher probability that individuals who have mainly been employed under temporary contracts will not be in the system after two years. During this period, they had made fewer social security contributions and experienced a higher number of registered affiliation episodes. Hence, young workers who started in fixed-term employment suffer a higher level of rotation and have been able to make contributions during a shorter period of time, with a negative effect on their access to future unemployment benefits and pensions. In fact, the average duration of temporary employment is approximately two months, which is only one-sixth the time needed to gain access to unemployment insurance. In contrast, young people with permanent contracts have longer periods during which they can make contributions to the social security system. Although they also suffer employment rotation, the average duration of these open-ended contracts is less than half of the expected duration. Moreover, young people who start employment in a temporary contract, and have this type of contract only, have a lower probability of being covered by the social security system after two years. This probability increases considerably if they have any permanent contract.

Considering this result and the interest of labour authorities in promoting subsidised permanent employment, it is appropriate to investigate which elements determine the duration and stability of these permanent contracts. The analysis reveals that young people suffer a high degree of instability even if they have an open-ended contract. In fact, after the first year, independently of the type of permanent contract involved, the average probability of ending the contract increases by over 40%. The percentage of conversion contracts still live at the end of the period is higher than that of any other type of contract, and this percentage increases more if they have been subsidised. Initial contracts without incentives (known as "ordinary" contracts), seem to be more stable than other types of initial permanent contract. In general, the relative duration is shorter for part- than for full-time contracts, especially in the case of subsidised initial contracts. Consequently, conversion contracts—alongside full-time jobs—are more likely to be on the path to stability. Outcomes from the

analysis of economic sector, contribution group and company type indicate that permanent contract stability is positively linked to higher productivity sectors, higher occupational levels, larger firms and new company models.

The multivariate analysis of the situation two years after starting an open-ended contract shows that stability depends on previous labour experience. Contracts in the public sector, industry or energy sectors and full-time contracts are more stable than others. If the initial contract is an ordinary open-ended one, the probability of being unemployed or excluded from the sample is less than in the case of a subsidised contract. Once again, the probability of stability is lower in small firms than in their larger counterparts. These results undoubtedly question the decision to use public spending to promote open-ended contracts in small firms, such as the new permanent contracts for companies with fewer than 50 workers.

Spain had not yet recovered from the impact of the Great Recession and the youth labour market was still suffering from the severity of the crisis when the worldwide COVID-19 pandemic hit the economy. This economic crisis has had a profound negative impact on economic growth and employment and it reinforced uncertainty about the future of the overall employment market, which is already faces serious challenges associated with the digital revolution, automation processes, disintermediation and the disintegration of value chains in many sectors of the economy. The growth of unemployment that has resulted from this crisis further underscores the need to invest in the employability of young people and in the development of the professional skills that will be needed in the future. The EU points out the importance of strengthening human capital (European Commission, 2017), and establishes three pillars for this purpose: "quantity, quality and inclusion". Young people have lower quality in work than other workers. In the OECD, as a whole, the quality of youth employment is clearly lower than that of all workers There are wide divergences between countries too, Switzerland having greater quality in terms of earnings and Greece, Spain and Turkey in relation to job insecurity and the quality of the working environment (Picatoste et al., 2022).

In the second quarter of 2020 estimates based on the *Encuesta de Población Activa* (Spanish Labour Force Survey) suggested that youth unemployment had risen by 5.2 percentage points compared to the previous year. This placed youth unemployment above 30%, compared to an overall unemployment rate that had risen to around 15%. Thus, it must be understood that the COVID-19 crisis led to a rapid decline in youth employment, closely associated with the impact of the loss of temporary employment, which has particularly affected young people, because of the strong effect of fixed term employment in the Spanish labour market, especially for this group (López-Ahumada, 2022).

The effects of the COVID-19 on the Spanish economic crisis were compounded by the war in Ukraine, which started in the middle of the first quarter of 2022. This crisis increased the cost of raw materials, especially energy products, accelerating price inflation to rates not seen for decades. Although GDP per working-age person has

been growing at average annual rates of close to 5% this year, it has not yet recovered its pre-pandemic and trend levels (Bosca et al., 2023). Against this backdrop, employment has held up strongly, despite the crisis. In 2022, the figure of 20.29 million jobs was reached, up from 19.1 million in 2019, before the pandemic.

Our results suggest that better measures to promote stable employment are still required. The policies intended to promote stable employment for young people during the Great Recession have not been as effective as was expected, mainly due to the lack of stability of open-ended contracts.

New practices in active labour market policies should be implemented to improve their path to stability. A good example could be the improvement of public employment services, namely profiling, counselling and monitoring alongside more specific training and apprenticeship contracts (AIReF, 2018). In Spain, the percentage of spending on active subsidies was already twice as high as the OECD average in 2009 (32% compared to 16%), while less was spent on training, (22% compared to 29%). It is well known that subsidies have little effect on net job creation. On the other hand, they do have a clear effect, shifting hiring towards subsidised groups as opposed to groups that do not benefit in this way. Moreover, in the first year of the contract, the turnover of subsidised workers is 25-45% higher than those without subsidies. (Cebrián et al, 2011.).

However, according to the latest social security affiliation data, the changes introduced by the last labour reform (RDL 32/2012)[15] have considerably improved youth employment. In the case of those under 30 years of age, the shift towards more stable contracts is particularly notable, temporary employment having fallen by 31 points. In the future, it will be necessary to monitor these new permanent contracts to assess whether this latest labour reform achieves greater stability in youth employment than the reforms carried out during the financial crisis.

In summary, the promotion of open-ended contracts has not had the expected positive results, either in quantitative or qualitative and stability terms. Temporary employment retains a predominant role in the Spanish labour market. The size of companies and the quality of entrepreneurship, business and management are essential aspects for achieving increased productivity, which is one of the economic goals the country has had least success in achieving. Some questions arise: should policies that focus on subsidised open-ended contracts remain? In Spain, a substantial proportion of the money spent on active labour market policies has gone to promote open-ended contracts (AIReF, 2018). Instead, the promotion of training to adapt the qualifications of young workers to the needs of the productive system should be improved, as should the channels of communication and information between the different actors

[15] Real Decreto-ley 32/2021, de 28 de diciembre, de medidas urgentes para la reforma laboral, la garantía de la estabilidad en el empleo y la transformación del mercado de trabajo. BOE size núm. 313, de 30/12/2021

in the labour market. The durability, stability and safety of open-ended contracts in the Spanish labour market are not guaranteed. The basis for the creation of youth employment must be the development of sustainable economic growth based on productivity and competitiveness, improving figures of decent work, social protection, and rights at work within the framework of the 2030 Agenda.

DECLARATIONS

Availability of Data and Materials

The dataset presented in this paper is available to researchers at the Department of Organizational General Directory of Social Security (Seguridad Social: Estadísticas (seg-social.es).

Data used in the empirical analysis and the results are available from the authors upon request

Competing Interests

The authors declare that they have no competing interests.

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Authors' Contributions

Authors have contributed proportionately to the scientific work and share collective responsibility and accountability for the results and conclusions. All authors read and approved the final manuscript.

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APPENDIX

Table A1.
Cox Duration Model

		Hazard Rate	Sig.
Sex	Women	1.000	
Age	16-24	1.068	**
Type of contract	Ordinary FT (&)		
	Subsid conversion FT	0.745	**
	Subsid initial FT	1.075	**
	Conversion FT	0.767	**
	Ordinary PT	1.273	**
	Subsid conversion PT	0.880	**
	Subsid initial PT	1.444	**
	Conversion PT	0.872	**
Autonomous community	Andalusia (&)		
	Aragón	1.069	**
	Asturias	1.000	
	Baleares	1.105	**
	Canarias	1.076	**
	Cantabria	0.939	**
	Castilla-La Mancha	1.000	
	Castile and León	1.034	**
	Catalonia	1.222	**
	Valencian Community	1.143	**
	Extremadura	0.947	**
	Galicia	1.000	
	Madrid	1.284	**
	Murcia	1.081	**
	Navarre	1.073	**
	Basque Country	1.000	
	La Rioja	1.000	
	Ceuta and Melilla	1.000	

(*Continúa*)

		Hazard Rate	Sig.
Firm size	Closed	2.458	**
	1-4	1.303	**
	5-9	1.259	**
	10-19	1.211	**
	20-49	1.236	**
	50-99	1.176	**
	100-249	1.118	**
	250-499	1.150	**
	500 + (&)		
Sector of activity	Agriculture	1.411	**
	Extractive industry	1.000	
	Manufacturing	0.749	**
	Energy	0.624	**
	Construction	1.111	**
	Wholesale. retail (&)		
	Hotels & restaurants	1.458	**
	Transport	0.974	**
	Financial services	0.786	**
	Real estate activities	1.021	**
	Public administration	1.000	
	Education	0.846	**
	Health	0.816	**
	Other services	1.000	
Contribution group	Engineers and university graduates, senior management	0.657	**
	Engineering technicians, experts & assistants with univ	0.697	**
	Administrative and workshop managers	0.639	**
	Unqualified assistants	0.638	**
	Administrative officials	0.732	**
	Subordinates	0.876	**
	Administrative assistants	0.887	**
	First- and second-degree skilled workers	0.790	**
	Third degree skilled workers and specialists	0.892	**
	Unskilled workers (&)		

(*Continúa*)

		Hazard Rate	**Sig.**
Type of frim	Natural person (&)	1.000	
	Limited company	1.054	**
	Other companies	0.941	**
	Cooperative companies	0.825	**
	Public sector	1.003	**
Starting year	2005		
	2006	1.032	**
	2007	1.051	**
	2008	1.000	
	2009	0.960	**
	2010	1.000	
	2011	1.000	
	2012	1.000	
	2013	1.149	**
Number of spells		1.003	**
Employment rate		1.004	**

(Sample size: 191,869 episodes. (&) Reference category. ** Significance at 99%) Source: MCVL. 2005-2015.

Table A2.
Multinomial model: probability of being in the same or different status two years after a permanent contract

		Other open-ended contract		Fixed term		Self-employment & other employment		Unemployment subsidy		Out of the MVCL	
		Sig.	Exp.	Sig.	Exp.	Sig.	Exp.	Sig.	Exp.	Sig.	
Sex	Male	0,988		1,006		1,580	**	0,843	**	1,074	**
	Female										
Age		0,954	**	0,882	**	0,923	**	0,920	**	1,044	**
Professional status	Highest level	0,840	**	0,389	**	0,722		0,283	**	0,625	**
	Medium level	0,842	**	0,537	**	0,851		0,520	**	0,630	**
	White Low & Blue High	0,918	*	0,835	**	0,864		0,769	**	0,799	**
	Blue Low										
Firm size	Closed	3,324	**	3,439		4,476	**	4,256	**	3,382	**
	From 1 to 4	0,770	**	1,034	**	1,276		1,343	**	1,158	**
	From 5 to 9	0,841	**	1,287		1,262		1,340	**	1,134	*
	From 10 to 19	1,023		1,039	**	0,908		1,405	**	1,096	
	From 20 to 49	1,022		1,329	**	0,941		1,469	**	1,170	**
	From 50 to 99	0,985		1,336	**	1,128		1,417	**	1,330	**
	From 100 to 249	1,032		1,209	**	0,998		1,219	*	1,203	**
	From 250 to 499	0,967		1,412	**	1,358		1,312	**	1,195	**
	500 and more										

(*Continúa*)

Year	2006	0,964		0,791	**	0,978		1,011		1,127	*
	2007	0,929		0,675	**	0,663	**	1,773	**	1,202	**
	2008	0,664	**	0,519	**	0,625	**	1,643	**	1,798	**
	2009	0,698	**	0,503	**	0,666	**	1,662	**	1,758	**
	2010	0,643	**	0,422	**	0,689	**	1,426	**	2,025	**
	2011	0,696	**	0,390	**	0,900		1,551	**	2,209	**
	2012	0,725	**	0,458	**	1,038		1,277	**	2,429	**
	2013	0,384	**	0,212	**	0,389	**	0,715	**	4,151	**
	2005										
Type of firm	Natural person	0,721		2,097	**	0,569	*	0,991		0,727	**
	Corporation	1,045		2,235	**	0,242	**	0,847		0,772	*
	Other companies	0,840		2,305	**	0,436	**	1,035		0,797	*
	Cooperatives and others	0,798		1,350		0,966		0,621		0,879	
	Public Sector										

(*Continúa*)

Sector of activity	Agricult	4,536	**	1,749	**	0,671		1,793	**	1,567	*
	Indus&energy	0,605	**	0,508	**	0,536	**	0,719	**	0,635	**
	Construc	0,794	**	1,098		0,975		1,419	**	1,163	*
	Retail	0,976		0,989		0,668	**	1,044		1,027	
	Hospitality	1,475	**	1,785	**	1,013		1,574	**	1,783	**
	Transp	1,258	**	0,945		0,483	**	0,865		1,104	
	Financ&agents	1,111		0,810	**	0,496	**	0,855	*	1,079	
	Collective serv	0,855	*	0,920		0,445	**	0,700	**	0,830	*
	Other serv&hh										
Time in the social security system		0,999		0,993		1,016		1,076	**	0,993	
Region	Less developed	0,692	**	0,758	**	1,035		0,975		0,811	**
	Developed										
Working time	Part-time	1,495	**	1,780	**	1,667	**	1,192	**	2,201	**
	Full time										
Type of contract	Ordinary	2,125	**	3,000	**	4,800	**	2,473	**	2,859	**
	Subs-initial	2,505		5,612	**	5,932	**	3,796	**	4,513	**
	Conversion										

(Sample size: 59,360 episodes. (&) Reference category. Significance levels: ** 99%. * 95%) Source: MCVL 2005-2015.

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