

Subjective and objective job insecurity in Europe: measurement and implications.

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1. Introduction

According to the German sociologist Ulrich Beck we live in a society of risk where “endemic insecurity will in future characterise the lives and the foundations of the lives, of the majority of the population - even in the apparently affluent centre of society”¹. Although insecurity can be present in all realms of human life from personal relation to health, one of the major areas of worry in this respect is the realm of employment. Both in Europe and the USA income from work makes up to 70 % of average family income, thus job insecurity has an impact on life insecurity as a whole. In this context, this papers intents to study the dimensions on job insecurity in Europe from a double perspective: the objective perspective derived from the data on fix term versus open ended employment contract, and subjective data derived from opinion surveys. The paper is organized as follows: in the next section we will discuss why job security is important. Then we will review the different ways of measuring job security. With this background, section 4, using the Woliweb data set, will analyse whether the differences observed in subjective job insecurity within and among countries can be explained in terms of individual characteristics of workers, if those individual characteristics play a similar role in every country and if country specific variables are also important. Section five will study in more detail the implication of job insecurity in terms of wages and possible changes in lifestyles. Last, section six will summarized the main conclusion arrived in the paper.

2. Why is job security important?

According to the 1997 edition of the International Social Survey Program, when workers are asked about what makes a good job, they mention a vector of attributes

¹ Ulrich Beck (1999) “Goodbye to All That Wage Slavery”, *New Statesman*, 5/3/1999.
<http://www.newstatesman.com/199903050020>

(table 2.1) including from job security to flexible working hours. In this respect, and contrary to the mainstream analysis of the labour market, where jobs seem to have only one dimension: their wage, or at most two, wage and working time, according to the survey high wages is only one of the items mentioned, and in fact, one of the least important. Job security comes in first place, followed by the type of work performed: whether is interesting, helpful and allows you to work independently. It is only after these, and at a considerable distance, that wages, and opportunities for advancement and flexible working hours are considered important.

Table 2.1 ¿What makes a good job?

item	workers saying “very important”
Job security	55.3%
Interesting job	49.9 %
Allows to work independently	32.3 %
Allows to help other people	27.0 %
Useful to society	22.3 %
High income	20,5 %
Good opportunities for advancement	18.7 %
Flexible working hours	17.2 %

Note: 13,727 workers interviewed from 19 OECD countries

Source: Clark A. E. (1998) *Measures of Job Satisfaction. What Makes a Good Job? Evidence from OECD Countries*. Labour Market Policy Occasional paper No. 34. OECD. Paris.

Similar results can be found in other surveys, as the 2001 Eurobarometer, reproduced in table 2.2. As we can see, job security is not only on average the most important attribute of a good job for the European workers, furthermore, most countries are consistent in pointing at this attribute as the most important, with the sole exception of Denmark, Sweden and the Netherlands, where job security is surpassed by friendly working environment².

² National surveys, as the Spanish Barometer of May 2005, produced by the Centre for Sociological Research, confirm this patten. In this survey, to the question of: “which of the following aspect of a job do you value more? 74 % answered job security, followed by high wage (50 %).

For you personally, how important do you think each of the following is in choosing a job? Proportion saying it is very important

	EU15	Belgium	Denmark	Greece	Italy	Spain	France	Ireland	Luxembourg	The Netherlands	Portugal	Finland	Sweden	Austria	Germany	UK	Coef. Of variation
A secure job	58,5	64,0	42,4	73,5	57,4	65,4	59,0	47,5	63,2	38,5	46,1	60,3	51,4	65,0	63,1	54,2	0,173
Friendly people to work with	48,7	50,3	64,2	68,3	37,5	47,1	50,8	47,4	58,3	51,1	30,2	47,9	65,0	51,1	50,7	50,0	0,193
A job that gives you the opportunity to use your abilities	44,2	35,8	55,5	65,9	46,4	40,9	53,1	43,2	47,3	36,2	26,5	48,4	52,8	51,3	39,1	42,7	0,210
A job that enables you to use your own initiative	38,7	32,5	54,7	59,9	30,5	41,1	42,8	43,2	43,3	26,5	26,1	40,8	50,1	44,2	38,0	40,0	0,233
Convenient hours of work	33,4	31,7	24,1	56,2	30,2	41,1	46,5	36,1	35,7	21,7	18,7	31,5	21,0	35,2	23,9	38,2	0,314
A high income	32,9	37,1	17,4	76,7	35,6	47,7	36,0	40,0	30,0	11,7	44,0	18,4	15,4	35,3	27,1	28,0	0,482
A job that allows you to work independently	31,5	28,4	53,1	51,7	30,2	28,8	29,3	33,1	39,3	24,2	22,8	33,9	40,4	50,1	35,1	25,6	0,283
Good Training Provision	30,5	24,0	26,9	49,1	29,1	34,2	31,1	37,1	34,9	18,2	25,8	16,3	26,0	43,5	25,6	39,8	0,295
A job with flexible working hours	27,8	22,9	27,8	47,1	29,5	36,3	28,6	32,7	38,2	24,7	18,5	25,0	23,2	37,9	21,8	29,1	0,260
A job that gives promotion opportunities	27,1	24,4	11,8	57,8	24,5	37,6	33,8	33,4	30,0	13,0	24,9	7,0	11,7	31,8	22,5	28,0	0,487
A job with a lot of variety	23,6	23,4	43,3	32,5	18,2	20,2	26,4	28,1	34,4	27,5	12,6	27,7	33,6	43,5	21,0	24,3	0,311
A job with an easy workload	13,3	13,7	8,5	34,0	12,5	31,1	15,2	22,4	5,8	3,6	10,3	3,2	8,3	12,4	6,5	13,1	0,690
A job that allows you to work all/a lot of time at home	10,4	13,1	7,1	21,9	8,8	15,2	11,2	23,0	16,3	8,6	10,9	3,8	2,4	14,9	7,2	11,9	0,501
A job that leaves a lot of leisure time	20,0	18,8	19,7	51,1	25,4	30,0	23,6	26,3	29,7	22,9	15,7	3,2	8,3	12,4	6,5	13,1	0,581

Note: Overall size 15,943, in work: 7,715

Source: Authors analysis from Eurobarometer 56.1 (2001)

Thus the data is clear about the importance conferred by workers to job stability *per se*. However, in these two data sets, it is not possible to know what the respondents consider to be job security. Whether they consider a job secure when having a permanent contract (objective job insecurity) or if there are many other variables playing a role in workers' feeling secure or insecure in their work place (subjective job insecurity). There is a need for an approach to the relationship, interaction, measurement and consequences of objective and subjective job insecurity.

Indeed job insecurity can indirectly have other effects on workers wellbeing. It can be argued that having temporal contracts (one possible way of measuring objective job insecurity, see next section) has a negative impact on wages and training, and a positive impact on the probability of having accidents at work. Last, job insecurity can have implications in terms of life styles. In the next section we will review the existing evidence on these items using *woliweb* data and other sources of information, but before we will discuss the different ways of measuring job insecurity.

3. Measuring job insecurity

There are two possible general ways to measure job insecurity. The first one is using direct objective measures of job insecurity. The most direct measure is the proportion of workers with temporary contract and a certain closed date of ending of their work relation. Paradoxically, these workers are not "insecure" in the sense of not knowing what is going to happen to them in terms of their employment relation. They have full certainty about their future, although often the uncertainty is related to whether they will be able to get another temporary or permanent job with their present employer. Temporary employment is something quintessential to some productive activities highly discontinuous and of relatively short duration: salespersons during special season, lifeguards in summer swimming pools, etc. Although there is evidence, as we will see later on, that there has been a denaturalization of the temporary employment relation increasingly associated now not to the temporal nature of the productive activity, but to strategy to reduce the obligations of the firms towards their workers in case of dismissal, as it is very common that workers with open ended contracts have certain rights in terms of redundancy payments. Thus one first way of measuring job insecurity

is by looking at the proportion of workers with fix-term contracts. Furthermore, as temporary contracts can be of very different duration, we can fine-tune this indicator by looking at the average duration of contracts or their distribution in terms of duration.

But it is clear that not only employees with temporary work feel insecure in their jobs. Open ended contracts are not permanent contract (even if for the sake of economy of language they are often are named), as the song goes: “nothing last forever but the earth and sky”. From this perspective, a possible alternative way of measuring job security is to look at workers seniority identifying higher seniority rate, in terms of average years of seniority with lower insecurity.

Alternatively we can adopt a different approach and focus on the sense or feeling of insecurity experienced by workers. From this perspective we would identify job insecurity with the (subjective) perception of workers in relation to their job security. The logical way of constructing such an indicator is using opinion surveys directed to workers asking whether they worried about their job or whether they feel their job is secure. We would expect that markets with higher temporary employment would show a higher rate of subjective insecurity, but there are many other things that affect subjective insecurity (as systemic change, the moment of the economic cycle, etc) on top of temporary work, thus differences between both indicators are to be expected.

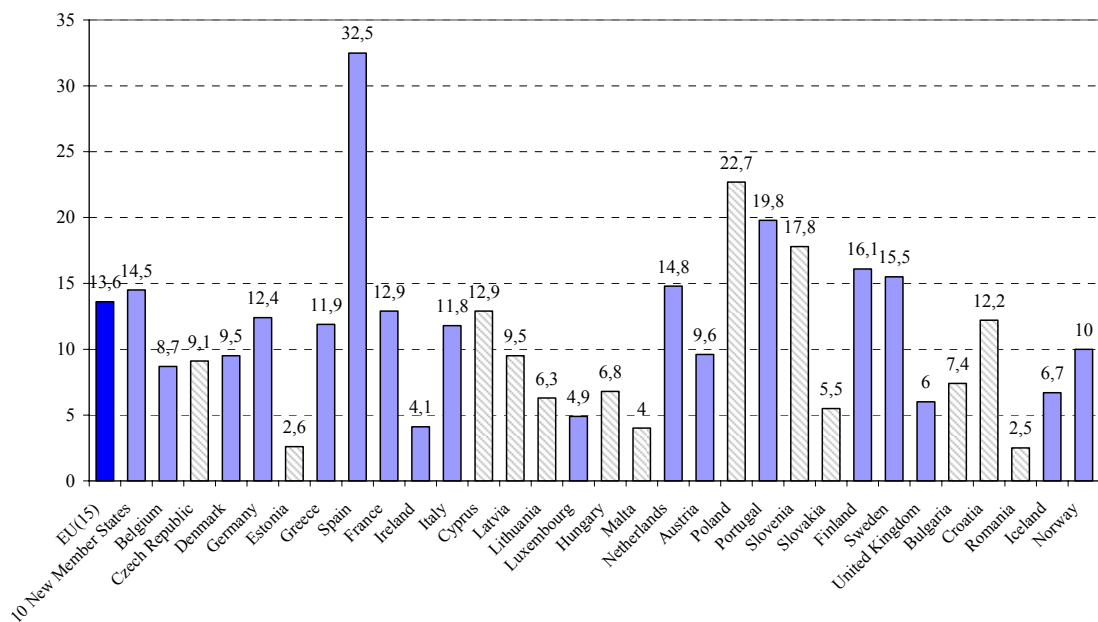
3.1. Job insecurity in Europe according to LFS data.

Most Labour Force Surveys offer data on the proportion of workers with temporary contract since the late 80’s or early 90’s³, so we can have a fairly good picture of the level and evolution of temporary employment during the last decade at EU level. The analysis of the available data allows three important conclusions in relation to job insecurity in Europe as measured by this first indicator:

³ This fact itself is quite revealing as can be interpreted in terms that before that date the proportion of temporary employment was to low to be considered relevant for the knowledge of the labour market. In Spain, for example, the first estimate of temporary employment available through the LFS is for 1987, three years after the deregulation of the labour law dealing with contracts made this type of contract much more common.

- (1) There is a high level diversity in terms of temporary employment among the member States of the European Union. As we can see in figure 3.1 in some countries as Ireland, Estonia or Luxembourg temporary employment is very unusual, while in others, is characteristic of an important proportion of the population (almost 1/3 of employees in Spain and more that 1/5 in Poland). In general, the new member countries, with the exception of Poland have lower proportion of workers with temporary contract.

Figure 3.1 Temporary employment 2004 (%)



Source: Labour Force Survey. Eurostat.

- (2) With few exceptions, the rate of temporary employment has increased in the last decade and a half. In table 3.1 we can see the change of the proportion of employees with temporary contract both in relative terms and in percentage points. Although the data is not strictly comparable due to differences in the period analysed: 1992-2004 for most of the UE (15), 1997-2004 for the new member states plus Sweden, Finland and Austria, and shorter periods for the rest of the countries included, most countries show significant increases in relative terms. Within this group of countries with growing rates of temporality, Poland stand out for his very high increase from 4 % to 22 % in

a period of just 7 years. This behaviour reminds of the rapid change of the Spanish labour market in the late 80's after the generalization of the use of temporary contracts by Spanish firms. Most of the new member countries also show a relevant relative increase in temporary employment, although due to the very low level of departure, the increase in absolute points is still low. Only in 5 countries we can find a significant (above 10 %) decrease in the temporality rate. Last, as we can see in figure 3.2, once we exclude the new member States there has not been a process of σ convergence in temporary employment rates in Europe. Nevertheless, as we can see in figure 3.3, the growth in temporary employment rate is negative related with the rate of temporary employment in the base year. In this sense we could talk of the existence of a slow pseudo β convergence.

- (3) In terms of the gender distribution of temporary employment, as we can see in column 4 of table 3.1, there is a clear distinction between the EU (15) (plus Iceland and Norway), where women suffer from a higher temporary employment rate, 11.6 % higher for the EU (15), and the new member countries (excluding Cyprus), where the incidence of temporary employment among women is lower. According to a first analysis of the data, among the distribution of the gender gap among countries doesn't seem to be related to the female participation rate or to the level of temporary employment.

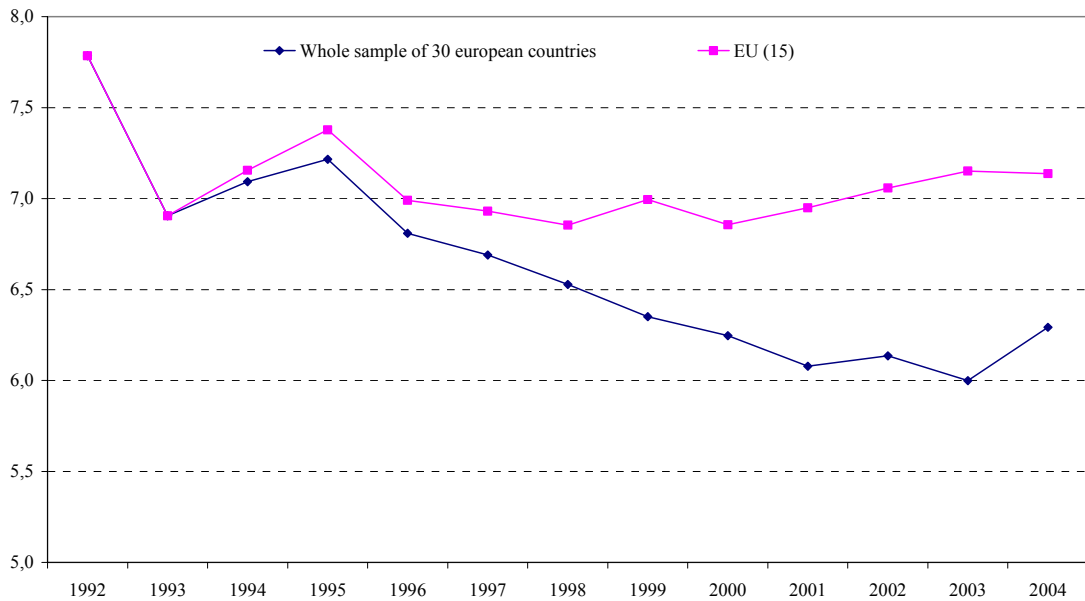
Table 3.1. Evolution of temporary employment rate

	Period	Total change in percentage points	Total relative change (%)	Temporary employment gender gap*
EU(15)	1992-2004	2.4	21.4	11.63
10 New Member States	1997-2004	9.1	168.5	-7.33
Belgium	1997-2004	3.7	74.0	82.81
Czech Republic	1998-2004	2.4	35.8	37.18
Denmark	1992-2004	-1.2	-11.2	18.39
Germany	1992-2004	1.9	18.1	-3.94
Estonia	1998-2004	0.5	23.8	-48.57
Greece	1992-2004	2.3	24.0	33.33
Spain	1992-2004	-1.7	-5.0	15.03
France	1992-2004	2.3	21.7	18.64
Ireland	1992-2004	3.9	44.3	24.32
Italy	1993-2004	3.9	49.4	46.46
Cyprus	1999-2004	2.6	25.2	108.24
Latvia	1998-2004	1.5	18.8	-37.07
Lithuania	2000-2004	1.9	43.2	-55.17
Luxembourg	1992-2004	1.5	44.1	46.34
Hungary	1997-2004	0.2	2.8	-18.67
Malta	2000-2004	-0.1	-2.4	87.10
Netherlands	1992-2004	4.4	42.3	23.13
Austria	1997-2004	1.8	23.1	-11.76
Poland	1997-2004	17.9	372.9	-9.28
Portugal	1992-2004	7.8	65.0	12.83
Slovenia	1999-2004	7.3	69.5	14.37
Slovakia	1998-2004	1.3	31.0	-15.00
Finland	1997-2004	-2	-11.0	54.76
Sweden	1997-2004	0.4	2.6	29.63
United Kingdom	1992-2004	0.1	1.7	18.18
Bulgaria	2001-2004	1.1	17.5	-9.09
Croatia	2002-2004	1.3	11.9	2.48
Romania	1997-2004	-0.5	-16.7	-31.03
Iceland	2003-2004	-1.2	-15.2	43.64
Norway	2000-2004	-2.7	-20.9	19.33

*Temporary employment gender gap = [(Female temporary employment rate - Male temporary employment rate) / Male temporary employment rate] %

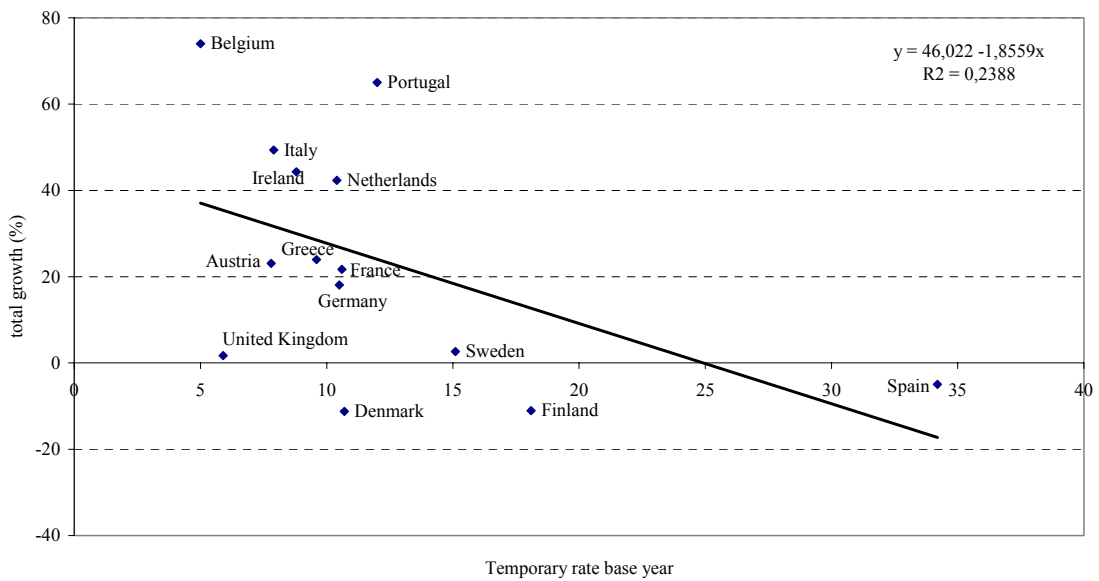
Source: Eurostat and Statistics Norway.

Figure 3.2. Convergence sigma in temporary employment rate among EU countries (1992-2004)



Source: Author's analysis from Eurostat data.

Figure 3.3. Temporary employment rate in base year (1992*) and temporary employment rate growth (1992-2004). EU (15)



* Sweden, Finland, Italy and Austria, 1997.
 Source: Author's analysis from Eurostat data.

As temporary workers can have contracts of very different duration, and so with very different implications in terms of wellbeing, an interesting and necessary complement to the information about job insecurity provided by the temporary

employment rate is data on the distribution of the duration of the contracts among temporary workers. In table 3.2 we can see the duration of contracts in 8 European countries according to the Woliweb data set. Once again, the data reflects the high diversity of the European countries. Belgium, for example, has a comparatively high proportion of temporary workers with very short term contracts, while this type of short duration contract is very rare in Finland or Poland. In contrast, Finland and Spain have the largest percentage of temp workers with contracts with duration of half a year or less. In terms of average duration, paradoxically the two countries with lower duration, Spain and U.K, are in both ends of the spectrum of temporary employment. But if we exclude Spain from the sample, there is a significant direct relation between the intensity of use of fix term contracts and their duration: low percentage and short duration in U.K. and Belgium at one end and higher percentage and longer duration in the Netherlands or Germany at the other end.

Table 3.2 Duration of temporary contracts

	Belgium	Finland	Germany	NL	Poland	Spain	UK	Total
1 - 2 days	1	0,2	0,6	0,4	0,2	0,3	0,5	0,5
3 - 6 days	6,7	0,2	0,3	0,6	0,1	0,2		0,7
Less than a week	7,7	0,4	0,9	1	0,3	0,5	0,5	1,2
1 - 4 weeks	4,3	1,3	0,4	0,5	0,7	0,7	1,4	0,7
1 - 3 months	7,4	9,1	2,8	4,2	12,8	6,9	5,8	4,8
3 - 6 months	15,7	24,2	9,6	18,9	10,7	21,2	12,7	16,1
6 months or less	35,1	35	13,7	24,6	24,5	29,3	20,4	22,8
1/2 - 1 year	25,8	34,2	22,2	44,3	26,1	23,6	19,9	33,8
1 year or less	60,9	69,2	35,9	68,9	50,6	52,9	40,3	56,6
1 - 2 years	15,4	11,8	23,9	17,2	20,9	8	12,5	17,9
2 years or more	8,8	8,3	26,2	4,9	25,8	5,6	14,9	12,2
Not agreed	14,8	10,7	14	9	2,6	33,5	32,4	13,3
Average duration*	7,91	8,76	9,41	10,99	9,19	6,32	6,45	9,43
% temporary contracts in Woliweb	7,6	16,8	15,4	21,7	32,4	24,1	9,5	17,3
% temporary contracts in LFS	8,7	16,1	12,4	14,8	22,7	32,5	6	
Over/under representation of Woliweb %	-12,6	4,3	24,2	46,6	42,7	-25,8	58,3	

* Average duration of contracts less than 2 years and with agreed duration. Calculated using the average within each range of duration.

3.2. Job insecurity in Europe according to subjective indicators.

In clear contrast with the general availability of data on temporary contracts, in the EU there is no periodic data on subjective job insecurity. The only information available

for the 15 member states are two Eurobarometers carried out in 1996 and 2001⁴, the first one aiming at studying employment in Europe from a general point of view, and the second focusing on social precariousness and social integration. In both, interviewed workers were asked to react to the statement: “my current job is secure”, by choosing among four different answers: very true, not very true, a little true and not true at all. The results are reproduced in table 3.2.

Table 3.2. Proportion of workers saying their job is secure:

	Very true		Quite true		A little true		Not at all true		Doesn't know		Job security in last 5 years prior to 1996	
	1996	2001	1996	2001	1996	2001	1996	2001	1996	2001	significant decrease	significant increase
EU	28,4	27,9	34,3	35,1	18,4	19,2	14,3	13,1	4,6	4,3	26,0	21,7
Male	28,9	28,5	33,9	35,1	17,9	19,2	14,5	14,1	4,8	4,2	25,4	22,9
Female	27,7	27,1	34,9	34,9	19,0	19,4	14,0	13,5	4,3	4,5	26,8	20,2
Austria	35,4	26,9	31,6	31,8	18,1	29,4	9,9	9,3	5,0	2,5	22,4	24,5
Belgium	27,4	32,2	44,8	34,6	13,8	15,1	10,3	12,5	3,7	5,7	19,8	48,1
Denmark	55,2	47,5	29,8	36,2	8,0	11,1	5,4	4,6	1,6	0,61	15,7	32,2
Finland	30,0	26,6	33,9	35,6	16,7	17,6	15,4	14,9	4,0	5,31	29,0	29,3
France	20,6	30,9	35,3	22,8	21,4	17,2	19,6	26,7	3,1	2,4	25,7	27,7
Germany E.	12,1	....	27,1	....	25,0	....	19,6	....	16,3	....	49,9	25,2
Germany W.	29,2	27,5	35,0	35,9	20,5	26,7	9,2	2,8	6,0	6,9	29,7	24,4
Great Britain	32,4	25,3	38,3	35,6	13,9	22,4	12,9	9,5	2,4	7,1	34,1	27,8
Greece	33,2	37,9	24,5	28,1	23,3	17,14	16,5	15,7	2,6	1,1	8,8	24,0
Ireland	30,0	32,2	30,0	31,7	15,6	17,1	14,0	11	10,4	8,0	12,2	25,6
Ireland N.	23,8	....	45,9	....	14,1	....	9,4	....	6,8	....	26,1	20,3
Italy	28,4	22,0	39,8	49,1	10,3	16,3	15,1	9,3	6,4	3,3	13,5	17,0
Luxembourg	37,5	51,3	24,9	24,7	20,6	14,8	14,4	7,3	2,6	1,9	8,7	15,9
Netherlands	39,5	41,5	28,4	28,6	17,4	17,8	14,3	8,5	0,4	3,6	22,3	23,9
Portugal	23,7	23,4	33,6	42,1	24,2	21,8	14,3	8,8	4,3	4,0	13,6	18,1
Spain	27,9	25,0	20,2	34,6	28,6	23,6	20,2	14,9	3,0	1,9	20,2	17,4
Sweden	26,3	49,4	40,2	28,8	16,4	6,96	15,4	10,4	1,7	4,8	27,4	9,6

Note: N 1996=6558; 2001 = 7715

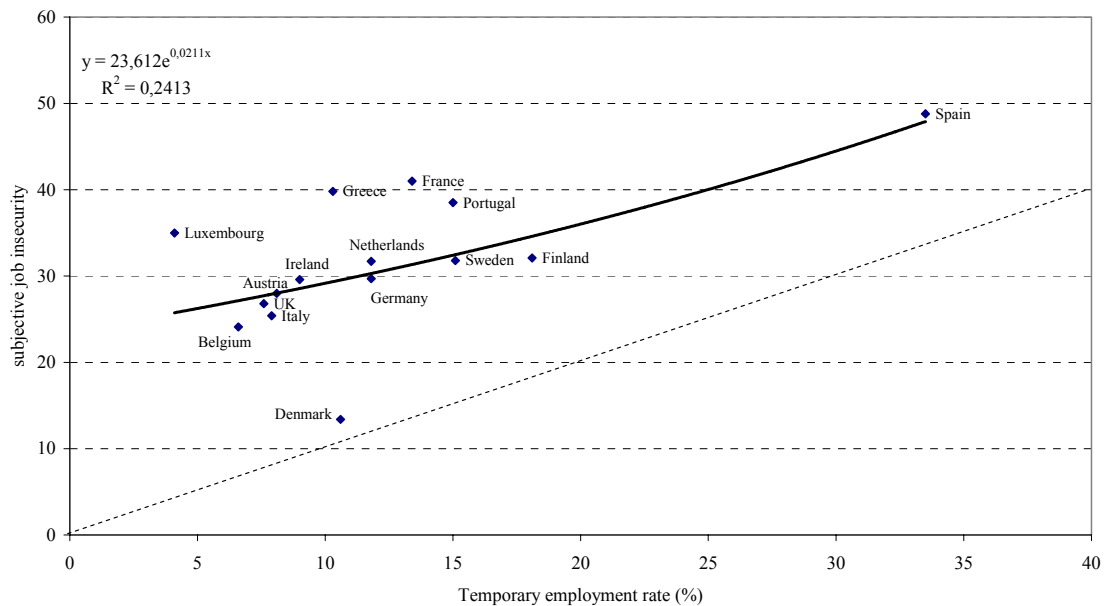
Source: Gallie (1997), p. 41 and Eurobarometer 56.1 (2001)

As we can see, in both years the percentage of workers feeling secure is lower than the percentage of workers with open ended contracts. This points to the existence of insecurity beyond that related with temporary contracts: having a (badly named) “permanent contract” is not equivalent to not being worried about job security. Workers with open ended contracts can feel insecure if they work in sectors vulnerable to foreign

⁴ See D. Gallie, (1997): Employment, Unemployment and the Quality of Life: The Employment in Europe. Survey 1996. Eurobarometer 44.3. Report prepared for the European Commission, and D. Gallie and S. Paugam (2002), Social precariousness and social integration, Report to the European Commission, DG Employment, Eurobarometer 56-1

competition, or if their companies face financial troubles for example. Figure 3.4, which reproduces both indicators of job insecurity, is clear in this sense. Although subjective insecurity is related to temporary employment rate, the relation is very far from being tight, especially if we exclude Spain from the sample.

Figure 3.4. Temporary employment rate and subjective job insecurity (1997)



In the following pages we will explore this question using the Woliweb data base 2005, aiming at deciphering the variables affecting the different subjective job insecurity. The Woliweb questionnaire includes a question asking workers to choose among 5 possible answers (fully disagree, disagree, neutral, agree, and fully agree) to the statement: I worry about my job security. In this sense the question is not strictly comparable with the question on this item of the Eurobarometers discussed above. Nevertheless, we think is reasonable to put in the same level those saying they disagree and fully disagree in woliweb and those answering very true and quite true to the affirmation my job is secure in the Eurobarometer. In table 3.3 we can see the proportion of workers who worry about their jobs security in the woliweb countries.

Table 3.3. Proportion of answer to the question: I worry about my job security (2005)

	Full disagree	Disagree	Neutral	Agree	Fully agree	Subjective insecurity index*	Temporality employment rate (2004)
Denmark ⁽¹⁾	42.0	14.0	14.0	4.0	26.0	30,0	9,5
Belgium	36.0	19.5	15.3	10.3	18.9	29,2	14,5
Finland	24.4	21.9	14.1	15.2	24.4	39,6	16,1
Germany	30.1	19.9	15.6	11.8	22.7	34,5	12,4
Netherlands	36.7	19.4	14.5	10.8	18.6	29,4	14,8
Spain	28.8	11.8	12.4	8.7	38.3	47,0	32,5

⁽¹⁾Very low number of respondents

* Agree plus fully agree

Source: author's analysis from Woliweb data

The first thing that strikes from table 3.3 is that subjective insecurity, SI, is much higher than the rate of temporary employment, TE, in all countries. In fact, although for the whole sample there is a close relation between both indexes: $SI = 22.976 + 0.716 TE$, with an R^2 of 0.735, the result is extremely dependent on the introduction of Spain in the sample. Once we remove Spain, the relation is still positive, but with a much lower R^2 (0.166).

Woliweb data allows doing a detailed study of the differences in subjective insecurity according to different characteristics of the workers. In table 3.4, for example, we can see the different SI indexes for Spain, a country especially interesting in relation to this issue for its high temporality rate, according to the characteristics of workers, and the sector of activity⁵. As expected, workers with temporary contracts have higher subjective insecurity index than workers with “permanent” contracts (43.6 % versus 58.4 %). The same is valid for workers with more education compared with workers with less education. In this respect, university workers have a SI index of 37.9 %, while those with primary education have an index of 60.8 %. Another interesting feature is the fairly similar level of SI across age: 44.4 % among those from 16 to 19 years old, 45.6 % for those 25 to 34 and 48.3 for those 34-54. In fact, we can observe a slightly growing percentage of insecurity, a result at odds with the percentage of incidence of temporary employment by age groups according to the LFS (1st quarter 2005), the contingency rate of workers 16 to 19 year olds was the highest, 76.5 %, decreasing to

⁵ In the Appendix A.1 the reader will find the descriptive statistics corresponding to the rest of the countries of the sample.

45.3 for those from 25 to 29 and to 15 % for those from 50 to 59. In this respect, it can be argued that the sense of insecurity could be fuelled by the higher cost of losing the job for mature workers, both in terms of forgone earnings and in terms of lower probability of finding a job.

Table 3.4 Proportion of workers who worry about their job security according to different characteristics. Spain 2005.

SPAIN	Fully disagree	Disagree	Neutral	Agree	Fully agree	Subjective insecurity index*
Total	28,8	11,8	12,4	8,7	38,3	47,0
Male	29,1	13,1	12,7	9,4	35,8	45,2
Female	28,2	9,6	11,6	7,6	43,0	50,6
Agriculture	28,6	2,4	4,8	2,4	61,9	64,3
Industry	28,4	11,5	13,0	9,1	37,9	47,0
Construction	22,2	11,8	9,8	7,2	49,0	56,2
Services	29,2	12,1	12,4	8,8	37,5	46,3
16 to 24	32,5	10,5	12,5	6,2	38,2	44,4
25 to 34	27,3	13,5	13,5	9,5	36,1	45,6
34 to 44	27,7	11,5	12,4	8,9	39,4	48,3
44 to 54	32,4	8,0	9,2	6,7	43,8	50,5
55 and more	40,4	4,9	6,0	7,7	41,0	48,7
Permanent contract	34,4	12,5	12,5	8,6	35,0	43,6
Temporary contract	20,0	9,5	12,1	9,2	49,2	58,4
Primary education	25,9	5,9	7,5	3,9	56,9	60,8
Secondary education	29,0	7,3	8,2	6,5	49,0	55,5
University studies	30,8	16,8	14,6	9,3	28,6	37,9
Partner 's principal activity						
a) employed with permanent contract	30,6	11,5	13,1	8,7	36,1	44,8
b) employed with temporary contract	25,7	10,6	12,4	10,7	40,6	51,3
c) self-employed	29,8	12,8	13,6	5,1	38,8	43,9
d) unemployed	24,0	10,5	14,9	8,8	41,9	50,7
e) housework	30,1	8,7	9,2	8,5	43,4	51,9

*Subjective insecurity index = Fully agree + agree with I worry about my job security

The degree of insecurity is also higher for construction and agriculture workers, both sectors with a high incidence of temporary jobs. Last, the insecurity index seems also to be related with the partner main economic activity, as those with a partner with permanent contract show a lower insecurity index than those with a partner either unemployed, on temporary contract or inactive (housework).

4. Determinants of subjective job insecurity in Europe.

As shown above, there are enough descriptive bases to consider that subjective insecurity (SI) is a function of the aforementioned variables, namely: gender, sector, age, type of contract, level of education, partner's activity. In order to test so, we have estimated probit regressions for each country in the search of two things: the marginal impact of those variables in the probability of a worker being worried about his/her job security; and the proportion of such a probability that can be explained by variables regarding individual characteristics. We have made estimations for Belgium, Holland, Spain, Finland and Germany using 2005 woliweb data set.

As dependent variable in the probit regression we used a dummy that takes value 1 when respondents agree or fully agree with the statement: *I worry about my job insecurity*. It takes value 0 otherwise. We estimate probits for five countries and report coefficients, significance levels and R-squares in table 4.1. We also estimated a regression including every country.

The following conclusions can be obtained. Firstly, the regression always displays very low R squares, it hardly explain five percent of the probability of a worker being worry about his/her job security. There are still a lot of unidentified variables affecting SI. However, within each country regression, there are variables that have an influence on the dependent variable. Coefficients in table 3.4 can be interpreted as the marginal effect of each variable in the aforementioned probability.

Table 4.1 Marginal effects of different characteristics of the worker on the probability of being worried about his/her job insecurity

	Belgium	Holland	Spain	Finland	Germany	All the countries
Gender (woman)	0,017 (1,30)	0,007 (1,18)	0,032 (1,70)**	-0,017 (-0,77)	0,014 (0,14)	0,007 (0,73)
Agriculture	0,138 (1,15)	0,021 (0,95)	0,292 (2,89)	n.a	n.a	0,233 (2,97)*
Industry	0,065 (4,64)*	0,020 (2,7)*	0,027 (1,18)	0,024 (0,98)	n.a	0,031 (2,84)*
Construction	-0,017 (-0,30)	0,041 (1,00)	0,062 (1,19)	0,016 (0,10)	n.a	0,059 (1,55)
Age 16 to 24	0,036 (1,06)	-0,008 (-0,74)	-0,108 (-1,67)**	-0,066 (-1,49)	-,032 (-0,08)	-0,044 (-1,80)**
34 to 44	0,009 (0,62)	0,057 (7,06)*	0,026 (1,18)	0,068 (2,34)*	0,088 (0,79)	0,041 (3,48)*
44 to 54	-0,006 (-0,38)	0,115 (11,58)*	0,043 (1,53)	0,098 (2,84)*	0,065 (0,55)	0,035 (2,47)*
55 and more	-0,006 (-0,21)	0,072 (4,16)*	0,006 (0,12)	-0,061 (-1,20)	-0,069 (-0,36)	-0,022 (-0,94)
Permanent contract	-0,267 (-8,93)*	-0,245 (-27,99)*	-0,228 (-9,47)*	-0,410 (-12,44)	-0,044 (-0,029)	-0,313 (-19,51)*
University education	-0,057 (-4,54)*	-0,067 (-6,40)*	-0,150 (-8,68)*	0,007 (0,25)	-0,094 (-1,01)	-0,082 (-8,84)*
Have children	0,019 (1,22)	-0,006 (-0,87)	0,287 (1,37)	-0,064 (-2,40)	0,001 (0,02)	-0,020 (-1,84)**
Partner's situation:						
Temporary contract	0,018 (0,71)	0,005 (0,50)	0,036 (1,49)	0,028 (0,81)	-0,281 (-1,92)**	0,059 (3,78)*
Self employed	0,102 (3,83)*	-0,029 (-2,38)*	0,012 (0,39)	-0,053 (-1,32)	0,195 (1,00)	0,052 (2,89)*
Unemployed	0,071 (2,53)*	0,077 (4,89)*	0,039 (1,13)	0,131 (2,59)*	0,097 (0,58)	0,082 (4,03)*
In education	-0,097 (-1,88)**	0,008 (0,44)	0,007 (0,11)	-0,074 (-1,43)	0,299 (0,93)	-0,055 (-1,69)**
Retired	0,064 (1,18)	-0,009 (-0,24)	-0,028 (-0,26)	-0,69 (-1,04)	-0,137 (-0,48)	-0,016 (-0,42)
Housework	0,001 (0,04)	0,008 (0,78)	0,063 (2,07)*	-0,027 (-0,39)	-0,062 (-0,53)	0,078 (3,87)*
Disabled, ill	0,07 (2,14)*	0,05 (2,99)*	0,092 (0,78)	-0,029 (-0,27)	0,057 (0,23)	0,006 (0,16)
R ²	0,025	0,033	0,042	0,071	0,05	0,04

Control group: A man working in the service sector, between 25 and 34 years old, with children, working with a temporary contract, without University education whose partner is working with a permanent contract.

* Statistically significant at 95 %, ** statistically significant at 90 %.

Source: Authors analysis from Woliweb data set.

Secondly, although there is a high level of diversity of temporary employment and duration of temporary contracts among sample countries, there are several individual characteristics having a similar impact on SI in every country. For example, to have a permanent contract and University education are significant and have a negative impact in the dependent variable in every country but Germany. Furthermore,

the effect of the type of contract is always very strong which confirm the relationship between subjective and objective job insecurity. On the contrary, to have an unemployed partner has a positive effect and is significant in every country but Germany and Spain. Checking country by country, we can find for example, that in Belgium and Holland those working in the industry sector have more probabilities of being worried about their job insecurity with respect to those working in the service sector. As could be predicted by the former descriptive analysis, age does not have any impact in most of the countries, however, in Holland, those more than 34 years old have more probabilities of being worried, maybe because they have more to loose than younger workers.

In the latter specification we also estimate an augmented specification introducing country dummies aiming to grasp country specific effects. In other words, we test if, in future specifications, it makes sense to introduce labour market country specific variables/features and variables regarding economic performance such as unemployment level or labour market flows. We found that the country dummy variables introduced in the regression including data from every country were always significant. In this last regression we took Spain as control group and found that not being Spanish has a negative impact in SI. Therefore, country specific characteristics have explanatory power. However, the R^2 did not increase in that regression (0,0544).

Summarizing, although some of the introduced variables, such as type of contract and level of education, are significant in almost every country, there are a lot factors to explain why a worker is worry about his/her job security that are not identified in this model. Whatever explain why a worker feels insecure in his/her job might be of a much more complex nature than gender, age, sector, country specific variables and so on. It seems that the factors behind subjective insecurity are of many different kinds. There are probably psychological factors which are difficult to identify in a questionnaire. Generalized optimism or pessimism in each country or region, due to some labour market characteristics, might be also important. There is a need for the development of theoretical basis to build a better model to explain subjective job insecurity. Such a development should include inter disciplinary reviews.

5. Wellbeing implications of temporary contracts.

5.1 Temporary contracts and wages

There is a lot of literature regarding the effects of temporary contracts on wages. They all coincide in that they have a negative impact on wages. We have run salary regressions, using 2005 Woliweb data, accounting for age, number of years in the current position, firm size, region, level of education, sector of activity and type of contract. In table 5.1 we report the coefficients temporary contracts coefficients. Its effect is always negative and significant⁶. Therefore, it can be concluded that having a temporary contract has a negative and strong impact on salaries. In the following section we explore if there is also a common pattern in the consequences that a temporary contract has in lifestyle and future employment options using also the Woliweb data set.

5.1 Effect of temporary contract in conventional salary regressions

Country	Coefficient	t	R ²
Germany	-0,265	(-31,031)	0,32
Belgium	-0,127	(-6,818)	0,29
Spain	-0,191	(-12,052)	0,35
Finland	-0,191	(-9,171)	0,36
Netherlands	-0,147	(-20,150)	0,42
United Kingdom	0,192	(-7,532)	0,30

5.2 Temporary contracts, lifestyles and future employment options.

In this section we will explore the implication of having a temporary job on personal lifestyles and the future working chances of temporary workers from a subjective point of view. That is, at this stage we will not explore this issue from a factual point of view, what we will do is to analyze to what extend, and in what direction, temporary workers think having a temporary contract affects their life styles and future work careers.

A good starting point is to explore the extent to which temporary employment is a matter of choice, or something imposed by the circumstances of the labour market. In

⁶ The full regressions are not reported in this paper. These regressions are available on request from the authors.

this respect, as shown in the first line corresponding to each country in table 5.1, a majority of workers in almost all the countries of the sample coincide in that they have temporary contract because they could not find alternative permanent jobs. Thus, we can say for most workers having a temporary contract is not a matter of choice. This result can be interpreted as a clear indication that workers in general consider they are better off with a permanent contract, something otherwise quite logical as a permanent contract can be unilaterally broken by the worker if he/she finds a better job, but at the same time it gives the worker a higher sense of security than a fix term contract. In fact, as we will see further on, although the implications of temporary work are very different between countries, in this respect, all workers seem to agree: the coefficient of variation of the proportion of workers that were working on temporary contract due to the lack of permanent jobs is only 0,187(table 5.2).

Along with the question about the reason of having a temporary job, table 5.1 reproduces the opinion of temporary workers in relation to six different questions dealing with the personal implication of having a temporary contract: whether it affects the chances of emancipating from their parents and having children; its financial implication in terms of whether it reduces the chances of buying a house and building up pensions rights, and last, whether they consider it can affect positively their future career increasing their skills, allowing them to build work experience and as a method of search for a better employer.

With the aim of presenting the information reproduced in table 4.1 in a more synthetic way, table 5.2 reproduces the percentage of temporal workers agreeing and fully agreeing to the different statements afore mentioned.

Table 5.2. Implication of temporary work

		Fully Disagree	Disagree	Neutral	Agree	Fully Agree
Spain	Is the only option	11,4	6,8	13,4	16,9	51,4
	Force me to stay with my parents	38,8	6,9	8,9	9,7	35,6
	Force me to postpone having children	23,5	4,7	7,5	9,8	54,5
	Restricts pension	7,5	9	7,5	22,4	53,7
	Restricts buying a house	9,7	1,4	2,8	6,9	79,2
	Opportunity to look for the best employer	36,6	12,9	17,6	11,1	21,7
	Increases my skills	52,9	8,8	19,1	7,4	11,8
	Builds work experience	24,6	8,7	20,3	18,8	27,5
	Is the only option	31,4	11,5	15,1	15,0	27,0
	Force me to stay with my parents	62,63	11,46	8,26	6,92	10,73
	Force me to postpone having children	50,9	11,4	10,9	10,4	16,4
	Restricts pension	20,3	14,4	19,8	16,4	29,1
NL	Restricts buying a house	19,0	9,6	11,7	14,9	44,75
	Opportunity to look for the best employer	26,8	16,2	23,9	16,2	16,9
	Increases my skills	23,7	14,3	20,7	20,4	20,9
	Builds work experience	14,7	8,7	17,9	27,7	31,0
UK	Is the only option	n.a.	n.a.	n.a.	n.a.	n.a.
	Force me to stay with my parents	n.a.	n.a.	n.a.	n.a.	n.a.
	Force me to postpone having children	n.a.	n.a.	n.a.	n.a.	n.a.
	Restricts pension	21,9	9,4	15,6	9,4	43,8
	Restricts buying a house	22,6	16,1	19,4	16,1	25,8
	Opportunity to look for the best employer	n.a.	n.a.	n.a.	n.a.	n.a.
	Increases my skills	31,4	14,3	14,3	17,1	22,9
	Builds work experience	17,1	8,6	11,4	28,6	34,3
	Is the only option	22,2	11,1	n.a.	n.a.	66,7
Germany	Force me to stay with my parents	88,9	n.a	n.a.	n.a.	11,1
	Force me to postpone having children	70,0	20,0	n.a.	n.a.	10,0
	Restricts pension	29,2	8,3	25,0	29,2	8,3
	Restricts buying a house	33,3	4,8	14,3	33,3	14,3
	Opportunity to look for the best employer	28,6	57,1	n.a.	n.a.	14,3
	Increases my skills	32,4	2,7	27,0	21,6	16,2
	Builds work experience	31,8	4,5	31,8	22,7	9,1
		Is the only option	27,3	9,0	15,5	14,9	33,3
Belgium	Force me to stay with my parents	61,6	8,9	7,8	7,8	13,9
	Force me to postpone having children	46,0	7,7	11,6	12,3	22,5
	Restricts pension	22,5	12,5	21,8	15,3	27,8
	Restricts buying a house	18,1	6,8	11,8	12,4	50,9
	Opportunity to look for the best employer	21,5	12,5	27,3	19,0	19,8
	Increases my skills	21,4	11,8	19,3	19,0	28,5
	Builds work experience	11,4	6,3	17,4	23,1	41,8
		Is the only option	19,7	11,3	17,3	19,5	32,2
Finland	Force me to stay with my parents	87,8	4,1	2,9	2,0	3,2
	Force me to postpone having children	53,1	7,7	7,0	14,3	17,9
	Restricts pension	10,3	15,3	28,4	19,4	26,6
	Restricts buying a house	21,5	8,2	11,0	14,3	44,9
	Opportunity to look for the best employer	23,7	17,0	23,7	17,6	18,0
	Increases my skills	23,1	16,3	25,0	17,7	17,9
	Builds work experience	8,2	3,3	16,0	31,3	41,2

Considering the higher percentages as the most widespread opinion in each country the following conclusions can be found. Firstly, most of temporary workers in the sample countries consider that having a temporary contract restrict them from buying a house. This is especially important in Spain where temporary employment is very high and house prices are also very high. As a consequence, Spaniards also consider that temporary employment force them to stay with their parents and postpone having children. On the contrary, Germans, Finish and Dutch do not consider that temporary employment force them to stay with their parents, however, they agree with Spaniards in that this kind of contract restricts buying a house.

In Spain, Holland and United Kingdom workers consider that it is important for their future pension. Last workers from Holland, United Kingdom and Belgium and Finland consider that temporary contracts help them to build work experience as it is one of the statements most commonly chosen.

Table 5.3 Proportion of workers agreeing and fully agreeing to the statement: “having a temporary job

	Spain	NL	UK	Germany	Belgium	Finland	CV
Force me to stay with my parents	45,3	17,7	---	11,1	21,7	5,2	0,682
Force me to postpone having children	64,3	26,8	---	10,0	34,8	32,2	0,524
Restricts pension	76,1	45,5	53,1	37,5	43,2	46,0	0,248
Restricts buying a house	86,1	59,7	41,9	47,6	63,3	59,3	0,234
Opportunity to look for the best employer	32,8	33,1	---	14,3	38,8	35,6	0,278
Increases my skills	19,2	41,3	40,0	37,8	47,5	35,6	0,237
Builds work experience	46,3	58,7	62,9	31,8	64,9	72,5	0,239
Is the only option	68,3	42,0	---	66,7	48,2	51,7	0,187

6. Conclusions

In the first section we showed the importance of job security, firstly, from the perspective of workers that consider job security the most important feature of a good job. Secondly, from an aggregated and objective perspective: the increase of temporary contract in the last decades. As a result, we approach the issue from its double perspective, the subjective and the objective one, and show two respective ways measure them.

After showing the importance and measurement of objective and subjective job insecurity, we go a step further and look for their relationship. We show that both measures are related but the relationship is far from being tight and there is (subjective) insecurity beyond temporary contracts. As a consequence, we search for other variables playing a role in subjective job insecurity including temporary contract as one of the explanatory variables. We find that the type of contract is always significant and that there are several personal characteristics, such as education and partner's activity, that play a similar role in almost every country. However, our model only explains five percent of subjective job insecurity. Introducing country dummies in a common regression, we found that country specific characteristics are significant. However the introduction of country dummies do not increase adjusted R^2 . We call the attention on this finding and establish the basis for its future research: in the search for a model to explain subjective job insecurity the development of interdisciplinary theoretical basis shall be needed.

Finally, we explore the consequences of objective job insecurity. In accordance with former studies regarding the effect of temporary contracts on salaries, we corroborate, using 2005 Woliweb data and national LFS, that temporary contracts have a negative impact on salaries. We find that temporary contracts consequences in lifestyles do not follow a clear international pattern but are consequent with each country economic reality.

Appendix I.

Proportion of workers who worry about their job security
according to different characteristics. 2005: Finland, Germany,
Netherlands, Belgium

FINLAND	Fully disagree	Disagree	Neutral	Agree	Fully agree	Subjective insecurity index*
Total	24,4	21,9	14,1	15,2	24,4	39,6
Male	23,8	22,4	15,2	16,6	21,9	38,5
Female	24,7	21,5	13,5	14,3	26,0	40,3
Agriculture						
Industry	21,4	23,0	15,3	16,4	23,8	40,2
Construction	25,0	12,5	25,0		37,5	37,5
Services	25,3	21,3	13,7	14,9	24,7	39,6
16 to 24	22,5	21,6	11,6	17,6	26,7	44,3
25 to 34	22,0	22,6	15,6	17,1	22,7	39,8
34 to 44	24,4	22,2	13,2	14,2	25,3	39,5
44 to 54	24,7	21,4	14,4	13,0	26,5	39,5
55 and more	39,2	18,9	13,1	8,1	20,7	28,8
Permanent contract	27,5	24,0	14,9	15,0	18,5	33,5
Temporary contract	7,7	11,6	10,4	15,4	54,8	70,2
Primary education	31,8	15,9	20,5	9,1	22,7	31,8
Secondary education	22,0	22,4	13,2	13,9	28,5	42,4
University studies	24,7	23,4	14,7	15,7	21,5	37,2
Partner's principal activity						
a) employed with permanent contract	24,2	23,3	14,7	13,7	24,1	37,8
b) employed with temporary contract	21,9	22,7	11,5	22,3	21,6	43,9
c) self-employed	31,1	20,2	13,7	14,2	20,8	35,0
d) unemployed	19,5	17,8	12,7	20,3	29,7	50,0
e) housework	23,9	23,9	14,1	14,1	23,9	38,0

GERMANY	Fully disagree	Disagree	Neutral	Agree	Fully agree	Subjective insecurity index*
Total	30,1	19,9	15,6	11,8	22,7	34,5
Male	30,0	20,8	15,8	12,3	21,2	33,5
Female	30,4	17,8	14,9	10,7	26,2	36,9
Agriculture	n.a	n.a	n.a	n.a	n.a	n.a
Industry	n.a	n.a	n.a	n.a	n.a	n.a
Construction	n.a	n.a	n.a	n.a	n.a	n.a
Services	n.a	n.a	n.a	n.a	n.a	n.a
16 to 24	36,2	18,3	13,7	10,1	21,7	13,5
25 to 34	32,4	22,5	15,9	11,3	17,8	29,1
34 to 44	26,7	19,7	16,6	12,7	24,3	37,0
44 to 54	26,4	16,6	14,6	12,3	30,1	42,4
55 and more	43,9	13,5	9,8	8,7	24,0	32,7
Permanent contract	32,2	20,6	15,7	11,9	20,7	32,6
Temporary contract	23,7	16,1	14,9	11,6	33,7	45,3
Primary education	33,2	11,9	12,9	8,6	33,4	42,0
Secondary education	29,3	16,0	15,5	11,2	29,5	40,7
University studies	31,1	24,2	16,6	12,1	16,0	28,1

NETHERLANDS	Fully disagree	Disagree	Neutral	Agree	Fully agree	Subjective insecurity index*
Total	36,7	19,4	14,5	10,8	18,6	29,4
Male	30,0	20,8	15,8	12,3	21,2	33,5
Female	30,4	17,8	14,9	10,7	26,2	36,9
Agriculture	40,4	17,4	14,9	9,6	17,6	27,2
Industry	34,7	19,1	15,5	10,9	19,8	30,7
Construction	26,0	19,3	22,9	12,0	19,8	31,8
Services	36,9	19,4	14,2	10,9	18,6	29,5
16 to 24	34,7	21,5	15,4	11,5	16,9	13,5
25 to 34	37,3	21,1	14,6	10,5	16,5	27,0
34 to 44	37,3	18,1	14,4	10,7	19,5	30,2
44 to 54	34,9	16,3	13,7	10,9	24,2	35,1
55 and more	43,9	12,7	11,5	9,0	22,8	31,8
Permanent contract	22,0	17,4	16,3	14,0	30,3	44,3
Temporary contract	40,5	20,1	13,9	9,9	15,6	25,5
Primary education	37,1	11,9	13,5	8,9	28,7	37,6
Secondary education	37,9	15,6	13,6	10,3	22,6	32,9
University studies	36,6	25,9	14,0	10,6	12,9	23,5
Partner's principal activity						
a) employed with permanent contract	38,5	18,7	14,5	10,4	17,8	28,2
b) employed with temporary contract	33,5	21,0	15,6	11,9	18,0	29,9
c) self-employed	41,5	19,0	13,4	9,4	16,8	26,2
d) unemployed	29,4	17,4	14,9	12,5	25,8	38,3
e) housework	37,4	18,3	13,9	10,4	20,0	30,4

BELGIUM	Fully disagree	Disagree	Neutral	Agree	Fully agree	Subjective insecurity index*
Total	36,0	19,5	15,3	10,3	18,9	29,2
Male	35,7	20,5	15,6	10,9	17,3	28,2
Female	36,4	17,9	14,7	9,3	21,6	30,9
Agriculture	45,5	9,1	4,5	9,1	31,8	40,9
Industry	28,4	20,0	18,7	10,8	22,0	32,8
Construction	36,8	26,4	10,3	11,5	14,9	26,4
Services	39,0	19,0	13,8	10,3	17,8	28,1
16 to 24	32,3	20,1	15,2	12,8	19,6	32,4
25 to 34	33,8	21,4	16,8	10,4	17,7	28,1
34 to 44	35,4	19,6	15,6	10,6	18,8	29,4
44 to 54	39,4	16,9	13,6	9,6	20,5	30,1
55 and more	50,6	12,5	8,1	6,0	22,9	28,9
Permanent contract	37,4	20,1	15,1	10,0	17,4	27,4
Temporary contract	19,7	11,7	16,9	13,2	38,5	51,7
Primary education	28,1	12,4	16,9	7,9	34,8	42,7
Secondary education	35,5	20,6	16,8	10,5	16,5	27,0
University studies	35,0	24,5	15,8	12,0	12,7	24,7
Partner's principal activity						
a) employed with permanent contract	37,3	20,6	15,3	9,8	17,1	26,9
b) employed with temporary contract	34,9	18,1	16,3	9,5	21,1	30,6
c) self-employed	34,3	16,1	13,6	14,6	21,4	36,0
d) unemployed	31,0	14,2	17,4	8,4	29,0	37,4
e) housework	39,2	20,4	13,4	9,4	17,6	27,0