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### **Winners and losers: young graduates facing flexibility in the knowledge society.**

The "Knowledge Economy" indicates a complex situation whereby knowledge increasingly shapes all spheres of life and becomes the most important factor affecting economic growth. As EU countries and the rest of the world progressively move towards a knowledge society, globalisation, competition and segmented markets appear as specific features of the knowledge economy. At the same time, two major processes have transform work and employment relations. The first is the massive diffusion of new technologies for information and communication (NTIC) in the work place. The second is the globalisation of the economy. The ongoing production of new knowledge and its introduction in companies through technical and organisational innovations expand the creation of new occupations, and the establishment of new professions, especially in the field of knowledge-driven services. In order to adapt to a changing, more complex and often highly uncertain environment, economic and non economic organisations have to make a flexible use of their resources, especially of human resources.

In relation to the issue of transition for higher education graduates, this type of flexibility has major consequences. On the one hand, it was observed that fewer graduates could expect to experience a smooth and rapid transition from higher education to "regular" or "standard" employment with full-time and unlimited-term contract. As a consequence part-times jobs, temporary work, flexible working-time and self-employment are on the rise. On the other hand, the growing importance of flexibility was also seen as an expanded set of graduates' opportunities. According to this view, graduates are not just victims of a changing set of circumstances, but take advantage of the new situation by developing a willingness to deal with changes in a positive way, to see changes as windows of opportunity rather than as threats, and to be constantly open to new job opportunities. We propose in the paper to discuss these two faces of flexibility.

The present contribution will use the Reflex (Flexible Professional in the Knowledge Society, 2000) and the Cheers (Careers After Higher Education: A European Research Survey, 2005) datasets to analyse how young European graduates deal with flexibility and experience this phenomenon in their early careers. According to the Reflex Survey, half of employed graduates had a fixed term or temporary contract at first job and this is still the case for 20 % of the graduates 5 years after graduation. During the first five years, 62 % of the graduates have changed job and 36 % of them have changed employment contract. Almost 40 % of them tell that they had a major change of working task at their work place during this time period.

Obviously, there are differences between countries and major questions are a stake. Firstly, has flexibility in the higher education graduate job market effectively risen over the last decade? A rapid description of the evolution of employment contracts and job positions for young people who left Higher Education in 2000 and in 2005 will provide some insights. The

analysis will distinguish between external and functional flexibility and identify young graduates according to individual and education characteristics. Secondly, do young graduates really take advantage from being mobile? An analysis of the employment conditions in terms of wages, working time, level of autonomy will be undertaken to find out the winners versus losers of flexibility on the graduate labour market. Finally, the analysis will attempt to point out competences that enable young people to cope with flexibility in a successful way.

This paper looks determinants of success or failure in the labour market. The determinants of success or failure are the mobility of young graduate in their first experience of working life.

Most of the countries are now characterised by the knowledge society. The term knowledge society appears in the late 1990, it means a complex situation whereby knowledge increasingly shapes all spheres of life and becomes the most important factor affecting economic growth (Foray 2004). The term knowledge society has been coined to indicate a situation in which the characteristics of work organisations across the board change under influence of the increasing importance of knowledge (Paul 2007). The knowledge society rhetoric is saying that the expanding human capital serves both societies, firms and individuals as a direct route to economic growth, since people are living and working in the conditions of more knowledge-intensive production in the so-called information society (Kivinen, Ahola 1999). With the knowledge society and as Drucker explained, a new worker appeared and differs fundamentally from others according to different characteristics. The knowledge worker gains access to work, job and social position through education. In this context graduates are expected to fulfil key positions in the knowledge society. However it is now well accepted that technological development and the globalisation of economies have permanently changed the character of both work and employment in OECD countries (Carnoy 1997). As a consequence, employment has become on average less stable and less certain than in the past, a concept a guarantees "job for life" cannot be considered as the norm of work. Firms use flexibility as a response to technical change and innovation. As a result of flexibility, young graduates are more and more exposed to changes than in the past.

In order to adapt to a changing, more complex and often highly uncertain environment, resorting to flexibility – that is to the rapid readjustment of productive factors or resources in order to seize opportunities provided by technological innovation and increasingly segmented and unstable markets [Trigilia, 2002] – is a way out. Organisations – both economic and non economic – can deal with a rapidly changing environment making a flexible use of their resources, especially of human resources.

The globalization of the world economy and the introduction of new technologies have meant profound changes in the organization of work. As Caroli explains that the choice of firms, in terms of flexibility is closely related to their nature and their knowledge. Firms are continually facing changes in their environment, particularly when new technological opportunities appear. They need to adjust their factors of production. The factors of production Labour can be adjusted by his quantity but also his quality. The choice between the two options is affected by the price of the adjustment. In these conditions, firms can choose between external flexibility, based on firing less educated workers and hiring more educated workers able to respond to new technologies and also more graduated, and internal flexibility based on workers training to new methods of production. In one case firm's turnover will be high in the other case it will be low. The choice between the 2 types of flexibility is driven by the rhythm of technological innovation. When the rhythm of technological innovation is particularly intensive, external flexibility is fostered by the firms.

From the employers' side, the flexible use of human resources (or labour forces) entails different possibilities: 1) to adjust the volume and the composition of the labour force to environmental changes; 2) to shift workers from one job to another within the existing organisations and to change the content of job tasks; 3) to reward labour differently according to real or supposed differences in labour productivity, and to the business cycle. These possibilities refer to three different dimensions of flexibility: external (or numeric) flexibility; internal (or functional) flexibility; and wage flexibility.

External flexibility implies the transformation of both employment relations and self-employment. On the one hand, normative and contractual constraints regulating hiring and firing are modified and non standard employment relations (i. e. different from full-time and permanent employment within a single organisation) increase. The need to readjust the volume and the composition of the labour force may imply the shift from employment to unemployment, the shift from one employer (and thereby sometimes one occupation and/or economic sector) to another, a higher resort to part-time or fixed-term contracts, geographical mobility of workers, workers having two or more jobs at the same time.

Functional flexibility refers to the drive to flexibility within single organisations entailing changes in the workplace. It relies on two different sets of conditions. First, "negative" conditions, that is the absence of constraints to shift workers from one job to another and to change the content of job tasks. Second, "positive" conditions that is workers possessing multiple competences and skills, workers' willingness to upgrade their skills, and to participate in re-training processes or activities, and to adapt to frequent changes in work conditions. Among positive conditions, knowledge and competences possessed or acquired by workers and their value orientations play a major role.

Functional flexibility is considered extremely important because it relates to individuals – and, especially, to graduates – at all stages of their working life. As a consequence, graduates need to develop the ability to cope with changes, to take up challenges not directly related to their own field of expertise, and to quickly acquire new knowledge and new skills [Reflex Project Conceptual Framework; Schmid, 2000].

The changing nature of work has resulted in major transition in the shape of careers and their management within and outside organisations. As the labour market becomes more dynamics young graduates are more exposed to changes. It appears that careers were predictable, secure and linear. In contrast, now the organisational change gives rise to unpredictable, insecure careers due to changes. This situation has an impact on school to work transition of young graduates. There are many indications that a growing number of graduates cannot expect anymore to transfer within a short period of time from higher education towards "regular" full-time indeterminate employment. More and more graduates are expected to become petit entrepreneurs finding multiple niches where they can sell their competences on part time, short-term, multiples contract, semi-entrepreneurial basis (Teichler 1999). In this context of atypical employment relationships and in conditions of uncertainty, the concept of the entrepreneurial worker may be a fruitful one (Kivinen, Ahola 1999). As a large literature explains that the entrepreneurial workers represents individuals who seek to create or find their own employment opportunities and are speculatively alert to opportunities for his or her capital human. As a consequence, it becomes necessary for the individuals to constantly monitor work opportunities. This situation can be considered as a loss of job security and a weakening of the employees' bargaining position or a rise of job opportunities.

In this paper we would like to know how graduates face changes in their first years after graduation. We want to know if they change of employers or change in their work tasks frequently. We would like to know if graduates take advantages of mobility in terms of wages and satisfaction.

Young graduate flexibility: evolution among Europe.

In this paper we use data on transition from higher education to work collected by the Cheers (Careers after Higher Education: a European Research Study) and the Reflex project. These two projects are large scale project that have been carried simultaneously in Europe in 2000 and 2005. Each survey was conducted on a sample of about 40 000 persons who had graduated 5 years before. The Cheers project has been conducted in 2000 on people who have been graduated in 1995 in Austria, Finland, France, Germany, Italy, the Netherlands, Spain, Sweden, United Kingdom, Norway, The Czech Republic and Japan. The Reflex project has been conducted in 2005 on people who have been graduated in 2000 in Austria, Finland, France, Germany, Italy, The Netherlands, Spain, Sweden, United Kingdom, Norway, The Czech Republic, Estonia, Switzerland and Belgium. In these two surveys only people graduated from higher education are surveyed. The Cheers and the Reflex project admit us to make different comparisons among topics such as flexibility.

The evolution flexibility Europe has been studied in many publications. The OECD had provided several analyses on the transition from education to work for young graduates.

Table 1 : Trends in unemployment, temporary and part-time work.

	AT	BE	CH	CZ	DE	ES	FI	FR	IT	NL	NO	UK
Unemployment rate	6%	9%	4%	7%	8%	8%	8%	9%	7%	5%	4%	6%
15-24unemployment rates 2006	10%	19%	8%	18%	14%	18%	19%	24%	22%	8%	9%	14%
15-24unemployment rates 2000	6%	15%	5%	17%	8%	26%	22%	21%	32%	5%	10%	12%
15-24 Long terms unemployment 2006	16%	32%	0%	38%	37%	18%	6%	27%	51%	21%	9%	15%
15-24 Part Time 2006	12%	19%	19%	3%	18%	20%	32%	17%	15%	60%	49%	35%
15-24 Part Time 2000	6%	18%	19%	2%	11%	13%	29%	19%	11%	53%	41%	32%
15-24 Temporary work 2006	35%	31%	52%	19%	57%	67%	44%	47%	40%	43%	29%	12%
15-24 Temporary work 2000	33%	31%	47%	20%	52%	69%	46%	55%	26%	35%	29%	13%

Source : OECD 2001 and OECD 2006

Table reports on youth unemployment rate. We see that a similar pattern emerges. Youth unemployment is very high in France, Italy and Belgium. We can see also that long term unemployment is very high on Belgium, Czech Republic, Germany and Italy. In all the countries the youth unemployment rate is higher than the general unemployment rate. These figures show us that youth transition from education (or not) to working life can be a major problem.

The table 1 provides us further important labour market indicators. The employment situation in a country, part time, temporary work is very different in each country. Some countries has exceptional situation, for example 60 % of the youth between 15 and 24 are in part time job in 2006, almost 50 % in Norway and 35 % in the United Kingdom. Most of the countries have experienced a rise in rate of part time job for the population considered. Temporary work is very high for young in Switzerland, Germany, and Spain higher than 50%, whereas it is very low in United Kingdom and Czech Republic. OECD 's data gives us some information on youth employment or unemployment but for our concern, Cheers and Reflex data provided

more information on how young graduates in Europe faced changes and experience transition from higher education to labour market.

In order to analyse graduate mobility, we consider several variables such as number of employers since graduation, number of unemployment spells, types of contract and self employment. Five years or six after graduation, most of the graduated have an unlimited contract, there is small difference between the two surveys. Temporary contract at first job hasn't increase between the two surveys instead for Spain, Italy, the Netherland and the Czech Republic. In the 2 surveys, 15 % of all the graduates had a temporary contract both in their first job and in their current work. In Cheers project, 51 % of employed graduates had a permanent contract both in first job and in current job; this figure decrease to 49% in the Reflex survey. In the two surveys, only 5 % of employed graduates experiences a change in opposite direction moving towards flexibility as they had a permanent contract in their first job and a temporary one at the time of the survey.

Table 2: Major mobility indicators

		ES	IT	FR	AT	DE	NL	UK	NO	FI	CZ	Total
Reflex	Fixed-term current work	37%	28%	15%	21%	24%	19%	16%	13%	23%	13%	21%
Cheers	Fixed-term current work	50%	29%	19%	30%	23%	21%	18%	17%	35%	16%	24%
Reflex	Fixed-term first work	83%	64%	49%	44%	49%	66%	34%	45%	54%	32%	53%
Cheers	Fixed-term first work	76%	62%	51%	56%	52%	50%	38%	50%	61%	29%	52%
Reflex	Self-employed (Current job)	9%	23%	9%	14%	13%	7%	5%	6%	7%	14%	11%
Cheers	Self-employed (Current job)	9%	19%	2%	8%	8%	5%	4%	2%	3%	9%	7%
Reflex	Self-employed (1st job)	6%	12%	5%	10%	8%	5%	3%	2%	3%	12%	8%
Cheers	Self-employed (1st job)	4%	10%	1%	10%	8%	4%	2%	1%	3%	4%	4%
Reflex	Self-employed (Current job)	9%	23%	9%	14%	13%	7%	5%	6%	7%	14%	11%
Cheers	Self-employed (Current job)	9%	19%	2%	8%	8%	5%	4%	2%	3%	9%	7%
Reflex	One employer since graduation	25%	39%	46%	35%	46%	37%	31%	35%	42%	55%	39%
Cheers	One employer since graduation	46%	52%	64%	55%	55%	31%	36%	32%	30%	63%	46%
Reflex	Two employers since graduation	24%	29%	26%	34%	31%	32%	30%	35%	29%	29%	30%
Cheers	Two employers since graduation	28%	27%	23%	30%	26%	21%	32%	34%	34%	23%	28%
Reflex	Three or more	50%	31%	28%	32%	23%	31%	39%	30%	29%	16%	31%
Cheers	Three or more	26%	21%	13%	15%	19%	48%	32%	34%	36%	14%	26%
Reflex	Never unemployed	69%	44%	66%	65%	66%	76%	69%	80%	67%	62%	66%
Cheers	Never unemployed	66%	92%	81%	92%	92%	87%	90%	87%	84%	91%	88%
Reflex	One unemployed spell	26%	18%	22%	24%	24%	18%	20%	15%	19%	30%	22%
Cheers	One unemployed spell	24%	8%	16%	7%	7%	10%	8%	11%	12%	8%	10%
Reflex	Two or more unemployment spell	31%	13%	13%	11%	10%	7%	10%	5%	13%	8%	12%
Cheers	Two or more unemployment spell	10%	0%	3%	1%	1%	3%	2%	2%	4%	1%	2%

Source: Reflex 2005, Cheers 2000

If the proportion of temporary contract hasn't change in Reflex and Cheers, it doesn't mean that graduate hasn't experience changes in their first years of working life. Employment mobility, in terms of changing employers has increased between 2000 and 2005. In 2000, 46 % of graduates report that they have only one employer since graduation in 2005 it is only 39%. This fact is the same in every country except for the Netherlands. Graduate employment mobility is highest in Spain, United Kingdom. As we can see, the proportion of temporary contract hasn't increased between the two surveys but the employment mobility has changed, being employed with an unlimited contract doesn't mean more job stability.

While European graduates are highly mobile through the labour market, unemployment is relatively rare as data on unemployment shows, but between the two surveys unemployment increases. In 2000, almost 90 % of the graduates never faced unemployment, 66% faced this situation in 2005. In 2000, only 2 % of the graduates had 2 or more unemployment spell, it is 12 % in 2005. Multiple unemployment spells are slightly more frequent than average in Italy, France and Finland. It must be noted that most of graduates who report at least one unemployment spell since graduation also report having searched for first job after graduation as least one month. This means that, as graduate very likely experienced unemployment before entering their first job, part of graduate unemployment cannot be considered as a consequence of external flexibility, but as a consequence of the more or less functioning of the labour market for fresh-graduates.

Table 3: functional mobility.

	UK	NE	EE	BE	AT	DE	IT	SP	CZ	NO	FIN	CH	FR
Internal Mobility	53%	49%	47%	43%	43%	41%	40%	38%	35%	35%	35%	34%	29%

Source: Reflex 2005.

Concerning functional mobility, 40 % of the graduates have experienced internal mobility. Only graduates from the Reflex survey have been questioned on this type of mobility. Graduates from UK are those who experienced the more internal flexibility, more than half of them are in this situation. Less than 30% in France has change of work task in their work place since they have started to work.

Winners and losers: external flexibility.

In order to analyse graduate's mobility, European graduates can be divided into 3 groups. Non mobile graduates: those who report having had only one employer, mobile graduates, those who declare having had 2 employers. Very mobile graduates are those who had 3 or more employers since they have been graduated. Spain and the United Kingdom show percentages of very mobile graduates consistently higher than average. At the same time, students graduating in humanities and arts, and in health and welfare, are much more mobile than others, while students graduating in engineering, manufacturing and construction are less very mobile than others. According to Cereq's survey, we can say that graduates mobility in an external way represent a lot of situation, graduates from Art and Humanities are those who have the more difficulties of finding job in the first years after graduation, the can be considered as involuntary mobile. As a contrary graduates from Health and Welfare can be considered as voluntary mobile.

Table 4: External mobility by field of study.

	Education	Humanities and Arts	Social Sciences, Business and laws	Science, Mathematics and computing	Engineering	Agriculture	Health and Welfare	Services
Non Mobile	42%	32%	36%	40%	45%	37%	35%	41%
Mobile	29%	27%	33%	32%	32%	32%	28%	30%
Very Mobile	28%	41%	31%	27%	23%	31%	37%	30%
At least one unemployment spell since graduation	31%	46%	38%	38%	32%	45%	26%	36%

Source : Reflex 2005.

As it has been said, one of the most relevant changes graduates experience during the first five or six years after graduation concerns employment mobility. Indeed, more than 60% of all graduates have had two or more employers since graduation.

Employment mobility may have an impact on two important aspects of graduates' condition some years after graduation: the level of the competences they possess, and the kind of working position they've reached. On the one side, having several employers can be conceived as a way – promoted or not by graduates – to enhance existing competences, to acquire new competences and new knowledge especially through learning-by-doing, practice, and the like. On the other side, these changes might also turn out to be a way of depleting or wasting competences. Furthermore, employment mobility can be considered as a means to achieve a satisfactory working position within five or six years from graduation profiting from ones' own competences or, on the contrary, as a sign of the difficulty to do so. Consequently, employment mobility within the labour market can lead to very different outcomes.

In order to assess the impact of employment mobility on graduates' condition some years after graduation, two steps of analysis are envisaged. First, the impact of “being mobile” on the level of the competences possessed at the time of the survey is investigated. Second, the impact of the of "being mobile"– is analysed. In doing so, we'd like to address a set of separate but related questions: Does employment mobility make a difference – either favouring or disadvantaging flexible graduates – as far as the level of competences possessed some years after graduation is concerned? Does it foster or hinder the same competences possessed by non flexible graduates? Do mobile graduates take advantage compared to non mobile graduates in terms of wages?

Table n 5 summarizes the results of a set of multiple linear regressions each having as dependent variable one of the nineteen competences investigated in the REFLEX survey, and as independent variable a dummy opposing flexible graduates to non flexible graduates, that is graduates who have had two or more employers since graduation to graduates who have had just one employer.

Table 5: The impact of employment on graduates competences (Standardized regression coefficients)

	Mobile Graduates	Very Mobile Graduates
mastery of your own field or discipline	<b>-0,027</b>	<b>-0,055</b>
knowledge of other fields or disciplines	0,021	<b>0,041</b>
analytical thinking	0,008	0,003
ability to rapidly acquire new knowledge	<b>0,028</b>	<b>0,030</b>
ability to negotiate effectively	0,008	<b>0,027</b>
ability to perform well under pressure	0,002	-0,011
alertness to new opportunities	<b>0,034</b>	<b>0,043</b>
ability to coordinate activities	0,019	0,015
ability to use time efficiently	0,004	0,000
ability to work productively with others	0,013	0,014
ability to mobilize the capacities of others	0,005	0,006
ability to make your meaning clear to others	0,008	0,013
ability to assert your authority	-0,007	-0,007
ability to use computers and the internet	0,004	0,017
ability to come up with new ideas and solutions	0,014	0,015
willingness to question your own and others' ideas	0,011	0,015
ability to present products, ideas or reports to an audience	<b>0,024</b>	<b>0,025</b>
ability to write reports, memos or documents	0,014	0,009
ability to write and speak in a foreign language	<b>0,038</b>	<b>0,061</b>

Source: Reflex 2005.

The effects of changing employers on the level of possessed competences are controlled by a set of factors that have or may have an impact both on the level of competence acquired at the time of the interview and on employment mobility. These factors are: gender, the country within which respondents graduated, graduates' type of education, the field of study of the degree earned in the reference year, the extent to which graduates' reference study programme has been a good basis for further learning on the job, having had a continuative work experience before graduation expressed in terms of continuing after graduation for more than six months the work already had during study, having had a period of formal or informal initial training, the number of months of employment since graduation, and graduates' occupational group.

The results show that among all graduates; being mobile, instead of being non mobile, don't have any impact on the level of 13 competences out of 19. Further, the effects on the remaining competences are very small. Changing employers instead of working for the same slightly decreases the level of the mastery graduates have on their own field or discipline while it slightly increases the knowledge of other fields or disciplines, the ability of rapidly acquiring new knowledge, the alertness to new opportunities, the ability to present products, ideas or reports to an audience, and the ability to write and speak in a foreign languages. Among graduates who have been successful in obtaining a satisfactory working position – that is among those who are satisfied or very satisfied with their job at the time of the survey – being mobile has a small negative impact on the mastery of ones' own discipline, and a small positive effect on the knowledge of other fields, the alertness to new opportunities, and foreign language proficiency



All in all, it is possible to conclude that being mobile – that is experiencing change because one move from one employer to another – doesn't represent a disadvantage or a loss for graduates as far as the level of possessed competences is concerned. In most cases, working for the same employer or having two or more employer during the first five or six years after graduation yield to the same level of competences. Only in one case, mobile graduates are slightly penalized while in few cases they are slightly favoured.

As we turn to the degree of job satisfaction at the time of the survey, it must be noted that on average mobile and non mobile graduates express the same level of satisfaction: 3,83 points on a five-points scale from 1 “very dissatisfied” to 5 “very satisfied” for non mobile graduates against 3,84 points for mobile graduates. Further, among non mobile graduates 69,5% are satisfied or very satisfied with their job, and 68,4% states the same among mobile graduates.

Table 6: Graduates' job satisfaction by employment mobility.

	Non mobile	Mobile	Very Mobile
Mean values	3,83	3,86	3,81
Percentage (very) satisfied (4 or 5 points)	69%	69%	68%

Source: Reflex 2005.

In the following section, we will raise the question of the wage premium of being non mobile, mobile or very mobile in the external way. Our idea is to measure the wage effect of being mobile or very mobile in each country of the Reflex sample. We keep the same definition as before, non mobile graduates: those who report having had only one employer, mobile graduates, those who declare having had 2 employers. Very mobile graduates are those who had 3 or more employers since they have been graduated.

In order to measure the wage premium of external mobility we use a 2 steps Heckman correction in order to correct the selection bias of our estimation sample. In fact, in our sample only graduates who are employed at the time of the survey are considered. We can assume that the decision of being employed is certainly not random and that there are selection effects related to unobserved characteristics. We use a probit regression in order to estimate the probability of being employed. In order to correct the bias of being employed we introduce some independent variables in the probit regression such as gender, number of years of education, field of education, countries, and father's highest level of education.

The next table shows the estimate of the wage equation with the control of the selection bias of being employed. As usual we use the Logarithm of the wage express in parity of purchasing power. We control the model with some variables such as number of years of education, the number of spells of unemployment, current job's sector, gender and also the country.

Table 6 : wage premium of external mobility.

<b>n=27965</b> <b>Ln wage equation</b>	<b>Parameter Estimate</b>	<b>Standard Error</b>	<b>Pr &gt;  t </b>
<b>Intercept</b>	8.15890	0.02738	<.0001
<b>Numbers of Years of Education</b>	0.05607	0.00284	<.0001
<b>unemployed</b>	-0.14609	0.00539	<.0001
<b>Sector (Public)</b>	-0.10541	0.00506	<.0001
<b>Gender</b>	-0.14024	0.00648	<.0001
<b>Country (Ref Uk)</b>			
<b>Italy</b>	-0.52000	0.02935	<.0001
<b>Spain</b>	-0.78554	0.02416	<.0001
<b>France</b>	-0.26978	0.02587	<.0001
<b>Austria</b>	-0.15249	0.02769	<.0001
<b>Germany</b>	0.13797	0.02606	<.0001
<b>Netherlands</b>	-0.19759	0.02365	<.0001
<b>Finland</b>	-0.01842	0.02399	0.4427
<b>Norway</b>	0.35895	0.02593	<.0001
<b>Switzerland</b>	0.50251	0.02289	<.0001
<b>Czech Republic</b>	-1.92146	0.02154	<.0001
<b>Belgium</b>	-0.21856	0.02787	<.0001
<b>Estonia</b>	-1.92039	0.03189	<.0001
<b>Italy Very Mobile</b>	0.06686	0.02212	0.0025
<b>Italy Mobile</b>	0.07237	0.02248	0.0013
<b>Spain Very Mobile</b>	-0.04882	0.01715	0.0044
<b>Spain Mobile</b>	0.02255	0.02015	0.2631
<b>France very mobile</b>	-0.05401	0.02780	0.0521
<b>France Mobile</b>	0.05787	0.02824	0.0404
<b>Austria Very Mobile</b>	-0.03445	0.02752	0.2107
<b>Austria Mobile</b>	-0.00024654	0.02666	0.9926
<b>Germany Very Mobile</b>	-0.13773	0.02891	<.0001
<b>Germany Mobile</b>	-0.00060203	0.02549	0.9812
<b>Netherlands Very Mobile</b>	-0.02300	0.01889	0.2232
<b>Netherland Mobile</b>	0.05142	0.01849	0.0054
<b>Uk Very Mobile</b>	-0.07423	0.02695	0.0059
<b>Uk Mobile</b>	-0.00007337	0.02873	0.9980
<b>Finland Very Mobile</b>	-0.02670	0.02135	0.2112
<b>Finland Mobile</b>	0.00064487	0.02142	0.9760
<b>Norway Very Mobile</b>	0.01485	0.02313	0.5209
<b>Norway Mobile</b>	-0.00391	0.02217	0.8602
<b>Czech Republic Very Mobile</b>	0.07889	0.01596	<.0001
<b>Czech Republic Mobile</b>	0.07161	0.01281	<.0001
<b>Szwitzerland Very Mobile</b>	-0.02435	0.01610	0.1304
<b>Switzerland Mobile</b>	0.00652	0.01495	0.6628
<b>Belgium Very Mobile</b>	-0.00739	0.02977	0.8039
<b>Belgium Mobile</b>	0.05868	0.02833	0.0383
<b>Estonia Very Mobile</b>	0.12024	0.03426	0.0004
<b>Estonia Mobile</b>	0.10617	0.03461	0.0022
<b>lambda</b>	-0.74183	0.05705	<.0001

Source: Reflex 2005

As usual, being a woman has a negative effect on earning as the fact of being employed in the public sector and to have experienced at least one unemployment spell. On the contrary years of education has a positive effect on earning.

External mobility is not paid in the same ways in different countries. There are 3 groups of results concerning our investigation.

A first major group seems to come up. In this group being very mobile seems to have negative effect on wages and being mobile has positive effect on wages. This group is composed by Spain, France, the Netherlands, Finland, Switzerland and Belgium. Being very mobile has a negative effect on wages. It is very significant in Spain and France. As the same time being mobile (at least two employers since graduation) has positive effect on wages. It is significant in France, the Netherlands and the Belgium.

In a second group, being mobile has a negative effect on wages. This group is composed by Austria, Germany and the United Kingdom. In this group having at least 2 employers has a negative effect on wages. In this group being very mobile has a strongest negative effect than being mobile even if this result is not always significant.

Finally a group composed by Italy, Czech Republic and Estonia seems to be very interesting. In this group external mobility is rewarded. All the results are significant and having a least two employers since graduation seems to be an advantage in terms of earnings. It is very important to show that very mobile graduates are more rewarded than mobile graduate.

A more precise interpretation of these results would require more precise investigations of the labour markets regulation existing in each country.

Winners and losers: internal mobility.

At the time of the survey, 40% of European graduates declared they've experienced a major change in their work tasks since they started to work in their organization. As changing the contents of work tasks is a crucial aspect of functional mobility.

According to the self-perception of respondents, the level of competence required to flexible graduates is always higher than the level required to non flexible graduates (see Table n.7 Among the competences surveyed by the REFLEX Project, the difference is wider (that is, above average) for nine competences while only one competence is equally required to the two groups of graduates. The competences for which the difference is wider are: the ability to negotiate effectively, to mobilize the capacities of others, the alertness to new opportunities, the ability to coordinate activities, to assert your authority, to perform well under pressure, to come up with new ideas and solutions, to work productively with others, and to use computers and the internet. Not surprisingly, the mastery of one's own field or discipline is equally required to both flexible and non flexible graduates.

Table 7: Mean required level of competences by internal mobility.

	<b>Mobile graduates</b>	<b>Non Mobile graduates</b>	<b>Difference</b>
	<i>Means</i>	<i>Means</i>	
ability to negotiate effectively	4,93	4,49	0,44
ability to mobilize the capacities of others	5,07	4,68	0,39
alertness to new opportunities	5,01	4,62	0,39
ability to coordinate activities	5,55	5,23	0,33
ability to assert your authority	4,88	4,56	0,31
ability to perform well under pressure	5,79	5,50	0,30
ability to come up with new ideas and solutions	5,31	5,04	0,27
ability to work productively with others	5,62	5,35	0,26
ability to use computers and the internet	5,55	5,29	0,26
ability to present products, ideas or reports to an audience	4,85	4,60	0,25
knowledge of other fields or disciplines	4,32	4,09	0,24
willingness to question your own and others' ideas	5,04	4,81	0,22
ability to write reports, memos or documents	5,22	5,02	0,20
analytical thinking	5,22	5,02	0,20
ability to use time efficiently	5,73	5,54	0,19
ability to write and speak in a foreign language	3,99	3,81	0,18
ability to rapidly acquire new knowledge	5,45	5,28	0,17
ability to make your meaning clear to others	5,51	5,34	0,17
mastery of your own field or discipline	5,43	5,42	0,01

Source: Reflex 2005.

In this section, we will raise the question of the wage premium of being mobile in the internal way. Our idea is to measure the wage effect of being mobile in each country of the Reflex sample. We keep the same definition as before, non mobile graduates: those who report having changed the contents of work tasks in their job.

Table 8 : wage premium of internal mobility.

<b>n=27965</b> <b>Ln wage equation</b>	<b>Parameter Estimate</b>	<b>Standard Error</b>	<b>Pr &gt;  t </b>
<b>Intercept</b>	8.18046	0.02467	<.0001
<b>Numbers of Years of Education</b>	0.08126	0.00306	<.0001
<b>Gender</b>	-0.17531	0.00517	<.0001
<b>Italy</b>	-0.67202	0.02057	<.0001
<b>Spain</b>	-0.82430	0.01872	<.0001
<b>France</b>	-0.30169	0.02082	<.0001
<b>Austria</b>	-0.23877	0.02210	<.0001
<b>Germany</b>	0.03106	0.02206	0.1592
<b>Netherlands</b>	-0.16741	0.01928	<.0001
<b>Finland</b>	-0.04828	0.01957	0.0136
<b>Norway</b>	0.42826	0.02006	<.0001
<b>Switzerland</b>	0.50015	0.01827	<.0001
<b>Czech Republic</b>	-1.92951	0.01808	<.0001
<b>Belgium</b>	-0.11736	0.02306	<.0001
<b>Estonia</b>	-1.83673	0.02510	<.0001
<b>Italy mobile</b>	0.08689	0.01870	<.0001
<b>Spain mobile</b>	0.04169	0.01508	0.0057
<b>France mobile</b>	0.09674	0.02700	0.0003
<b>Austria mobile</b>	0.16556	0.02247	<.0001
<b>Germany mobile</b>	0.15086	0.02280	<.0001
<b>Netherlands mobile</b>	0.05879	0.01534	0.0001
<b>Uk mobile</b>	0.07427	0.02271	0.0011
<b>Finland mobile</b>	0.12435	0.01856	<.0001
<b>Norway mobile</b>	0.04082	0.02002	0.0415
<b>Czech Republic mobile</b>	0.12261	0.01176	<.0001
<b>Switzerland mobile</b>	0.11483	0.01356	<.0001
<b>Belgium mobile</b>	0.04204	0.02436	0.0844
<b>Estonia mobile</b>	0.10585	0.02876	0.0002
<b>lambda</b>	-1.29821	0.05558	<.0001

Sourc : Reflex 2005.

Compared to wage premium external mobility, wage premium mobility has the same effect in all the countries. As it is shown in table 8, internal mobility is rewarded in all countries of the Reflex dataset. In Germany and Austria, internal mobility is much rewarded than other countries.

#### External mobility vs Internal mobility

In this section, we will raise the question of the wage premium of being mobile in the internal way and in the external way. We created 4 groups: one is graduates who have experienced both internal and external mobility, another one is composed by graduates who have experienced internal mobility but no external mobility, another one is composed by graduates who have experienced external mobility but no internal mobility and a last one is composed by graduates who haven't experienced mobility during the 5 years after graduation.

Table 9: Type of mobility.

Type of mobility	N	Frequency
Internal no external	5100.464	18%
Internal and external	6053.862	21%
No internal and external	11195.62	39%
No internal no external	6162.592	22%

Source : Reflex 2005.

Almost 40 % of the graduates have experienced external mobility but no internal mobility during the 5 years after graduation. This proportion is very high in Spain, Switzerland and Norway where almost 50% of the graduates are in this case. More than 22% of graduates haven't experienced mobility, in Czech Republic a third of the graduates is in this case.

As it has been done before, we used a 2 steps Heckman correction in order to measure the wage premium of mobility in each country.

Table 10 : wage premium of internal and external mobility.

n=27965 Ln wage equation	Parameter Estimate	Standard Error	Pr >  t
<b>Intercept</b>	8.01667	0.03196	<.0001
<b>Numbers of Years of Education</b>	0.07000	0.00314	<.0001
<b>Gender</b>	-0.16725	0.00650	<.0001
<b>Italy</b>	-0.76389	0.03356	<.0001
<b>Spain</b>	-0.82324	0.03219	<.0001
<b>France</b>	-0.33500	0.03323	<.0001
<b>Austria</b>	-0.26508	0.03674	<.0001
<b>Germany</b>	0.06008	0.03484	0.0846
<b>Netherlands</b>	-0.19490	0.03314	<.0001
<b>Finland</b>	-0.05904	0.03296	0.0733
<b>Norway</b>	0.40929	0.03354	<.0001
<b>Switzerland</b>	0.47716	0.03096	<.0001
<b>Czech Republic</b>	-1.97488	0.02944	<.0001
<b>Belgium</b>	-0.15312	0.03794	<.0001
<b>Estonia</b>	-1.92404	0.04164	<.0001
<b>Italy</b>			
<b>Internal no external mobility</b>	0.18283	0.03026	<.0001
<b>Internal and external mobility</b>	0.16251	0.02656	<.0001
<b>No internal but external mobility</b>	0.08655	0.02401	0.0003
<b>Spain</b>			
<b>Internal no external mobility</b>	0.07932	0.02744	0.0039
<b>Internal and external mobility</b>	-0.02722	0.02177	0.2113
<b>No internal but external mobility</b>	-0.05568	0.01940	0.0041
<b>France</b>			
<b>Internal no external mobility</b>	0.14938	0.03978	0.0002

<b>Internal and external mobility</b>	0.09595	0.03763	0.0108
<b>No internal but external mobility</b>	-0.02476	0.02654	0.3510
<b>Austria</b>			
<b>Internal no external mobility</b>	0.15303	0.03237	<.0001
<b>Internal and external mobility</b>	0.09175	0.03375	0.0066
<b>No internal but external mobility</b>	-0.07905	0.02840	0.0054
<b>Germany</b>			
<b>Internal no external mobility</b>	0.20119	0.03613	<.0001
<b>Internal and external mobility</b>	0.14295	0.03321	<.0001
<b>No internal but external mobility</b>	0.00004723	0.02994	0.9987
<b>The Netherlands</b>			
<b>Internal no external mobility</b>	0.08269	0.02481	0.0009
<b>Internal and external mobility</b>	0.05112	0.02352	0.0297
<b>No internal but external mobility</b>	0.00960	0.02241	0.6685
<b>UK</b>			
<b>Internal no external mobility</b>	0.06102	0.03829	0.1110
<b>Internal and external mobility</b>	-0.01951	0.03500	0.5771
<b>No internal but external mobility</b>	-0.08223	0.03383	0.0151
<b>Finland</b>			
<b>Internal no external mobility</b>	0.13533	0.02679	<.0001
<b>Internal and external mobility</b>	0.10603	0.02982	0.0004
<b>No internal but external mobility</b>	-0.02728	0.02233	0.2219
<b>Norway</b>			
<b>Internal no external mobility</b>	0.07863	0.03193	0.0138
<b>Internal and external mobility</b>	0.02026	0.02848	0.4768
<b>No internal but external mobility</b>	0.00460	0.02361	0.8455
<b>Switzerland</b>			
<b>Internal no external mobility</b>	0.12648	0.01612	<.0001
<b>Internal and external mobility</b>	0.19482	0.01771	<.0001
<b>No internal but external mobility</b>	0.05980	0.01355	<.0001
<b>Czech Republic</b>			
<b>Internal no external mobility</b>	0.17817	0.02136	<.0001
<b>Internal and external mobility</b>	0.07800	0.01983	<.0001
<b>No internal but external mobility</b>	-0.00086813	0.01635	0.9577
<b>Belgium</b>			
<b>Internal no external mobility</b>	0.05498	0.03697	0.1370

<b>Internal and external mobility</b>	0.01844	0.03644	0.6128
<b>No internal but external mobility</b>	0.00866	0.03280	0.7917
<b>Estonia</b>			
<b>Internal no external mobility</b>	0.15573	0.04777	0.0011
<b>Internal and external mobility</b>	0.19882	0.04134	<.0001
<b>No internal but external mobility</b>	0.12146	0.03871	0.0017
<b>lambda</b>	-0.67558	0.05410	<.0001

Source: Reflex 2005.

One major result is that the fact of being mobile in an internal way has positive effect on wages. This result is almost significant in all countries. It can be said that being mobile in an internal way and no mobile in external way has biggest effect than being mobile both ways.

The findings display two groups. The first group composed by Estonia, Belgium, Switzerland, Italy, Germany, The Netherland and Norway, in this group mobility is rewarded. These effects are mostly all significant. We can see that external mobility is rewarded but the effect is not significant, except for Italy, Estonia and Switzerland. We can say also that the effect of external flexibility is lower on wages then other type of mobility.

The second group is composed by Czech Republic, Finland, France and Austria, in this group the external mobility without internal mobility has negative effect on wages and internal mobility without external mobility is much rewarded than being mobile in both ways.

Discussion:

REFLEX data show that few graduates are exposed to the hard side of external flexibility, that is are exposed to the continuous effort of employers to adjust the volume and the composition of the labour force to environmental changes. During the first five or six years after graduation, only 14% of the graduates reports having lost a job and having being unemployed one or more times. Only 15% of respondents had a fixed-term contract both in their first job and in their current work being – very likely – trapped within temporary work.

Yet, in the period taken into consideration by our research project European graduates do experience external flexibility: 45% of them reports having a fixed-term contract in their first job, and 60% moved at least one time from one employer to another. The findings presented in this chapter show nonetheless that the exposure to external flexibility is a temporary experience linked to graduates' early career.

As the temporary experience of external mobility is linked with the transition from study to work, to a phase of exploration of the world of work, to a period of trails and errors, or to the effort of realizing aspirations and professional projects, we propose to refer to this aspect of external mobility as “transitional mobility”. In this understanding of external mobility, “being a mobile graduate” means being mobile “in transition”.

Transitional mobility is a major part of the reality of flexibility because it involves large numbers of European graduates. For these graduates, mobility is not only a temporary experience but also a non-warming experience.

In most cases, mobile graduates are not disadvantaged compared to non mobile graduates. As we have seen, they reach more or less the same level of competence than their non mobile colleagues. Maybe they lose a bit of the mastery of their own discipline but they gain a bit of



some other useful competences, such as the ability to write and speak in a foreign language, and the alertness to new opportunities. Moreover, five or six years after graduation they have been successful in obtaining a satisfactory work just as non flexible graduates.

Finally, "being mobile" refers to the exposure to functional flexibility within the workplace. As employers resort to functional flexibility, graduates face major changes in their work tasks, and need to be able to adapt to these changes. In this third understanding, "being a mobile graduate" means being confronted with major changes in work tasks, and being forced to cope with these changes.

Being mobile in the internal way seems to be an advantage in terms of wages than being mobile in an external way. Internal mobility seems to be always rewarded in the European countries. On the contrary external mobility is not rewarded in all the countries, these results needs more improvements in order to be explained.

First of all, the explanation of wage premium needs to be confronted to data on labour market in each country. Investigation on labour market needs to be explored in order to understand how labour market reward mobile graduate. In the same way we need to take into account difference in terms of profession and of sectors.

Secondly, explanation on flexibility needs to be explored; we shall investigate how firms decide to use flexibility in their strategies. We need to understand the drivers of flexibility and to know if it has a concern with the intensity of innovation. Reflex survey gives some indicators on the intensity of innovation, the scope of operations of organisation etc.....

Finally, we shall explore the question of voluntary and involuntary mobility; we suppose that voluntary mobile graduates are more able to take advantage of flexibility than the others.

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