

A Moving Springboard? Short-term Contracts and Economic Entry Conditions

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Abstract

This paper investigates how economic entry conditions impact the workers' mobility in early career. We put the emphasize on the role played by the existence of flexible forms of employments. We question more specifically whether fixed-term contracts could attenuate the negative impact that bad economic entry conditions may have on the integration process. While short-term contracts are often considered as a "stepping stone" to permanent employment, they may also lead to lasting precarious trajectories. The use of temporary contracts may be different in depressed and good times, so that the immediate and lasting consequences of the occurrence and duration of this form of employment may differ according to the initial labour market conditions. To analyze the impact of the business cycle on the transitions process in early career, we analyze and compare the trajectories made during the first 3 to 5 years on the labour market by workers that graduated and entered the French labour market at four periods marked by different economic conditions (1992, 1998, 2001 and 2004 respectively). To carefully model the dynamic process underlying labour market trajectories, we use a multi-spell multi-state transition models. For each cohorts, we model the impact of observed and unobserved individual characteristics and of previous events experienced on the labour market. We observe strong discrepancies in the integration processes of new entrants, depending of the economic situations.

JEL : J63, J24, I20

Keywords: *fixed-term contracts ; entry conditions ; duration models.*

WORK IN PROGRESS - DO NOT QUOTE

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Introduction

France, like many European countries, has widely enhanced the labor market flexibility since the middle of the 1980s. Fixed-term contracts and agency temporary work is now widely spread, and accounts for the major part of hirings: on May 2006, more than the two-thirds of hirings in the French private sector were signed under fixed-term contracts. Labor market consequences of short spells on workers' career have been widely debated, following the seminal paper by Booth *et al* (2002). Fixed-term contracts give to a population without professional experience the opportunity to get a job that could be a "stepping stone" to regular job. In a context where the signals sent by diplomas are blurred because of the massive democratization of high education, the multiplicity of diplomas and the inflation of degrees, firms might hesitate before hiring on a permanent contract young workers without work experience. Fixed-term contract is indeed used as a prolonged trying period which can end up to a definite hiring. On the other side, some worried that individuals in short-term employment could be trapped in "dead-ends" and that flexibility results in increasing duality of the labour market.

If substantial empirical literature has explored this so-called stepping effect effect, evidence is still rather mixed and few clear-cut conclusions can be found. The impact of fixed-term contracts depends widely on institutional context: temporary contracts are more likely to give access to permanent employment in flexible than in regulated labour markets. Booth *et al* (2002) e.g. conclude to a stepping-stones effect of temporary contract in Great Britain, while Güell and Petrongolo [2007] or García-Pérez and Muñoz-Bullón [2009] find negative results for Spain.

While young workers are mainly concerned by this evolution of the employment¹, little is known on the consequences of prevailing economic conditions at the time workers enter the labour market on this stepping-stones effect. Yet growing empirical evidence suggests that they could have significant effect on workers' career. The "bad luck" youth that graduates in a recession will suffer important wage losses, that could be long to fade (Oropoulos *et al*, 2008). As shown by Bachmann *et al* (2010), this effect is partially offset by job mobility, that could act as an adjustment mechanism in such a way as to reduce initial wage gaps. This suggests that the impact of short-term contracts on career could widely differ according to economic conditions.

This paper precisely explores how economic conditions impact the career

¹In 2004, more than a young French worker out of five works on a temporary contract

beginning of graduates, putting emphasize on the role of fixed-terms contracts. More specifically we question whether short-terms contracts could attenuate bad economic entry conditions, and for whom. We also look whether some occupations are more prone to give better chance to workers, and which ones.

We have access to surveys that provide very detailed information on (at least) the first three years of labor market experience of young graduates. The samples of these repeated surveys are constituted on the “generation” of young people that graduated respectively in 1992, 1998, 2001 and 2004², thus periods corresponding to sharply different economic conditions. Individuals that begun their career in September 1992 experiment in the early 1993 the worst recession of the French post-war period, except the 2008-2009 recession. On the contrary, those that graduated in 1998 were lucky to benefit of very favorable economic situation. In an attenuated way, 2001 and 2004 correspond also to respectively a depressed situation and an economic recovery. The originality of these surveys is that they are sampled on new beginners on labor force, providing a large sample of this population.³ These surveys provide also information on individual characteristics as well as on characteristics on job and occupation.

In order to carefully model the dynamic process underlying labour market trajectories, we use a multi-spell multi-state transition models, following Bonnal *et al* (1997) (see Doiron and Gørgens [2008], Gagliarducci [2005] or de Graaf-Zijl *et al* [2010] for more recent uses of this method). By assuming that the instantaneous hazards are governed by mixed proportional hazards processes (Lancaster [1990], van den Berg [2001]), we can distinguish between duration dependence and observed and unobserved characteristics. Because we model work history from the exit from schooling, we take job mobility as endogenous and identify lagged duration dependencies (Horny and Picchio [2009]). We consider three main determinants for mobilities on the labour market: observed and unobserved individual characteristics (gender, nationality and level of education), previous events on the labour market (lagged duration and state dependencies), conditions at entry on the labour market (economic environment at the beginning of the considered spell).

Thanks to our large sample size, we provide estimations separately for men and women. Lagged duration is modeled by a detailed piecewise function, in order to capture non linear effects of lagged duration dependencies.

²The current version does not include results for the 2004 entry cohort. These results will be available in a future version.

³The sample size goes from 10,000 to 65,000 graduates depending of the survey.

First estimates suggest strong discrepancies in the mobility in early career depending on the position in the business cycle. The transition from fixed-term contracts to permanent employment appears much less frequent for individuals that graduate during the recession in 1992 than for those that begin their career during the buoying economic situation in 1998. These impacts do not disappear with time.

The paper is organized as follow: we begin by giving a short review of theoretical literature that tries to give some insight on the motivations on the use of short-terms contracts. We then present the French economic business cycle over the considered period. We then present the econometric method and finally the results.

1 Existing Literature

In continental Europe, the use of short-term contracts was introduced in the 80s and in the 90s as a way of curing the “eurosclerosis” (Bentolila and Bertola [1990]). In otherwise strictly regulated labour market, with high firing costs and labour protections, fixed-term contracts allow firms to regulate economic fluctuations. When its economic perspectives are uncertain, a firm will less hesitate to hire new workers when it does not anticipate large dismissal fees in case of economic slowdown. Frictions in the matching process also justify the use of fixed-term contracts as a screening device. As employers do not observe all characteristics of the applicants for a job and cannot perfectly predict the workers’s productivity or the outcome of the match, they can use temporary contracts as a screening tool for permanent employment (Houseman et al. [2003]), as well as a way of increasing workers’ productivity: Engellandt and Riphahn (2005) found positive impact of fixed-term contracts on the worker’s “motivation”, as measured by the job absence and supplementary hours.

All in all, the consequences for workers are unclear. Economic theory predicts that higher flexibility increases hiring, but also lay-offs (see eg Bentolila and Bertola [1990] or Ljungqvist [2002]). The use of fixed-term contracts as screening device is particularly relevant for young workers, who have limited (or no) and thus uninformative work experience⁴. For these reasons, fixed-term contracts can be use a “stepping stones” to regular employment. Besides, they could attenuate the consequences of economic slowdown.

However, temporary agency works and fixed-term contracts could also result in entrapment. Temporary contracts, or secondary sector jobs offer

⁴Especially in countries with low level of transparency of the educational system (Andersen and von de Werfhorst [2010])

poorer opportunities for acquisition of skills: given that temporary employees have a shorter expected job duration, they are offered less training (Acemoglu and Pischke [1998]; Acemoglu and Pischke [1999]) or are less inclined to invest in specific human capital as they expect to leave the firm soon (Booth et al., 2002). Eventually, the result is a dual labour market described by Doeringer and Piore (1971), composed by on the one hand a primary labour market segment offering well-paid positions with good working conditions and structured career ladders, and on the second hand a secondary segment entailing short-term, low-paid work with no career prospects. This situation could occur when the flexibility was only partial, and fixed-term contracts coexist with very strict regulated labour force (as it was the case in Spain, see e.g. Bentolila and Dolado [1994], or in a smaller extent in France).

Institutional settings explain partly why the conclusions of the empirical literature on the impact of short-term contracts was not clear cut. While results are unanimously negative for Spain (Amuedo-Dorantes [2000], Güell and Petrongolo [2007], García-Pérez and Muñoz-Bullón [2009]), they are mixed for others countries. Gagliarducci (2007) for instance finds that access to permanent employment increases with tenure but decreases with job interruption. These effects vary a lot according to heterogeneity.

The role of short-term employment in business cycle was analyzed at the macro level. While the micro-level literature that emphasized the heterogeneity of the labour force, to our knowledge no empirical paper has attempted yet to link flexible work arrangement and business cycle. Poor economic conditions increase the risk of incidence of long unemployment and/or the fact of beginning careers by fixed-term contracts. As in the model of “job queue”, one could assume that best candidates have accessed to short-term contracts in case of economic recession, while they have directly accessed to regular job when the economic climate is better. Recently, there have been a renewed interest for the potential importance of the initial labour market conditions on career path and wages. A growing number of studies have started to investigate the impact of facing with a recession at entry on the labour market on initial wages differentials and long-run wage profiles (Oreopoulos et al. [2008], Brunner and Kuhn [2009], Bachmann et al. [2010]). Overall, the literature suggests that entering in a recession leads to a significant initial wage penalty. It also shows that the degree of persistence of the initial wage penalty depends on the possibilities for the workers to move to higher paid jobs or to renegotiate their wage. In part of the literature, job mobility is understood as an instrument in the wage adjustment process (Oreopoulos [2006], Oreopoulos et al. [2008], Bachmann et al. [2010]).

2 Labour market conditions in France over the 1990s and 2000s

The Generation Surveys correspond to very different entry conditions. The period from 1992 to 2004 corresponds indeed to almost two entire business cycles (see Figure 1). Figures 2 display the evolution of unemployment rates by age group over the period. Young workers were the most affected by economic fluctuations.

In 1993, France experienced the first recession of the post-WWII period. Hirings drop from around 3 million in 91/92 to 2 740 000 en 93/94 (LFS). This affects especially young workers whose unemployment rate increases over the period from 19.4% in 1991 to 27.5% in 1994. The 1992 graduates thus face very difficult economic situation in their early career. In this depressed economic context, one could assume that highly educated young workers are pushed to accept lower skilled jobs, while the less educated are excluded from employment.

By contrast, the 1998 generation has benefited of a much favorable period, as they entered the labor market with the beginning of an economic recovery. The situation of the two following generations are similar, in an attenuated way. The first two years in the labor market of the 2001 generation corresponds to period of low economic growth (but not so bad as the 1992 generation), while the first two years of the 2004 corresponds to a rather good situations (but not so good as the 1998 generation).

Figure 1: GDP growth rate

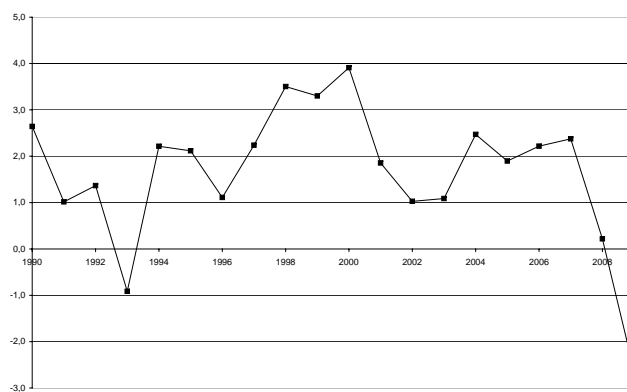
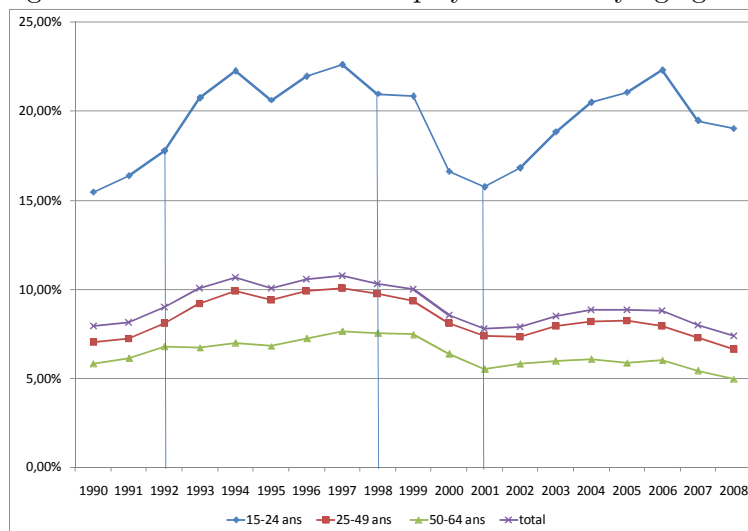


Figure 2: Evolution of the unemployment rate by age group



The institutional regulation of the labor market was rather stable during the period. All regulations rules happened between 1986 and 1990 (see Givord and Maurin [2004] for a discussion of its impact on labor instability).

3 Data

3.1 3 waves of the *Generation* survey

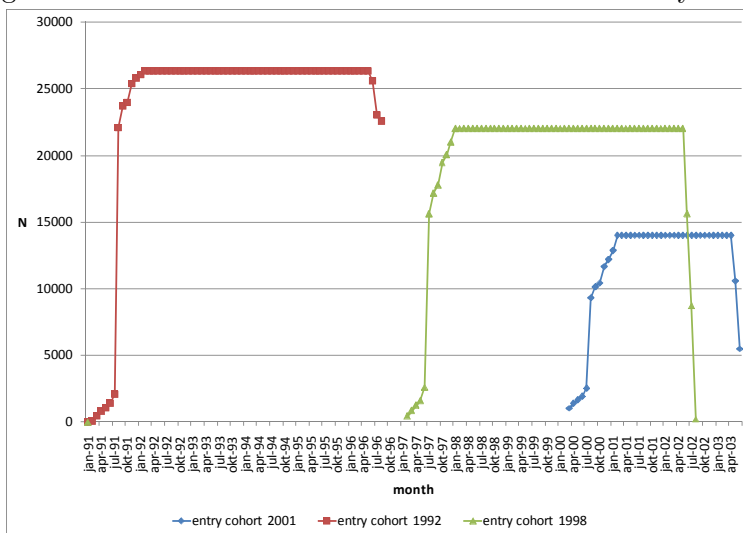
We use different waves of a large scale survey, named *Génération*, which is regularly conducted by the French Center for Research on Qualifications (*Céreq*). The aim of this survey is to precisely document and analyze the first years on the labour market of young workers, at all levels of education. It provides detailed information on the sociodemographic characteristics and work history of a representative sample of individuals who left school for the first time in a given year. Depending on the wave, sampled individuals are followed from 3 to 7 years. The first interview is conducted 3 years later after school completion and follow-up interviews, if any, occurs every 2 years.

We use the surveys of 1992, 1998 and 2001⁵. In the first survey, *Generation* 1992, we have information for about 27 000 individuals that left school in 1992 (20% of the 640 000 school leavers of this year). The second survey, *Generation* 1998, is conducted on approximately 54 000 (out of 742 000) school leavers of 1998. There were 25 000 out of 760 000 school leavers sampled for the 2001 edition. For the 1992 and 1998 cohorts, we

⁵We intent to extent the analysis and include a fourth wave, that was interested on about 65 000 school leavers of 2004. Data are not available to us yet.

have labour market history over 5 years, from 1992 to 1997 and from 1998 to 2003 respectively (see Figure 3). On the contrary, school leavers in 2001 are followed for only 3 years, from 2001 to 2004.

Figure 3: Calendar months of observation for each entry cohort



The sample scheme and size of these surveys, as well as the level of detail in the description of work histories, makes it a privilege source for our research question. For instance, the follow-up is longer and the sample size bigger than what we would get from Labour Force Surveys. Information is retrospective, but is to our knowledge reliable, and should not worry about recall bias that would make us miss short spells: given that the respondents are in the phase of integration on the labour market, we can assume that they seriously keep track of all their transitions on the labour market (for instance, they need to regularly update their CV).

Respondents describe with great detail all job, training, unemployment and inactivity spells they experienced between school completion and the day of the interview. Work history is reported on a monthly basis. For a given employment spell, we know the type of contract, firm size, sector of activity, wage, detailed occupation and the dates of start and end. We know whether the worker was on part or full time, but we have no further information about the number of hours worked. For this reason we do not consider wages in our analysis.

It is worth noticing that changes of contract or occupation in a given firm are reported, so that we observe if a temporary contract is converted into a permanent contract, or if a worker had consecutively two fixed term contract with the same employer. In the 1998 and 2001 surveys, we know

when such changes occurred. The 1992 survey however only reports if there was a change of contract, but do not know when. We will be careful in the comments of our results of this limitation of the 1992 data.

We restrict our samples to individuals who were 16 or above at school completion. We distinguish 2 to 4 types of contracts. As a first step, we consider permanent and temporary employment. In future work we plan to disaggregate temporary employment and to distinguish between subsidized, temporary agency and regular fixed-term contracts. To limit the number of transitions to model in the econometric analysis, we aggregate unemployment and inactivity in a non employment state.

Table 1 gives the main characteristics of each of the three samples. Entry cohorts have very different characteristics, especially in terms of level of education. The 2001 entry cohort is much more educated than the previous ones. The share of women among the 2001 school leavers is also greater. With respect to ethnicity, the three cohorts are similar, even if the share of non French workers increases over the period.

Composition effects may explain part of the differences observed on integration processes, independent on economic business and institutions. We will take advantage on the high level of detail in the schooling variables and carefully control for education in our econometric analysis. Table 10 in Appendix describes the evolution of education more precisely.

Table 1: Sociodemographic characteristics by entry cohort

	1992	1998	2001
N	25 593	22 012	13 982
% female	44.60	49.65	51.88
% non French	3.24	3.49	4.16
Level of education (in %)			
no qualifications	18.05	14.84	7.04
high-school	31.74	19.48	14.52
secondary	16.20	24.68	20.43
college	34.01	41.00	58.00

3.2 Descriptive analysis

For each of the entry cohort, we compute and compare transitions on the labour market over the first 3-5 years after graduation, and focus on the first job, if any. Table 11 reveals that each cohort have very different trajectories on the labour market during their 3 first years of activity.

Table 2 shows that the 1992 graduates are those who took the longest to get their first job. Dispersion is also higher, suggesting that depressed economic conditions create more disparities among workers than good entry conditions. Despite better economic conditions in 1998 than in 1992, a greater share of graduates in 1998 start with a fixed term contract. They also get their first job quicker. One can wonder whether the 1998 graduates get a job faster because they accept more temporary employment or not.

Duration of the first job decreases with the date of graduation. Without further analysis, it is difficult to know whether the long average job duration of the 1992 cohort is due to driven by a share of individuals who get permanent employment immediately. It is worth noticing that discrepancies in duration between the 2001 cohorts and the other ones may come from the fact that the former cohort is observed for 3 years, and that we do not distinguish within firm mobility in the 1992 survey. We will more carefully account for this censoring problem in the econometric analysis and but estimating a duration model on the duration to the first job.

Transitions matrices (see Table 3 reveals that the 1998 and 2001 entry cohorts are somehow alike in terms of mobilities between states, while the 1992 cohort is particularly different. A permanent employment is more sustainable for the 1998 and 2001 cohorts than for the 1992 cohort. Those who graduate in 1992 are more likely to become unemployed after a permanent contract, while those who graduate in 1998 are more likely to remain employed, but on a fixed-term contract. A transition to permanent employment is more likely for the 1998 and 2001 cohorts than for the 1992 cohort. For the latter, more than half of the temporary contract is followed by non employment. Finally, if non employment spells seem longer for the 2001 and 1992 cohorts, those who graduate in good times (2001) are more likely to get a permanent contract at the end of the non employment spell than those who graduate during a recession (1992).

This descriptive analysis reveals how crucial it is to analyze both durations and mobilities between types of contracts to understand the impact of economic entry transitions on early career.

Table 2: First job by entry cohort

	1992	1998	2001
Duration to first job			
mean	7.7	4.59	1.8
std	11.47	8.82	4.31
Duration of first job			
mean	21.55	18.41	16.22
First job on fixed-term contract (%)	70.38	75.27	64.47

Table 3: Transition matrices from state j to state k given the state of origin

j/k	Permanent employment	Fixed-term contract	Non employment	Censored	Total
Permanent employment					
1992	-	8.10	26.30	65.60	100
1998	-	12.83	15.64	71.53	100
2001	-	7.94	12.74	79.30	100
Fixed-term contract					
1992	9.17	20.06	52.07	18.70	100
1998	25.15	28.01	35.10	11.74	100
2001	25.58	25.38	31.47	17.57	100
Non employment					
1992	23.66	60.35	-	15.99	100
1998	20.48	69.35	-	10.17	100
2001	25.73	56.45	-	17.81	100

4 Statistical Model

4.1 Modeling transitions on the labour market

To understand job mobilities in early career, we model the individual transitions on the labour market using multispell and multistate duration models. By assuming that the instantaneous hazards are governed by mixed proportional hazards processes (Lancaster [1990], van den Berg [2001]), we can distinguish between duration dependence and observed and unobserved characteristics. Because we model work history from the exit from schooling, we take all job mobilities as endogenous and identify lagged duration and state dependencies (Horny and Picchio [2009]). Note that we do not encounter the problem of initial conditions because we observe the transition process from the beginning, that is from the exit from initial schooling. We

assume for the moment that individuals do not postpone or accelerate their entry on the labour market depending on economic conditions at the time of graduation. This possible strategic behaviour will be carefully considered in a future version. We consider three main determinants for mobilities on the labour market: observed and unobserved individual characteristics (gender, nationality, age and level of education), previous events on the labour market (lagged duration and/or state dependencies) and conditions at entry on the labour market (economic environment at the beginning of the considered spell and labour market institutions).

To model the process of transitions on the labour market, we define latent processes $U_{jk} \in R^+$, where $j = P, FTC, NE$ denotes the state of origin and k a destination state reachable for state j : $k \in E(j)$ where $E(j)$ is the set of reachable states from j . U_{jk} describes the duration needed to exit state j to enter state k . In our first specification where we do not consider mobility between and within sectors, $E(P) = FTC, NE$ and $E(FTC) = P, FTC, NE$. In our second specification where we allow for sectoral mobility and have a closer look at occupational choice, $E(P) = P^s, P^o, FTC^s, FTC^o, NE$ and $E(FTC) = P^s, P^o, FTC^s, FTC^o, NE$. In both specifications, an unemployed workers can only exit unemployment to get a job on temporary or permanent contracts, whichever the sector of activity: $E(NE) = P, FTC$.

The instantaneous transition rate from state j to state k at the l -th spell in the transition process is defined as follows:

$$h_{jk}(u_l | X_{jk}(\tau_l), E(\tau_0), E(\tau_l), \nu_{jk}) = h_{jk}^{(0)}(u_l) \psi [X_{jk}(\tau_l)' \beta_{jk} + E(\tau_l)' \delta_{jk}, E(\tau_0)' \kappa_{jk} + \nu_{jk}]$$

The baseline hazard $h_{jk}^{(0)}(u_l)$ captures the duration dependence, or the tenure effect. $X_{jk}(\tau_l)$ is a vector of observed individual characteristics, including gender, level of education, nationality and previous labour market history, $E(\tau_l)$ stands for the economic conditions at the time of start of the l -th spell and $E(\tau_0)$ represent the economic conditions and the degree of labour market regulation at entry on the labour market. Finally, ν_{jk} capture the effect of the unobserved heterogeneity on the instantaneous transition from state j to state k . Unobserved heterogeneity is taken as time-invariant over the individual trajectory on the labour market.

For the baseline hazard, we use a semi-parametric approach, with a piecewise constant baseline function, to get precisely estimates of the duration dependence, and more specifically to emphasize potential non linear effects:

$$h_{jk}^{(0)}(u_l) = \exp \left(\sum_{s=1}^M \alpha_{jk}^s \mathbf{1}(u_l \in [s-1; s]) \right)$$

For a given individual i , we observe her L_i successive transitions on the labour market. Under the assumption of conditional independence, we have $f(u_0, \dots, u_{L_i} | X_i) = \prod_{l=0}^{L_i} f(u_l)$.

with $f(u_l)$ defined as follows:

$$f(u_l | Z_{jk}(\tau_l, \tau_0), \nu_{jk}) = \left(h_{jk}(u_l | y_1, Z_{jk}(\tau_l, \tau_0), \nu_{jk}) \right)^{\delta_{ajk}} S_j(u_l | y_1, Z_{jk}(\tau_l, \tau_0), \nu_{jk})$$

where $S_j(\cdot | \cdot)$ is the conditional survival function of the duration u_l is state j :

$$S_j(u_l | y_1, Z_{jk}(\tau_l, \tau_0), \nu_{jk}) = \exp \left(- \sum_{k' \in E(j)} \int_{s=0}^{u_l} h_{jk'}(s | Z_{jk}(\tau_l, \tau_0), \nu_{jk'}) ds \right)$$

$$\text{and } \delta_{jk} = \begin{cases} 1 & \text{if the spell } l \text{ is a transition from } j \text{ to } k \\ 0 & \text{otherwise} \end{cases}$$

5 Results

Tables 4 to 9 below shows the estimated effects of individual characteristics on the transition process. Estimations are conducted separately for each cohort, in order to allow different characteristics to affect differently the transition processes depending on the economic conditions and labour market institutions. Estimations are also stratified by gender. This choice is motivated on the one hand by the gender-specificity of mobilities (Havet [2008] and Blasco and Givord [2010]) and on the other hand by the aggregation of the unemployment and inactivity spells. We start with the comparison between entry cohorts of the link between the main individual characteristics and transition-specific hazard rates. Then, we analysis how previous work history are differently correlated with mobility depending on the economic entry conditions. Finally, we focus on the comparison of the profiles of the hazards rates out of temporary contracts⁶. For concision, we focus here on commenting results for men.

For the three considered cohorts (Tables 4 5 and 6), the diploma is strongly correlated with the transition to and from permanent job: the higher the level of education, the greater the instantaneous probability of getting a permanent employment, whichever the current occupied state (being on a fixed-term contract or being not employed). Higher education also neatly decreases the risk of losing one's job when holding an open-ended contract. Lastly, the higher the level of diploma, the lower the exit rate from permanent employment to temporary contracts. These effects are increasing with the level of education. Quantitatively however, the returns to

⁶Given that the results displayed in the version are without unobserved heterogeneity, we cannot have causal interpretation of our results. Unobserved heterogeneity will be integrated in the next version of the paper.

a certain level of education seem to vary depending on the time of entry on the labour market. Differences on the returns to education change for the other types of transitions: in 1992, it appears that the level of education does not affect the transitions from temporary contract to non employment. This insignificant effect of the diploma on the transition rate from FTC to non employment is not found for the other entry cohorts: compared to individuals that have no education, any diploma decreases the exit rate from FTC to non employment for workers entered on the labour market in 2001. This protective effect of the diploma is only significant for those who entered the labour market in 1998 with a low or average level of education. Having a diploma protect less the 1998 generation (in terms of the risk of losing one's job, or to get an permanent job for instance) than the 1992 generation. It is difficult to analyze whether it is due to business cycle or to a signaling effect, as the overall qualification has increased in these generations (see table 10 in the Appendix). The impact of being non French is less prone to be sensible to this generation effect. Indeed, whereas being non French has a more negative effect in difficult economic situation in 1992 than in 1998, it has no impact on other types of transitions. It also decreases the instantaneous transition from FTC to permanent job and increases the instantaneous risk of losing a permanent job to non employment in 1998. Being non French lengthen the time spent out of employment in 1992. This is consistent with a higher discrimination in case of difficult economic situation. Overall, older workers are less mobile than younger workers. This negative effect of age is consistent across all entry cohorts and all types of transitions. This may reflect a certain stabilization of situation with time spent on the labour market. What is interesting now is to determine whether this stabilization occurs sooner or later depending on prevailing entry conditions. A specification allowing for more dynamics and more flexible age effects will allow to answer such a question.

The baseline hazard functions measure the duration dependence, that is whether the likeliness of one or another transition is more or less increases or decreases with the time spent in one state. The estimates present profiles which are highly non regular. For individuals with a fixed-term contract job, the transition intensity to a job in open-ended contract are dramatically smaller than those to non employment. These transitions (from FTC to non employment) are the highest after two or three months, but decrease afterwards. The chance of getting an open-ended job are highest between three and six months. This results reflect the importance of temporary contracts with a fixed duration shorter than 6 months and could reflect the use of FTC as screening tools before a hiring on permanent contract. This use seems however limited. In 1992, the hazard rates from non employment to a fixed-term contract or an open-end contract decrease quickly until the 9th month of unemployment. Being unemployed or being out of the labor force could constitute a "dead end". The transition intensities from open-

end job to other states are very weak (the order of magnitude is five times smaller than for transitions from other states). Let us emphasize that for the sake of simplicity we do not model the transition from one open-ended job to another, so that the counterfactual is either remaining in the same job or moving directly from an open-ended contract to another one.

In order to take into account of more complex dependency in the past trajectory, we also introduce some terms measuring the fact of having worked in FTC or in an open-ended job in the past. The interpretation is complex. In 1992, the fact of having been on FTC instead of not employed before decreases the exit rate to permanent job but also to non employment, while it increases the exit rate from FTC to another FTC. Similar results are found for the 2001 entry cohort. By contrast, still compared to the benchmark situation being out of employment, having already occupied a permanent job accelerates the transition from FTC to permanent job and slower transitions to non employment. This higher risk of getting back to permanent employment when the worker was previously on such contract rather than not employed is consistent across all entry cohorts. Having been on permanent contracts rather than on fixed term contract before exiting employment decreases the transition rate from unemployment to permanent job but increases those to FTC. These effects are also found for the 2001 entry cohort, but the opposite is observed for the 98 entry cohort. These results suggest that the trajectory durably depends on past labour market states, and that there is a certain duality on the French labour market. Of course, one need to look at results where unobserved heterogeneity is controlled for before making a conclusion, as these patterns may be due to selection effects.

The 1992 generation graduate just before a sharp drop in the economic situation. Comparison of the labor market trajectories with generations entered in different situation yields interesting results. The duration dependency profile of transition from FTC to open-ended job for generations that graduate during the economic recovery of 1998 is neatly higher than in 1992 and also 2001 (see Figures 4). The risk of losing a FTC for unemployment is the highest during the first months, but decreases much quickly in 1998 than in 2001. The probability of getting one job from unemployment decreases much slowly for the 1998 generation.

Table 4: Effect of individual characteristics on jk -specific hazard rates (Male - 92 entry cohort)

	P to FTC	P to NE	FTC to P	FTC to FTC	FTC to NE	NE to P	NE to FTC
first spell	-0,181 ***	0,434 ***	-0,309 ***	-0,217 ***	0,181 ***	-0,928 **	-0,034
	0,079	0,043	0,047	0,033	0,020	0,505	0,355
previously on temporary contract * not the first spell	0,227 ***	-0,172 ***	-0,160 ***	0,218 ***	-0,362 ***		
	0,088	0,063	0,054	0,035	0,027		
previously on permanent contract * not the first spell			0,384 ***	-0,096	-0,619 ***	0,000	0,000
	0,000	0,000	0,086	0,078	0,065	-0,872 ***	0,567 ***
age at the beginning of the spell	-0,071 ***	-0,095 ***	-0,006	-0,033 ***	-0,027 ***	0,033	0,034
	0,022	0,012	0,012	0,009	0,006	-0,003	0,005
non French	0,007	0,131	-0,116	-0,185 ***	0,018	0,009	0,007
	0,196	0,103	0,121	0,088	0,050	-0,275 ***	-0,099 **
level of education						0,096	0,060
2	-0,117	-0,114	0,394 ***	0,093 ***	-0,027	0,478 ***	0,112 ***
	0,095	0,054	0,065	0,038	0,024	0,049	0,028
3	-0,220 **	-0,145 ***	0,669 ***	0,097 ***	0,024	0,588 ***	0,004
	0,125	0,073	0,076	0,050	0,032	0,059	0,037
4	-0,505 ***	-0,254 ***	0,831 ***	0,059	-0,023	0,849 ***	0,003
	0,143	0,080	0,083	0,058	0,037	0,064	0,042
baseline hazard							
[0-1]	-3,905 ***	-2,552 ***	-5,157 ***	-3,028 ***	-2,187 ***	-3,336 ***	-3,082 ***
	0,440	0,245	0,236	0,177	0,111	0,187	0,135
[1-3]	-3,632 ***	-2,319 ***	-4,676 ***	-2,745 ***	-1,899 ***	-3,403 ***	-3,300 ***
	0,423	0,236	0,229	0,174	0,109	0,185	0,135
[3-6]	-3,438 ***	-2,333 ***	-4,740 ***	-3,054 ***	-2,192 ***	-3,940 ***	-3,673 ***
	0,419	0,234	0,229	0,175	0,110	0,186	0,135
[6-9]	-4,078 ***	-2,561 ***	-5,027 ***	-3,549 ***	-2,541 ***	-4,021 ***	-4,021 ***
	0,426	0,236	0,233	0,178	0,111	0,188	0,137
[9-12]	-4,126 ***	-2,421 ***	-4,984 ***	-3,514 ***	-2,858 ***	-2,404 ***	-2,865 ***
	0,429	0,235	0,235	0,180	0,114	0,183	0,134
[12-18]	-4,102 ***	-2,871 ***	-5,026 ***	-3,848 ***	-3,068 ***	-3,245 ***	-3,347 ***
	0,422	0,235	0,232	0,179	0,113	0,187	0,136
[18-24]	-4,340 ***	-2,996 ***	-5,277 ***	-4,150 ***	-3,530 ***	-3,429 ***	-3,468 ***
	0,427	0,237	0,237	0,185	0,118	0,194	0,139
[24-48]	-4,822 ***	-3,430 ***	-5,503 ***	-4,477 ***	-3,987 ***	-3,469 ***	-3,652 ***
	0,424	0,235	0,234	0,182	0,116	0,193	0,140
[48-60]	-4,910 ***	-3,989 ***	-5,764 ***	-5,298 ***	-4,919 ***	-3,795 ***	-4,413 ***
	0,471	0,266	0,287	0,273	0,186	0,420	0,329

All spells (N= for $j = P$; N= for $j = FTC$; N= for $j = NE$), no unobserved heterogeneity, estimation separately by state of origin.

Table 5: Effect of individual characteristics on j - k -specific hazard rates (Male - 98 entry cohort)

	P to FTC	P to NE	FTC to P	FTC to FTC	FTC to NE	NE to P	NE to FTC
first spell	-0,118	-0,329	-0,074	0,117	0,095	-0,082	-0,267
	0,078	0,068	0,037	0,035	0,030	0,042	0,023
previously on temporary contract * not the first spell	-0,160	-0,746	0,074	0,264	-0,370		
	0,063	0,060	0,033	0,030	0,030		
previously on permanent contract * not the first spell			0,352	-0,177	-0,691	0,895	-0,226
			0,052	0,064	0,066	0,053	0,042
level of education							
2	-0,201	-0,343	0,335	0,048	-0,162	0,567	0,250
	0,069	0,067	0,037	0,031	0,029	0,057	0,027
3	-0,344	-0,246	0,649	-0,028	-0,013	1,085	0,200
	0,095	0,086	0,048	0,046	0,040	0,066	0,036
4	-1,380	-0,331	0,663	-0,312	-0,350	1,774	-0,224
	0,194	0,124	0,084	0,098	0,083	0,083	0,067
age at the beginning of the spell	-0,111	-0,109	-0,027	-0,030	-0,005	-0,039	-0,049
	0,013	0,012	0,006	0,006	0,005	0,008	0,005
non French	0,071	0,380	-0,171	-0,089	-0,029	-0,073	-0,065
	0,154	0,122	0,077	0,068	0,060	0,100	0,054
baseline hazard							
[0-1]	-2,968	-2,103	-3,748	-2,989	-2,789	-3,354	-1,178
	0,343	0,291	0,140	0,135	0,121	0,188	0,109
[1-3]	-2,374	-1,817	-3,252	-2,574	-2,558	-3,218	-1,010
	0,303	0,271	0,134	0,132	0,118	0,186	0,108
[3-6]	-2,279	-1,773	-3,258	-2,819	-2,807	-3,884	-1,554
	0,297	0,267	0,134	0,132	0,119	0,189	0,109
[6-9]	-2,344	-1,997	-3,507	-3,064	-3,128	-3,902	-1,889
	0,298	0,270	0,137	0,134	0,121	0,190	0,112
[9-12]	-2,223	-1,790	-3,227	-3,138	-3,350	-3,042	-1,139
	0,297	0,268	0,136	0,136	0,124	0,188	0,110
[12-18]	-2,343	-1,970	-3,434	-3,300	-3,612	-3,302	-1,419
	0,292	0,264	0,135	0,134	0,123	0,190	0,111
[18-24]	-2,529	-2,439	-3,622	-3,442	-3,820	-3,587	-1,758
	0,294	0,269	0,139	0,138	0,128	0,202	0,118
[24-48]	-2,731	-2,580	-3,702	-3,263	-4,122	-4,004	-2,020
	0,286	0,260	0,137	0,134	0,128	0,207	0,118
[48-60]	-3,203	-2,822	-4,134	-4,131	-4,869	-5,444	-2,616
	0,327	0,294	0,216	0,238	0,269	0,605	0,220

All spells (N=10210 for $j = P$; N=21400 for $j = FTC$; N=13661 for $j = NE$).
 No unobserved heterogeneity, estimation separately by state of origin

Table 6: Effect of individual characteristics on j - k -specific hazard rates (Male - 2001 entry cohort)

	P to FTC	P to FTC	FTC to P	FTC to FTC	FTC to NE	NE to P	NE to FTC
first spell	-0,184 **	0,418 ***	0,336 ***	0,336 ***	-0,438 ***	0,025	0,655 ***
previously on temporary contract * not the first spell	0,079	0,043	0,055	0,052	0,045	0,070	0,067
previously on permanent contract * not the first spell	0,227 ***	-0,175 **	0,258 ***	0,213 ***	-0,492 ***		
age at the beginning of the spell	0,088	0,063	0,061	0,058	0,051		
non French	-0,071 ***	-0,096 ***	0,718 ***	-0,141	-0,675 ***	-0,389 ***	0,739 ***
Level of education							
2	0,022	0,012	0,093	0,124	0,113	0,075	0,066
3	0,007	0,127	-0,037 ***	-0,078 ***	-0,046 ***	-0,009	-0,030 ***
4	0,196	0,103	0,009	0,010	0,009	0,010	0,008
Baseline hazard							
[0-1]	-0,117	-0,114 **	0,516 ***	0,086	-0,223 ***	0,545 ***	0,430 ***
[1-3]	0,095	0,054	0,096	0,081	0,066	0,117	0,062
[3-6]	-0,220 *	-0,142 **	0,443 ***	0,268 ***	-0,233 ***	0,398 ***	0,365 ***
[6-9]	0,125	0,073	0,094	0,077	0,064	0,115	0,062
[9-12]	-0,504 ***	-0,247 ***	0,769 ***	0,327 ***	-0,155 **	1,166 ***	0,270 ***
[12-18]	0,143	0,080	0,104	0,093	0,079	0,117	0,076
[18-24]	-3,901 ***	-2,525 ***	-4,033 ***	-2,358 ***	-1,755 ***	-3,410 ***	-2,459 ***
[24-48]	0,440	0,245	0,201	0,202	0,173	0,219	0,170
	-3,627 ***	-2,291 ***	-3,293 ***	-1,774 ***	-1,516 ***	-3,062 ***	-2,248 ***
	0,423	0,235	0,189	0,194	0,169	0,215	0,168
	-3,434 ***	-2,306 ***	-3,567 ***	-2,179 ***	-1,830 ***	-3,663 ***	-2,649 ***
	0,419	0,233	0,192	0,197	0,171	0,220	0,171
	-4,074 ***	-2,533 ***	-3,700 ***	-2,352 ***	-1,996 ***	-3,943 ***	-2,936 ***
	0,426	0,235	0,197	0,202	0,176	0,229	0,176
	-4,122 ***	-2,394 ***	-3,564 ***	-2,445 ***	-2,098 ***	-3,956 ***	-2,932 ***
	0,428	0,235	0,198	0,206	0,180	0,237	0,181
	-4,098 ***	-2,843 ***	-3,679 ***	-2,789 ***	-2,254 ***	-4,238 ***	-3,157 ***
	0,422	0,234	0,197	0,207	0,178	0,237	0,180
	-4,336 ***	-2,968 ***	-3,600 ***	-2,643 ***	-2,218 ***	-4,652 ***	-3,758 ***
	0,426	0,236	0,202	0,212	0,184	0,283	0,215
	-4,830 ***	-3,482 ***	-3,626 ***	-2,744 ***	-2,070 ***	-5,243 ***	-3,985 ***
	0,423	0,235	0,211	0,225	0,192	0,347	0,235

All spells (N= for $j = P$; N= for $j = FTC$; N= for $j = NE$).
no unobserved heterogeneity, estimation separately by state of origin.

Table 7: Effect of individual characteristics on j - k -specific hazard rates (Women - 92 entry cohort)

	P to FTC	P to NE	FTC to P	FTC to FTC	FTC to NE	NE to P	NE to FTC
first spell	-0,215 ***	-0,255 ***	0,179 ***	0,006	-0,202 ***	-0,482	-0,081
	0,090	0,047	0,059	0,038	0,021	0,451	0,356
previously on temporary contract * not the first spell	0,052	-0,418 ***	0,289 ***	0,401 ***	-0,412 ***		
	0,109	0,066	0,069	0,041	0,028		
previously on permanent contract * not the first spell			0,591 ***	-0,058	-0,511 ***	-0,630 ***	0,642 ***
			0,117	0,097	0,063	0,043	0,037
age at the beginning of the spell	-0,028	-0,051 ***	-0,036 ***	-0,021 ***	-0,014 ***	-0,034 ***	-0,027 ***
	0,024	0,013	0,014	0,010	0,006	0,011	0,007
non French	-0,137	0,339 ***	-0,129	0,017	0,014	-0,073	-0,204 ***
	0,247	0,106	0,160	0,095	0,056	0,112	0,068
level of education							
2	-0,182	-0,301 ***	0,280 ***	0,116 ***	-0,119 ***	0,419 ***	0,244 ***
	0,120	0,065	0,090	0,050	0,027	0,066	0,033
3	-0,375 ***	-0,357 ***	0,558 ***	0,181 ***	-0,117 ***	0,529 ***	0,363 ***
	0,144	0,077	0,098	0,058	0,032	0,075	0,039
4	-0,742 ***	-0,572 ***	0,844 ***	0,200 ***	-0,265 ***	1,202 ***	0,418 ***
	0,158	0,083	0,104	0,064	0,038	0,079	0,046
baseline hazard							
[0-1]	-4,598 ***	-2,881 ***	-5,106 ***	-3,458 ***	-2,102 ***	-2,996 ***	-2,707 ***
	0,499	0,265	0,288	0,187	0,114	0,221	0,138
[1-3]	-4,192 ***	-2,654 ***	-4,368 ***	-3,275 ***	-1,872 ***	-2,826 ***	-2,657 ***
	0,474	0,253	0,277	0,184	0,112	0,218	0,137
[3-6]	-4,287 ***	-2,782 ***	-4,657 ***	-3,651 ***	-2,264 ***	-3,287 ***	-2,821 ***
	0,471	0,251	0,279	0,185	0,113	0,220	0,137
[6-9]	-4,284 ***	-2,959 ***	-5,017 ***	-4,074 ***	-2,685 ***	-3,539 ***	-3,067 ***
	0,472	0,254	0,284	0,189	0,115	0,224	0,139
[9-12]	-4,515 ***	-2,346 ***	-4,982 ***	-3,965 ***	-2,443 ***	-3,289 ***	-3,124 ***
	0,477	0,250	0,286	0,189	0,115	0,224	0,140
[12-18]	-4,953 ***	-3,025 ***	-4,992 ***	-4,166 ***	-2,548 ***	-3,607 ***	-3,365 ***
	0,476	0,251	0,283	0,189	0,114	0,225	0,140
[18-24]	-4,912 ***	-3,202 ***	-5,434 ***	-4,680 ***	-3,332 ***	-3,967 ***	-3,596 ***
	0,478	0,254	0,292	0,197	0,120	0,237	0,145
[24-48]	-5,290 ***	-3,445 ***	-5,583 ***	-5,216 ***	-3,690 ***	-4,046 ***	-3,991 ***
	0,472	0,249	0,285	0,195	0,118	0,231	0,145
[48-60]	-6,701 ***	-3,898 ***	-6,268 ***	-5,934 ***	-4,370 ***	-4,920 ***	-4,936 ***
	0,575	0,269	0,338	0,258	0,152	0,498	0,309

All spells (N= for $j = P$; N= for $j = FTC$; N= for $j = NE$).
No unobserved heterogeneity.

Table 8: Effect of individual characteristics on jk -specific hazard rates (Women - 98 entry cohort)

	P to FTC	P to NE	FTC to P	FTC to FTC	FTC to NE	NE to P	NE to FTC
first spell	0,101	-0,536 ***	0,200 ***	0,177 ***	-0,094 ***	-0,233 ***	0,386 ***
previously on temporary contract * not the first spell	0,077	0,071	0,036	0,035	0,030	0,053	0,035
previously on permanent contract * not the first spell	-0,301 ***	-0,919 ***	0,168 ***	0,193 ***	-0,392 ***	-0,205 ***	0,775 ***
	0,066	0,058	0,034	0,031	0,028	0,052	0,033
			0,459 ***	-0,113 *	-0,698 ***		
			0,054	0,065	0,065		
level of education							
2	0,186	-0,159 ***	0,222 ***	0,173 ***	-0,172 ***	0,500 ***	0,424 ***
3	0,086	0,072	0,045	0,036	0,029	0,059	0,026
4	0,060	-0,412 ***	0,676 ***	0,174 ***	-0,473 ***	1,448 ***	0,765 ***
	0,095	0,081	0,047	0,042	0,036	0,064	0,033
	-0,270 *	-0,280 ***	0,652 ***	-0,102 ***	-0,454 ***	1,779 ***	0,493 ***
age at the beginning of the spell	0,166	0,125	0,079	0,088	0,070	0,092	0,060
	-0,157 ***	-0,121 ***	-0,019 ***	-0,050 ***	-0,009 *	-0,062 ***	-0,060 ***
	0,014	0,012	0,006	0,006	0,005	0,008	0,005
non French	-0,210	0,287 ***	-0,023	-0,003	0,102 *	-0,133 ***	-0,126 ***
	0,192	0,128	0,089	0,078	0,060	0,107	0,052
baseline hazard							
[0-1]	-1,570 ***	-1,703 ***	-4,148 ***	-2,376 ***	-2,357 ***	-2,737 ***	-1,668 ***
	0,339	0,295	0,143	0,136	0,114	0,193	0,106
[1-3]	-1,371 ***	-1,454 ***	-3,747 ***	-2,125 ***	-2,209 ***	-2,293 ***	-1,482 ***
	0,318	0,273	0,138	0,134	0,112	0,190	0,105
[3-6]	-1,444 ***	-1,461 ***	-3,697 ***	-2,482 ***	-2,511 ***	-2,981 ***	-1,839 ***
	0,314	0,268	0,137	0,135	0,113	0,193	0,106
[6-9]	-1,642 ***	-1,427 ***	-4,001 ***	-2,750 ***	-2,820 ***	-3,191 ***	-2,188 ***
	0,318	0,269	0,140	0,137	0,115	0,199	0,109
[9-12]	-1,381 ***	-0,796 ***	-3,583 ***	-2,864 ***	-2,888 ***	-3,276 ***	-2,232 ***
	0,315	0,263	0,139	0,139	0,116	0,204	0,111
[12-18]	-1,552 ***	-1,546 ***	-3,806 ***	-3,141 ***	-3,214 ***	-3,502 ***	-2,460 ***
	0,310	0,264	0,138	0,138	0,116	0,203	0,110
[18-24]	-1,597 ***	-1,592 ***	-3,742 ***	-3,270 ***	-3,364 ***	-3,681 ***	-2,707 ***
	0,311	0,266	0,140	0,143	0,121	0,215	0,116
[24-48]	-1,802 ***	-1,975 ***	-3,976 ***	-3,530 ***	-3,903 ***	-3,766 ***	-2,957 ***
	0,304	0,260	0,138	0,140	0,121	0,205	0,112
[48-60]	-2,438 ***	-2,600 ***	-4,035 ***	-3,976 ***	-4,683 ***	-4,018 ***	-3,161 ***
	0,350	0,314	0,183	0,239	0,267	0,303	0,160

All spells (N= for $j = P$; N= for $j = FTC$; N= for $j = NE$).
No unobserved heterogeneity.

Table 9: Effect of individual characteristics on jk -specific hazard rates (Women - 2001 entry cohort)

	P to FTC	P to NE	FTC to P	FTC to FTC	FTC to NE	NE to P	NE to FTC
first spell	0,219 **	-0,771 ***	0,346 ***	0,180 ***	-0,471 ***	0,509 ***	0,024
	0,120	0,088	0,049	0,050	0,044	0,059	0,036
previously on temporary contract * not the first spell	0,940 ***	-0,202 ***	0,140 ***	0,121 ***	-0,387 ***		
	0,126	0,102	0,057	0,054	0,048		
previously on permanent contract * not the first spell			0,412 ***	-0,012 ***	-0,506 ***	1,017 ***	-0,454 ***
	-0,103	-0,062 ***	0,100	0,112	0,107	0,074	0,072
age at the beginning of the spell	0,021	0,015	-0,030 ***	-0,060 ***	-0,043 ***	-0,038 ***	-0,057 ***
	0,018	0,333 **	0,008	0,009	0,008	0,010	0,007
non French	0,284	0,181	-0,135	-0,158	0,336 ***	-0,142	-0,101
			0,120	0,128	0,088	0,129	0,085
Level of education							
2	-0,475 ***	-0,707 ***	0,480 ***	0,238 ***	-0,748 ***	0,488 ***	0,384 ***
	0,238	0,187	0,140	0,115	0,082	0,150	0,076
3	-0,311	-0,379 ***	0,314 ***	0,292 ***	-0,287 ***	0,544 ***	0,540 ***
	0,232	0,174	0,141	0,113	0,074	0,140	0,071
4	-0,729 ***	-0,837 ***	0,750 ***	0,326 ***	-0,509 ***	1,505 ***	0,810 ***
	0,235	0,175	0,139	0,116	0,080	0,138	0,076
Baseline hazard							
[0-1]	-3,046 ***	-2,545 ***	-4,221 ***	-2,490 ***	-1,512 ***	-3,593 ***	-1,387 ***
	0,497	0,365	0,210	0,199	0,165	0,220	0,143
[1-3]	-2,207 ***	-2,207 ***	-3,511 ***	-2,049 ***	-1,305 ***	-3,176 ***	-1,261 ***
	0,443	0,335	0,199	0,195	0,161	0,217	0,142
[3-6]	-2,439 ***	-2,410 ***	-3,688 ***	-2,589 ***	-1,685 ***	-4,013 ***	-1,667 ***
	0,443	0,334	0,201	0,198	0,164	0,224	0,145
[6-9]	-2,608 ***	-2,683 ***	-3,802 ***	-2,819 ***	-1,827 ***	-4,239 ***	-1,949 ***
	0,448	0,341	0,204	0,202	0,168	0,235	0,150
[9-12]	-2,588 ***	-1,441 ***	-3,516 ***	-2,806 ***	-1,863 ***	-4,326 ***	-2,150 ***
	0,450	0,326	0,205	0,206	0,171	0,247	0,158
[12-18]	-2,615 ***	-2,418 ***	-3,637 ***	-3,219 ***	-2,151 ***	-4,612 ***	-2,295 ***
	0,443	0,332	0,204	0,208	0,172	0,250	0,157
[18-24]	-2,707 ***	-2,694 ***	-3,487 ***	-3,433 ***	-2,215 ***	-5,346 ***	-2,759 ***
	0,450	0,342	0,207	0,221	0,181	0,325	0,185
[24-48]	-3,325 ***	-2,720 ***	-3,547 ***	-3,181 ***	-2,221 ***	-5,222 ***	-3,480 ***
	0,471	0,347	0,214	0,227	0,194	0,321	0,226
[48-60]	-16,776 ***	-15,561 ***					
	0,000	0,000					

All spells (N= for $j = P$; N= for $j = FTC$; N= for $j = NE$).
No unobserved heterogeneity.

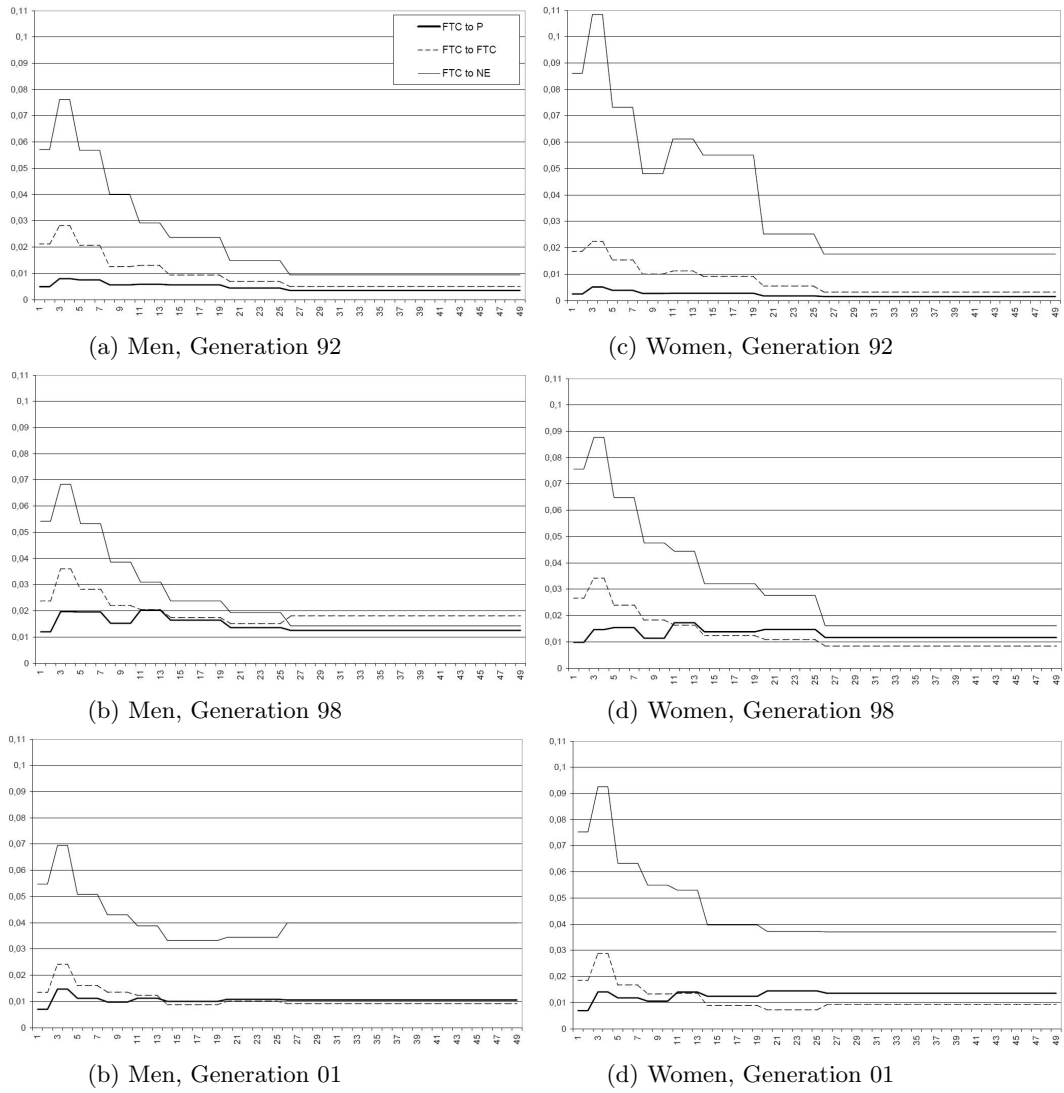


Figure 4: Duration dependency from Fixed-Term Contract (by gender and generation of graduates)

6 Conclusion

In this paper we use repeated waves of a French survey on entry cohorts to provide new empirical evidence on the impact of economic conditions prevailing at time of graduation on workers' job mobilities and unemployment occurrence and durations. We focus our analysis on the use and effects of fixed-term contracts. More precisely, we investigate the extent to which the existence and importance of the so-called "stepping-stone effect" varies depending on prevailing economic entry conditions. To do so, we compare the trajectories of workers entered on the labour market respectively during recessions, recovery and good times. We also model the transitions processes and analyze the determinants of mobilities in early career. Preliminary results show that each of the three cohorts that we consider have very different trajectories on the labour market during their first three years of activity and that individual characteristics and previous events experienced on the labour markets are not similarly valued depending on the economic situation.

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Appendix

Table 10: Detailed level of education by entry cohort (in %)

	1992	1998	2001
no qualifications	3.79	2.99	0.49
unfinished CAP/BEP	15.35	11.88	6.57
graduate CAP/BEP	24.37	15.98	11.65
general bac - no graduation	2.25	0.37	0.40
technical bac - no graduation	4.84	3.12	2.47
technical bac - graduated	11.28	12.79	8.90
general bac - graduated	0.91	0.48	0.49
2 years of general college education - no graduation	2.79	6.25	8.04
2 years of technical college education - no graduation	1.07	5.15	3.01
2 years of general college education - graduated	1.50	2.38	2.65
2 years of technical college education - graduated	14.68	20.17	22.79
3 to 5 years of general college education	13.50	12.92	26.01
business school	0.98	0.89	1.19
ingenereing school	2.28	1.94	2.19
preparation for teaching	0.42	2.67	3.15
total	100	100	100

Table 11: Mobilities within first 3 years on the labour market (in %)

	entry cohort		
	1992	1998	2001
number of spells			
1	6.56	17.56	24.88
2	32.08	0	30.01
3	16.41	28.80	19.55
4	20.26	22.39	11.09
5 or more	26.69	31.25	14.48
number of non employment spells			
0	0.07	32.44	46.85
1	45.70	42.73	32.72
2	37.68	16.63	14.04
3 or more	16.55	8.21	6.66
number of jobs			
0	6.57	4.58	2.93
1	40.79	33.88	39.48
2	29.06	34.07	33.38
3 or more	23.56	27.47	24.21
number of permanent contracts*			
0	49.33	34.29	31.05
1	44.65	59.36	62.17
2 or more	6.03	6.35	6.78
number of fixed-term contracts*			
0	25.05	22.91	29.92
1	36.48	40.08	38.04
2	21.90	22.11	19.39
3 or more	16.57	14.91	12.64

*: among those who got at least a job.