Childbearing Intentions and Economic Uncertainty in Contemporary Europe

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Abstract: This paper examines the interplay between societal economic conditions, individual economic uncertainty and short-term childbearing intentions in ten European countries representing different welfare regimes. Using data from the European Social Survey (2004/05 and 2010/11), we study i) aggregated short-term childbearing intentions of childless men and women, and of one-child parents in relation to changes in unemployment and employment protection and ii) the micro-level association between childbearing intentions and perceived economic uncertainty. Our results indicate a linkage between economic uncertainty in the society and people's short-term childbearing intentions across welfare states, but this relationship varies by gender, age and parity. The micro-level analysis indicates that perceived economic security is an important factor for childbearing plans, however this vary by gender, age, parenthood status and institutional context.

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Introduction

This study examines the interplay between societal economic conditions, individual economic uncertainty and men and women's short-term childbearing intentions in ten European countries, representing different institutional contexts regarding work-family reconciliation policies and fertility regimes. Since the 1980s fertility rates declined substantially in Europe, especially in the Mediterranean, in German speaking countries and in Central Eastern Europe. Hence, policy makers in contemporary Europe are increasingly concerned with demographic sustainability given aging population and low fertility.

Studying childbearing intentions can provide us with a better understanding of fertility behaviour, as intentions are strongly associated with subsequent fertility e.g. Morgan 2001; Morgan and Rackin 2010; Philipov 2009a; Quesnel-Vallée and Morgan 2003; Schoen et al. 1999; Thomson 1997; Thomson and Hoem 1998). Intentions are a central component for understanding fertility trends (Hagewen and Morgan 2005). However, it is important to note that childbearing intentions should not be confounded with childbearing preferences. Preferences most often revolve around *ideal family size* and the *number of children one would like to have*, which reflects social norms (Hagewen and Morgan 2005; Livi-Bacci 2001) irrespective of the possibilities for actualising the ideal family size. Childbearing intentions more directly relate to whether a person *intends*, *plans* or *expects* to have a(nother) child (Hagewen and Morgan 2005; Philipov et al. 2006; Thomson 1997). When asked about childbearing intentions, people take into account their current life situation, including economic situation and aspirations. Consequently childbearing intentions reflect opportunities as well as constraints (Heiland et al. 2005; Morgan and Rackin 2010). Short-term intentions reflect the perception of effective options and are therefore related to the sense of risk and security with respect to present situation and future prospects (Fahlén 2013). Hence, economic situation is an important factor not only for people's economic well-being, but also in relation to childbearing trends, as economic uncertainties can constrain men and women's childbearing plans (Kotowska et al. 2010).

The idea that economic security is a precondition for having children is deeply embedded in theories on fertility (Hobcraft and Kiernan 1995). Yet, the existing empirical evidence on the interplay between economic security and fertility is inconsistent (see Matysiak and Vignoli 2010), and research on economic uncertainty and childbearing intentions have just recently received attentions among scholars (as exception see e.g. Oláh and Fratczak 2013), yet less so in a European comparative perspective. Our study seeks to

contribute to the literature on how intentions are shaped, and to provide deeper insight in the mechanisms of fertility intentions and childbearing in different institutional contexts.

The main question we address is whether *economic uncertainty affects people's ability to plan for a family?* We focus on changes in unemployment and employment protection legislation around 2004 and 2011. We analyse their impact, if any, on aggregated short-term childbearing intentions in ten European countries. Moreover, we study related mechanisms also at the individual level to explore i) to what extent are women's and men's short-term childbearing intentions associated with their perceived job and income insecurity, ii) whether this has changed between 2004 and 2011, and iii) whether these factors influence childless men and women's and one-child parents' fertility intentions differently.

The first section in this paper we discuss out theoretical framework, followed by previous research regarding economic uncertainty and childbearing. The third section discusses the institutional context and structural conditions around the years 2004 and 2011, with special focus welfare state figurations in terms of work-family reconciliation policies, trends in total fertility rates (TFR) and female labour force participation, unemployment, and employment protection legislation. In the final section we present the results from i) a descriptive analysis, ii) aggregate analysis of societal changes and childbearing intentions around the years 2004 and 2011, and iii) the individual level analysis of the impact of perceived economic uncertainty among childless women and men, and one-child parents.

The theoretical framework

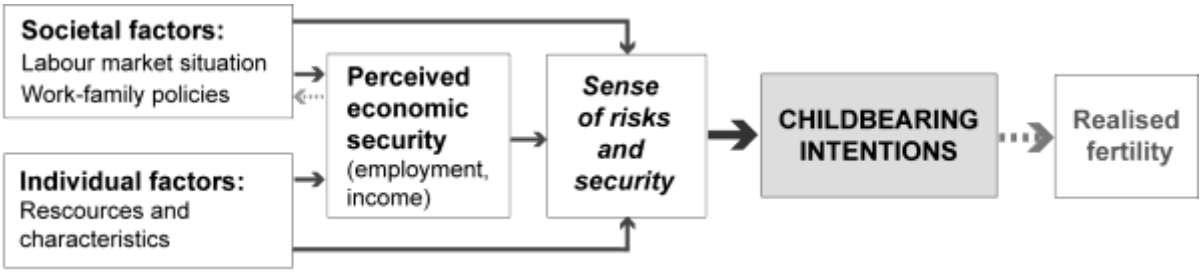
According to Philipov and Bernardi (2012), a theoretical framework well suited for analysing short-term childbearing intentions is the socio-psychological *theory of planned behaviour* (TPB) (Ajzen, 1991; Ajzen and Fishbein, 2005). This framework have been increasingly utilised in demographic studies addressing the role of intentions as a key issue in the behavioural decision-making process (Philipov, 2009b; also see Billari and others, 2009 for an overview of earlier studies). In this framework, intentions are a motivation to act. Strong intentions increase the probability that people realise their intentions. In turn, intentions are influenced by individual characteristics, attitudes and norms and *perceived behavioural control,* suggesting that not only available means and resources, but also a person's subjective ability to act, based on perceived obstacles and constraints, is an important factor (Ajzen 1991; Ajzen and Fishbein 2005).

When studying short-term childbearing intentions in a cross-national comparative perspective, the TPB fails to take into account that perceived behavioural control and the

processes shaping short-childbearing intentions can be institutionally embedded. By applying a multi-dimensional framework and expanding the TPB with an institutional framework, in regard to societal economic uncertainty and work-family reconciliation policies, we seek to provide deeper insights into interplay of individual life situations and institutional factors that shape people's perceived behavioural control, which in turn can affect people's sense of risk and security regarding the present situation and future prospects.

In our theoretical framework (see Figure 1), we argue that *individual factors* (educational attainment and other characteristics), *societal factors* (e.g. work-family reconciliation policies and labour market situation) and *perceived economic security* (job security, income security) influences people's sense of risk and security, based on which childbearing intentions are formed, and in a longer run birth will be realised or postponed (perhaps foregone). For instance, *societal factors* can strengthen or weaken people's capabilities to be both earners and carers, and diminish the sense of risk and security in regard to the present situation and future prospects. This in turn influences people's short-term childbearing intentions. In addition, whether one's job and income are perceived as secure clearly are connected to the sense of risk and security regarding the present situation and future prospects. The sense of risk and security can therefore be seen as influenced by societal factors, individual factors and perceived economic security which in turn shape people's short-term childbearing intentions (see also Fahlén 2013; Fahlén and Oláh 2013).

Figure 1. Theoretical model for assessing short-term childbearing intentions.



Relying on this theoretical model (see Figure 1) we will study differences in men and women's capabilities to start and extend their family in contemporary Europe, as reflected in their short-term childbearing intentions, with respect to societal economic uncertainty and subjectively perceived job security and economic security.

Economic uncertainty and childbearing

The idea that economic security, in terms of employment and income, is a precondition for having children is deeply embedded in theories related to fertility (e.g. Brewster and Rindfuss 2000; Hobcraft and Kiernan 1995; McDonald 2002). However, the relationship between women's labour market participation and fertility is complex, and existing empirical evidence regarding economic security, in terms of employment and income, and fertility is inconsistent, partly because of varying institutional contexts and the use of different measures and methods (see Adsera 2005a; Adsera 2011; Andersson 2000; Andersson and Scott 2005; Andersson et al. 2009; Billingsley 2011; De la Rica and Iza 2005; Kravdal 1994; Kravdal 2002; Kreyenfeld 2005; Kreyenfeld 2010; Matysiak and Vignoli 2010; Özcan et al. 2010; Pailhé and Solaz 2012; Santarelli 2011; Vignoli et al. 2012; Vikat 2004). For instance, Adsera (2005a; 2011) have found that higher gender gap in aggregated unemployment delay the transition to motherhood and to further birth across Europe. Other studies have found that women's income is positively associated with the transition to motherhood in Sweden, Denmark, Finland (Andersson 2000; Andersson et al. 2009, Vikat 2004), but not in West Germany (Andersson et al. 2009), Norway (Kravdal 2002). Vignoli et al. (2012) and (Santarelli 2011) have found that a permanent employment for both partners in Italy is associated with higher fertility, while less stable employment depress fertility. However, Santarelli (2011) also found that working women in Italy have lower first birth rates than non-working women. De la Rica and Iza (2005) have found that women in Spain who holds fixed-term contract delay their entry into motherhood. Kreyenfeld (2005; 2010) finds no clear indication that economic uncertainty leads to a postponement of parenthood in Germany, yet she finds that highly educated women tend to postpone the transition to motherhood when unemployed or if that perceive their economic situation as insecure. Pailhé and Solaz (2012) have found that male unemployment in France delay the transition to fatherhood, and that periods of insecure employment delay this transition for women. In addition, previous research also suggests that economic uncertainty do not affect both gender's fertility in the same way (Kreyenfeld 2005; Schmitt 2012; Tölke and Diewald 2003).

Research regarding economic uncertainty and childbearing intentions is still not sufficiently explored, though some studies have addressed this issue. For instance, Berninger et al. (2011), studying intentions in Germany, find a direct effect of income and an indirect effect of job security satisfaction on childbearing intentions, whereas for women no direct and only a weak indirect impact of precarious work could be observed. A recently published book (Oláh and Fratczak 2013) addresses the tensions between work and welfare and investigates

the association between insecure labour force attachment and childbearing intentions in five different European countries with different work-life balance policies. The results from the different studies show that childbearing choices are related to uncertainty and risk and the incoherence effect in terms of women's and men's equal access to education and employment but unequal share of domestic responsibilities. However the studies in this book is based on separate country analysis, using somewhat different approaches, methods and data. To more clearly understand the linkage between the institutional context, economic uncertainty and childbearing intentions, more cross-national comparative studies are needed which take into account variations in family policies and prevailing gender norms. In a European comparative study, Fahlén (2013) finds an interaction between employment status and education in regard to first child intentions, with different outcome across ten European countries, and that perceived economic uncertainty have a negative impact on childless women's and mothers' intentions. This association is most salient among women with lower education living in countries with weaker work-family reconciliation policies.

Institutional contexts: work-family reconciliation policies and labour market conditions

Fertility variations across Europe have been attributed to variations in women's abilities to reconcile employment with having a family. However, given the fact that most women, and men, in European societies will enter the labour market and try to obtain a stable and secure position before realizing their childbearing plans (see De Henau et al. 2010), societal economic security and the possibilities to combine work and parenthood are important dimensions in assessing childbearing intentions. Yet, countries vary in the way that work-care nexus is institutionalised in terms of social policies (e.g. Korpi, 2000; Lewis, 1992; Orloff, 1993) and labour market arrangements (Esping-Andersen 1999). This section discusses features and changes in work-family policies and labour market conditions in ten European countries around the years 2004 and 2011.[3] The countries selected in this study represent different welfare regimes (Esping-Andersen, 1990; Korpi, 2000)[4] and fertility regimes (Kohler, Billari and Ortega, 2002).

In this study, the UK represents the *Market Oriented model* (Korpi 2000). This model has fairly low institutional support for work-family reconciliation (Gornick et al. 1997),

[3] The years are selected to correspond to the survey year of the European Social Survey used in the analysis.

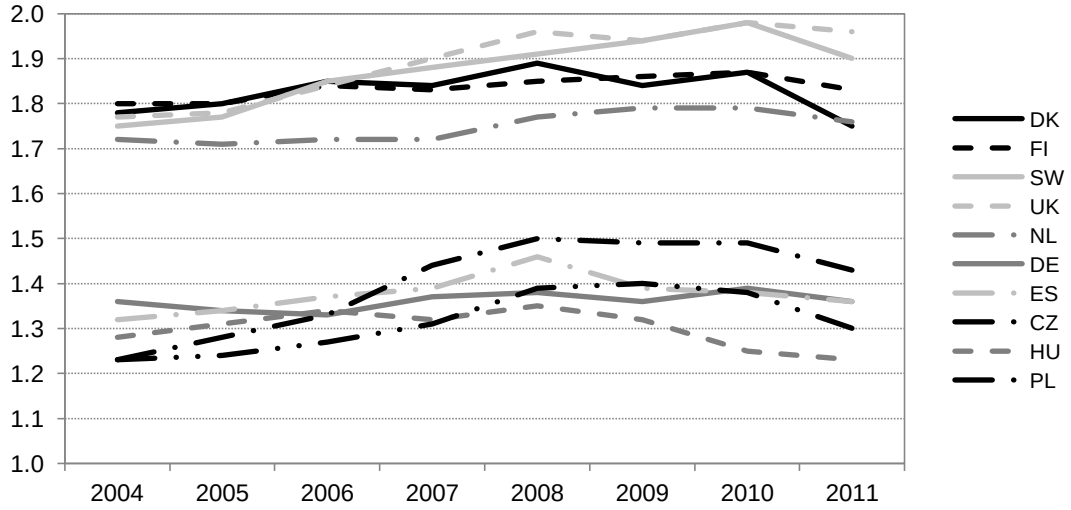
[4] The conventional welfare regime typology (Esping-Andersen 1990) has been challenged on many fronts, especially its lack of gender dimensions (e.g. Lewis 1992; Orloff 1993), and the need for a distinct Mediterranean model (Ferrera 1996). Although Korpi's (2000) typology incorporates policies that affect women's ability to combine motherhood and employment, it assumes policies prior to the 2000s and do not include the post-socialist countries which do not fit neatly into conventional typologies (Hobson and Oláh 2006).

reflected in the comparatively low maternal employment rates for mothers of pre-schoolers (OECD 2012), and relatively low proportion of young children in formal childcare (Plantenga and Remery 2009). Denmark, Finland and Sweden represent *Dual Earner model* (Korpi 2000), with strong institutional support for work-family reconciliation (Gornick et al. 1997) and highly subsidised childcare (Plantenga and Remery 2009).Germany and the Netherlands represent *General Family Support model* (Korpi 2000), where the institutional support for maternal employment is relatively modest (Gornick et al. 1997). Childcare provisions are rather underdeveloped, especially for the youngest children and on full-time basis (Plantenga and Remery 2009). In addition, the cost of childcare have increased between the years 2004 and 2011 (OECD 2011; 2013a). Spain represents the *Southern model,* with strong familialism and weak institutional support for working mothers (Ferrera 1996). The childcare enrolment rate of younger children is fairly low (Plantenga and Remery 2009) and relatively expensive (OECD 2011; 2013a) which correspond to a relatively low employment rate for mothers of a pre-schooler (OECD 2010). Three Central East European (CEE) countries, the Czech Republic, Hungary and Poland, represent the *Post-Socialist countries* with institutions that simultaneously preserve a gendered division of labour and dual-earner families (Ferrarini 2006; Ferrarini and Sjöberg 2010).

Fertility trends 2004-2011

In 2004, Denmark, Finland, Sweden, the Netherlands and the UK was classified as *low fertility regimes* with a total fertility rate (TFR) below replacement level (2.1) but higher than 1.5 children per woman. Germany and Spain was defined as *very low fertility regimes*, with a TFR of 1.3-1.5. The Czech Republic, Hungary and Poland were regarded as *lowest low fertility regimes* with a TFR below 1.3 (Figure 2). Between 2004 and 2011 we can observe some fluctuation in fertility rates. Around 2007, the fertility rates increased slightly in all countries. By 2011, this trend had flattened out or reversed in most of the countries (Figure 2). The major changes related to the fertility regime classification are that, by 2011, Hungary and Poland have moved from *lowest low fertility* to *very low fertility.*

Figure 2. Total fertility rates in ten European countries, 2004-2011.



Note: Abbreviations: Denmark (DK), Finland (FI), Sweden (SW), Germany (DE), the Netherlands (NL), the United Kingdom (UK), Spain (ES), the Czech Republic (CZ), Hungary (HU), and Poland (PL).
Source: Eurostat (2013a).

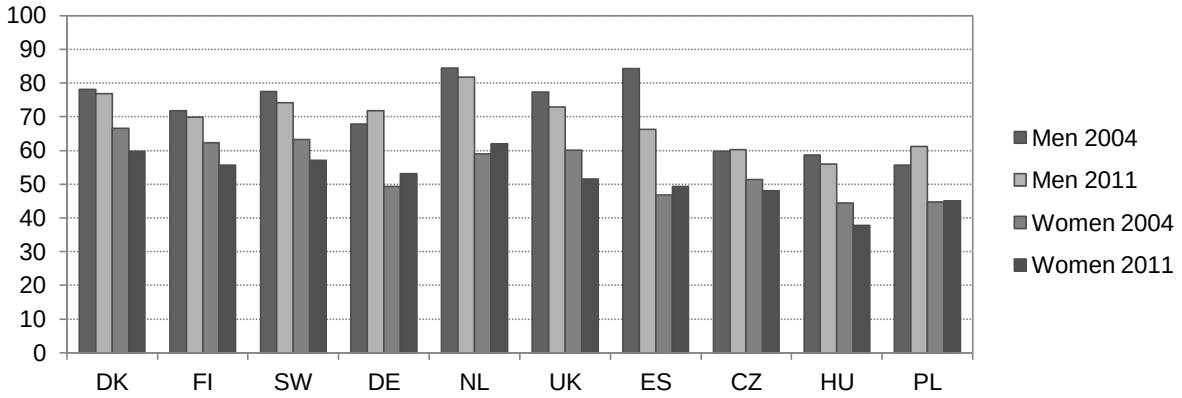
Labour market conditions 2004 and 2011

Social support from the state has an impact on especially women's labour market participation (see Allen et al. 2012; De Henau et al. 2010; Keck and Saraceno 2013; Misra et al. 2011). The work-family reconciliation policies in the Nordic countries support a more equally shared division of caring and earning responsibilities, reflected also in the high female employment rates also among mothers with relatively small children (Fahlén and Oláh 2013). The policy combination in the CEE countries, with a long and relatively generous maternal/parental leave but low provision of childcare (which can be linked to the long leave), encourages women to withdrawing from the labour market for several years after having children, as part-time entitlement is not fully implemented (Saxonberg and Sirovátka, 2006). Germany, the Netherlands, the UK and Spain are countries with unpaid or short parental leave and intermediate levels of childcare provision (Germany and the Netherlands), or expensive childcare (the UK and Spain), mainly on part-time basis (Eurostat 2013b; OECD 2011; 2013a). This is also mirrored in the relatively high proportion of short part-time working women (less than 30 hours per week) (Anxo et al., 2007; OECD 2009), except in Spain with an overall low employment rate for mothers of pre-schoolers (OECD 2012).

Considering changes employment rates for men and women, in their childrearing years, in 2004 and 2011, we can observe that the rates have decreased for men in all countries, except in Germany, the Czech Republic and Poland (Figure 3). Among women, the rates have decreased in all countries except in Germany, the Netherlands, Spain and Poland. Around

2004, the gender differences in employment are largest in Germany, the Netherlands, the UK and Spain. By 2011, the gender difference in Spain had decreased, mainly because of an 18 percentage point drop in men's employment rates.

Figure 3. Employment rates, 2004 and 2011, men and women aged 25-49 years.



Source: Eurostat (2013c).

The vast varieties in labour market arrangements across Europe, coupled with an increase in unemployment and economic uncertainty, have become highly relevant for fertility decisions (Adsera 2005b). For instance, aggregate unemployment can influence the childbearing intentions, not only for those directly affected by unemployment, but also for those who do not experience unemployment as aggregate unemployment can influence the sense of risks and security (Adsera 2011; Kravdal 2002). Studies from Spain and Sweden have shown that aggregated unemployment rates delay family formation (Gutiérrez-Domènech 2008; Hoem 2000) and higher order birth rates in Norway (Kravdal 2002). A cross-national comparative study shows that postponement of childbearing is more evident in countries with high and long-lasting unemployment (Adsera 2005b).

Employment protection legislation (EPL) is another factor related to economic uncertainty, which may have an indirect impact on childbearing intentions, as this may influence the sense of risks and future prospects. Many western countries have laws that protect workers from arbitrary dismissal. The laws seek to promote welfare and more stable employment for the workers and protection against uncertainty related to labour market changes (Allard 2005). In addition, an EU directive stipulates job protection in relation to the parental leave, i.e. the right to return to the same job after parental leave (Directive 96/34/EC). However, these rights are not fully enforced in all countries. For instance, there is evidence that women in the CEE countries are increasingly reluctant to make use of their work-family reconciliation rights out of fear of job loss or relocation (Fultz and Steinhilber 2003). This

fear of job loss in itself intensifies the sense of insecurity that surrounds childbearing decisions. In addition, difficulties in returning to work after being out of the labour force for several years increase the risk of unemployment that women encounter after they become mothers.

On a cognitive level one could expect that perceived job security to be higher in countries with stricter EPL. However, existing literature and studies on perceived job security and employment protection is gives little support for this assumption (see overview by Skedinger 2010). In fact, previous studies rather suggest that stronger EPL corresponds to less perceived job security (Böckerman 2004; Clark and Postel-Vinay 2009). In addition, strong employment protection legislation has often been blamed for high unemployment rates. However, this view is not universal among scholars (Nickell et al. 2005). The empirical evidence regarding the impact of EPL on employment and unemployment is inconclusive. Several studies have shown that strong legislation is associated with decreased employment/increased unemployment; while other studies indicate that strong legislation have no effect or increases employment/decreases unemployment (see overview by Skedinger 2010). Other studies suggest that this association varies by age groups and gender. Bertola et al. (2007) have found that countries with strong EPL have higher youth unemployment relative to the prime-aged. Kugler and Pica (2003) show that the EPL reform in Italy, in 1990, increased the employment for men, who more often hold stable and permanent jobs, and a decreased employment for women, who are more likely to hold temporary less stable jobs. The authors conclude that strong employment protection depresses employers' propensity to hire young women (Kugler and Pica 2003). This suggests 1) that unemployment rates are interlinked with the strictness of employment protection legislation, and 2) that younger individuals, and especially women, who have not yet entered parenthood, may be more affected by the EPL which can inhibit their entry to the labour market (Vos 2009).

Relatively few studies have studies the association between EPL and childbearing. However, Bratti et al. (2005) have found that women with stable and highly protected jobs are more able to combine work and family life, while those with weaker protection and stability are less likely to re-enter the labour force after having their first child. Adsera (2004) finds a negative relationship between stricter EPL and fertility rates across the OECD countries. Prifti and Vuri (2011) find the EPL reform in Italy had a positive impact on childbearing decisions among working women. As seen, the association between EPL and childbearing is inconclusive. We therefore seek to contribute to the empirical literature by analysing the association between EPL and childbearing intentions.

Method and data

The empirical analysis is based on data extracted from European Social Survey (2004/05 and 2010/11) conducted in more than 20 countries. The sample is representative of all persons older than 15 years in each country. The analysis includes a subsample of a total of 4,065 respondents from the ten European countries, women aged 20-45, and men aged 25-49 having at most one children, younger than 11 years living in the household (1,165 childless women, 1,009 childless men, 1,004 one-child mothers, and 887 one-child fathers).[5] Multivariate logistic regression models are applied on the micro level analysis.

Variables

Our dependent variable, *short-term childbearing intentions*, is operationalised in the question: *Do you plan to have a child within the next three years?* Answer alternatives are; definitely not (0), probably not (1), probably yes (2), and definitely yes (3). The variable is recoded into a dichotomous variable where probably yes and definitely yes equals 1. The main variables of interest are economic security in terms of perceived job security and income security. Job security and income security are self-evaluations of the employment situation and economic resources. Perceived job security is operationalised by the statement "My job is secure", in terms of an actual or implied promise of continued employment. The responses *not at all true/a little true* is regarded as perceived job insecurity and *quite true/very true* equals a perceived job security.[6] The variable job security also includes the categories unemployed (respondents not in paid work during the week of the the survey) and others (self-employed and other unspecified activities), as the question on job security was only asked to employed respondents. Perceived income security is based on the respondent's perception of the present household income. Responses *finding it difficult/very difficult to live on present income* are regarded as a constrained economic situation. *Living comfortably on present income* is a comfortable economic situation, and *coping on present income* is considered as a manageable economic situation. Control variables included in the analysis are; age (20-45 for the women and 25-49 for the men), educational attainment, age of the youngest child (if any), partners labour force participation, and country dummies.[7]

[5] Weights are used in the analyses to correct for differences in the sample design and population size (see ESS 2007).

[6] The question was only asked to employed women. All other women therefore combined in a category "else" to avoid a reduction of the subsample

[7] Age of the first child is divided into three categories: under three years, 3-6 years and 7-10 years.

Societal indicators of economic uncertainty

Indicators of societal changes are based on data from Eurostat and OECD. Unemployment rates from Eurostat are used, as well as the OECD index scores of the Strictness of Employment Legislation (EPL overall) (see OECD 2013c and Venn 2009 for index construction). The difference between 2004 and 2011 has been calculated to capture changes.

Considering changes in unemployment, in 2004, the unemployment rates in the ten selected countries, Poland, Spain, Germany and Finland had unemployment rates over 10 percent. The UK and the Netherlands had the lowest unemployment, less than 5 percent. By 2011, the unemployment had increased Spain, Hungary, the UK, Denmark and Sweden; and decreased in Poland, Germany, Finland, the Czech Republic and the Netherlands (Table 3). Considering the strictness of EPL in 2004; Germany, the Netherlands and the Czech Republic had the strongest protection for regular workers, while the UK and Finland had the weakest EPL for this group of workers. In 2011 Denmark, Finland, the Netherlands and Spain had loosened the strictness for regular workers (Table 3). The strictness of EPL for temporary employment is weaker than the EPL for regular workers in all countries except in Spain. Comparing the year 2004 with 2011, the employment protection for temporary workers had weakened in Sweden and Spain, but become stronger in the Czech Republic (Table 3).

Table 3. Unemployment rates, strictness of employment protection legislation (EPL), and changes between 2004 and 2011.

	Unemployment rates (15-64 years)			**Strictness of Employment protection legislation** (individual, collective dismissals)		(temporary employment)		
	2004	***2011***	***Change***	***2004***	***2011***	***2004***	***2011***	***Change***
DK	5.3	7.7	2.4	2.56	2.39	1.38	1.38	-0.08
FI	10.4	7.9	-2.5	2.08	2.01	1.56	1.56	-0.04
SW	6.8	8	1.2	2.58	2.58	1.44	0.81	-0.31
DE	10.8	6	-4.8	3.09	3.09	1.00	1.00	0.00
NL	4.7	4.4	-0.3	2.92	2.87	0.94	0.94	-0.02
UK	4.6	8.2	3.6	1.68	1.68	0.38	0.38	0.00
ES	11.1	21.8	10.7	2.76	2.65	3.25	2.56	-0.39
CZ	8.3	6.8	-1.5	2.97	2.79	0.50	1.31	0.32
HU	5.9	11	5.1	2.40	2.40	1.13	1.13	0.00
PL	19.4	9.8	-9.6	2.41	2.41	1.75	1.75	0.00

Note: Higher EPL value denotes stronger employment protection legislation. Difference in the two EPL indices has been divided by two as a strategy for capturing the overall change in employment protection.
Sources: Eurostat (2013d), OECD (2013b)

Results

This section will present the result from; i) a descriptive analysis of the variables included in the regression analysis and the differences between 2004 and 2011, ii) an aggregated analysis of the changes in societal factors (unemployment rates, work-family policies and strictness of EPL) and the difference in country specific childbearing intentions in 2004 and 2011, and iii) an individual level multivariate regression analysis with separate models by survey year, gender and parenthood status.

Descriptive analysis

The distribution of the dependent variable, the proportion who intends to have a child in the near future, is similar between survey year for all groups. For childless men, this proportion is smaller in 2011 compared with 2004, but this difference is not significant (Table 4).

Table 4. Descriptive statistics; difference between 2004 and 2011 by gender and parenthood status. Significant difference between survey year indicated with stars.

	Childless women		Childless men		One-child mothers			One-child fathers		
	2004	**2011**	**2004**	**2011**	**2004**	**2011**		**2004**	**2011**	
Plan having child within next 3 years										
Definitely yes/Probably yes	57.2	57.8	59.4	53.6	52.3	53.4		51.2	51.6	
Perceived job security										
Job is very secure	42.5	40.6	49.8	48.9	31.8	36.5	**	47.5	51.2	
Job not very secure	24.4	25.1	23.9	23.1	14.9	18.7		26.7	25.3	
Unemployed	20.7	20.1	8.2	9.4	37.5	34.9		8.8	7.4	
Others	12.4	14.2	18.1	18.6	15.9	9.9		17.1	16.0	
Percieved income security										
Comfortable economic situation	40.4	40.8	42.4	41.5	29.9	27.1		30.6	29.3	
Manageable economic situation	46.1	42.2	42.0	44.0	47.0	49.7		50.1	52.3	
Constrained economic situation	13.5	17.1	15.7	14.5	23.0	23.2		19.3	18.4	
Age										
20-24 years	20.9	21.5			8.6	9.2	*			
25-29 years	36.3	34.3	32.3	30.3	30.8	22.4		18.6	19.1	
30-35 years	23.1	25.3	34.3	33.5	38.1	41.7		41.4	39.8	
36-45 years	19.7	18.9	-	-	22.6	26.7		-	-	
36-40 years			16.7	14.3	-	-		24.7	21.9	
41-49 years			16.7	21.9	-	-		15.3	19.3	
Educational attainment										
Lower secondary level or less	10.4	12.3	13.9	13.9	13.0	13.8		13.6	14.4	
Upper secondary/advanced vocational	53.4	50.3	55.0	49.7	55.8	51.7		56.7	55.6	
Tertiary level	36.3	37.0	30.3	36.0	30.1	34.1		29.3	30.0	
Age of the first child										
Under 3 years	-	-			45.6	55.4	**	45.1	54.0	**
3-6 years	-	-			36.0	29.4		32.4	31.9	
7-10 years	-	-			18.3	15.2		22.5	14.2	
Partners labour force attachment										
Paid work	84.6	85.2	79.1	77.9	88.2	92.2	*	57.8	61.6	
Not in paid work	15.4	14.8	20.9	22.1	11.8	7.8		42.2	38.4	
Total	579	586	498	511	491	513		457	430	

****p ≤0.001; **p ≤0.01; *p ≤0.05*

Note: Missing category is omitted from the table.

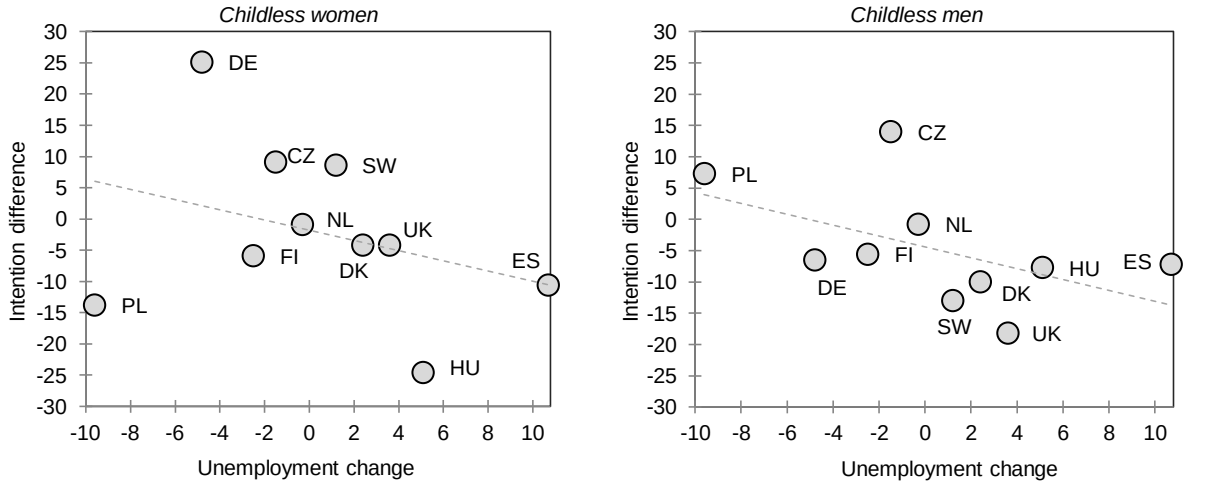
The main independent variable of interest, perceived job security and perceived income security, do not vary to any larger extent between the two survey years (Table 4). The difference between the survey years is not statistically significant, except for one-child mothers' perceived job security, where the proportion who perceive their job as secure and those who perceive their job as insecure is larger in 2011 compare with 2004. Considering our control variables; age, educational attainment, age of the first child (if any) and partner's labour force attachment, there are some differences between the two years. There are no significant differences in the age distribution between the two survey years, except for one-child mothers. The sample of one-child mothers in 2011 is somewhat older, compared with 2004. In regard to educational attainment, we can observe that tertiary education is more frequent in 2011 for all groups, yet difference between the two survey years is not statistically significant. The proportion of parents having a child younger than three is significantly larger in 2011 than in 2004. The proportion of the one-child mothers with a partner in paid work is significantly larger in 2011 compared with 2004. The differences between the two survey years, seen in Table 4, are mainly related to country differences.

Societal factors and aggregated intentions

To explore the interrelation between societal change and people's childbearing intentions, differences in aggregated childbearing intentions (difference in the proportion who intends to have a[nother] child in the near future) between 2004 and 2011 is analysed in relation to changes in societal indicators, such as unemployment rates and strictness of employment protection (EPL).

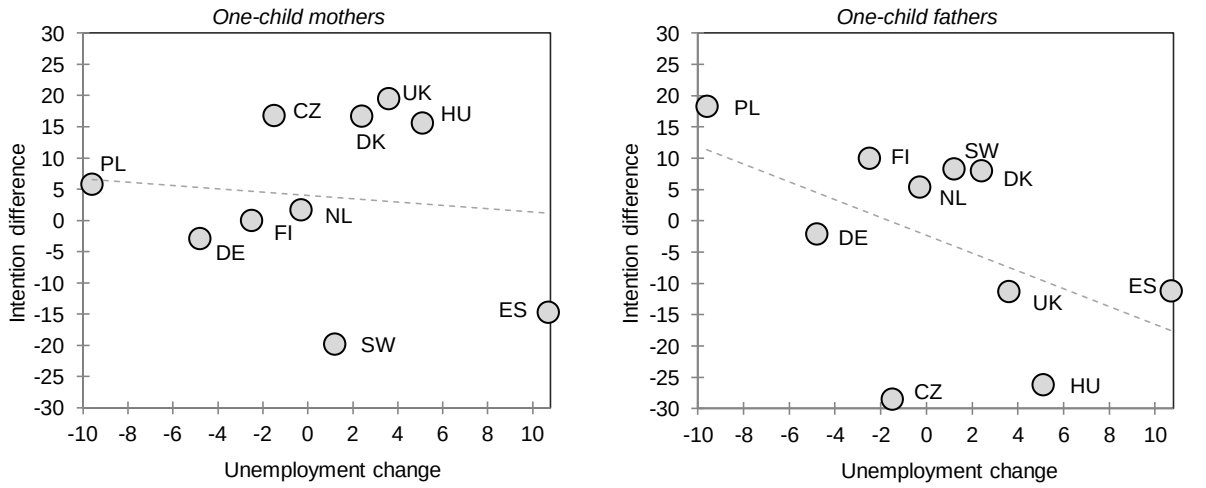
The first figures (4A and 4B) show the association between changes in unemployment rates between the years 2004 and 2011 and the changes in aggregated childbearing intentions. The childbearing intentions among childless men and women have decreased in countries where unemployment rates increased. This association is stronger for childless men than for childless women (Figure 4A). A similar pattern is found for one-child parents; with a stronger association for one-child fathers (Figure 4B). This suggests that economic uncertainty in terms of unemployment risks have an impact on people's short-term childbearing intentions, especially among childless men and fathers who may be, or regarded as, the main provider in the household.

Figure 4A. Intention difference for childless, and change in unemployment rates.



Correlation: -0.33 *Correlation: -0.52*

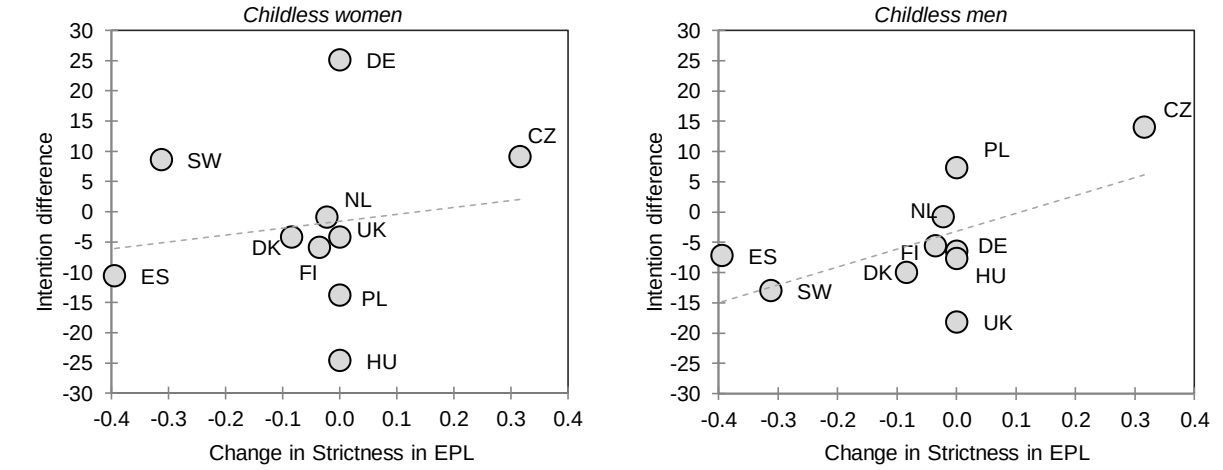
Figure 4B. Intention difference for one-child parents, and change in unemployment rates.



Correlation: -0.11 *Correlation: -0.50*

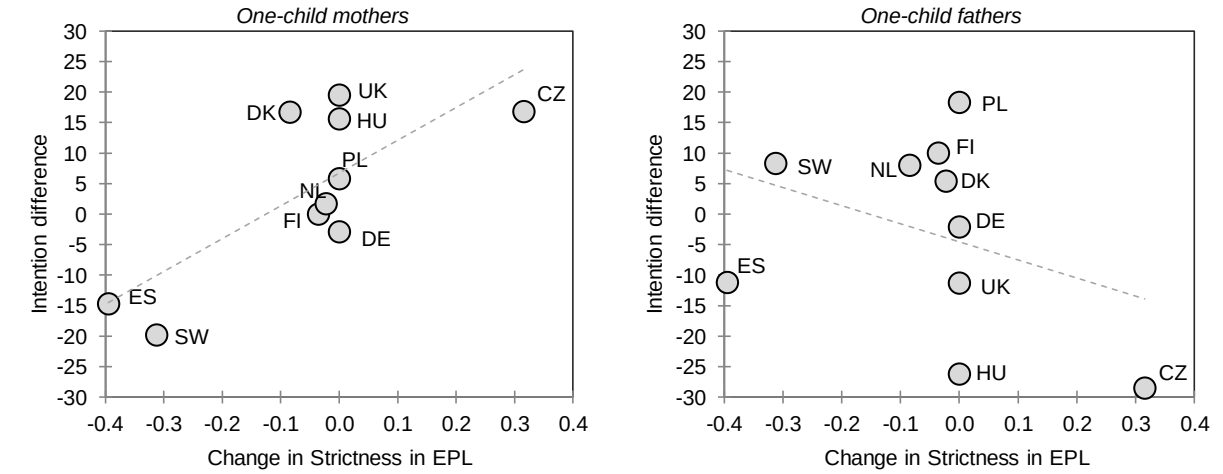
The two following figures (5A and 5B) show the association between changes in employment protection legislation between the years 2004 and 2011 and the changes in aggregated childbearing intentions. Employment protection seems to matter most for childless men's short-term childbearing intentions (Figure 5A) and for one-child mothers' intentions (Figure 5B), yet we find a positive relationship also for childless women. In countries where the employment protection legislation has been strengthened, we can observe an increase in short-term childbearing intentions for childless men and women, and one-child mothers, but a decrease for one-child fathers. The association suggests that economic security in regard to employment protection is an important factor for further childbearing plans among mothers who may run a higher risk of unemployment after childbirth.

Figure 5A. Intention difference for childless, and change in strictness of ELP.



Correlation: 0.16 *Correlation: 0.60*

Figure 5B. Intention difference for one-child parents, and change in strictness of ELP.



Correlation: 0.75 *Correlation: -0.36*

These results suggest that societal changes in terms of economic uncertainty impact on short-term childbearing intentions across welfare states, but the association varies by gender and parity.

Individual level analysis of economic uncertainty and short-term childbearing intentions

In this section we analyse the individual level perceived job security, income security and it impact on short-term childbearing intentions, by logistic regression with separate models for childless women (Table 5), childless men (Table 6) and one-child parents (Table 7 and Table 8), by separate age groups to account for interactions between age and other variables. The tables also present interactions between the main variable of interest (survey years, perceived

employment security and perceived income security). Only interactions that significantly increase the model fit is included in the analysis.

Uncertainty and short-term childbearing intentions among childless women

Table 5 includes the regression results for childless women, with separate analysis by age groups 20-29 and 30-45 years. For childless women, aged 20-29 (Model 1), perceiving the job as insecure reduces their short-term childbearing intentions. For childless women aged 30-45 (Model 3), we find no significant impact of job security on short-term childbearing intentions. However, we found perceived employment security to interact with welfare states for both age groups of childless women (Model 2 and Model 4). The impact of unemployment on short-term childbearing intentions for both age groups becomes significant, and positive, only when interactions are taken into account. These results indicate that perceived employment not only vary by age, but also by welfare states and survey years, which will be further discussed in the next section.

Childless women, regardless of age, who perceive their economic situation as constrained are less inclined to plan for a child in the near future, compared with those who perceive their situation as manageable (Model 1 and Model 3). We find perceived income security to interact with survey year for both age groups, and with welfare states for the younger age group. This suggests that income security have different impact on short-term childbearing intentions in different contexts and survey year, which will be further discussed in the next section.

The difference between welfare states indicates that childless women, 20-29 years, in Spain and the CEE countries are more likely to intend to have a child in the near future than are childless women in the UK (Model 1). For the older age group, only women in Spain display higher intention propensities than the UK (Model 3). However, several interactions were found in regard to welfare states, of which several have already been mentioned. Among childless women, both age groups, interactions were found between survey year and welfare states (Model 2 and Model 4). Taking this into account, a diverse pattern appears between countries and survey year.

Table 5. Logistic regression of childbearing intentions of childless women, separate analysis by age groups (coefficients).

	Childless women 20-29 years		Childless women 30-45 years	
	Model 1	*Model 2*	*Model 3*	*Model 4*
Survey year				
Year 2004	*ref.*	*ref.*	*ref.*	*ref.*
Year 2011	0.00	0.68	0.53 **	0.22
Employment security				
Secure job	*ref.*	*ref.*	*ref.*	*ref.*
Insecure job	-1.02 ***	-2.94 ***	-0.04	-1.21 (*)
Unemployed	-0.03	2.33 **	0.43	2.03 *
Other	-0.62 *	-0.63	0.31	-0.30
Income security				
Manageable economic situation	*ref.* *	*ref.*	*ref.* (*)	*ref.*
Comfortable economic situation	-0.25	0.50	0.03	0.30
Constrained economic situation	-0.68 **	-1.23 *	-0.69 *	-1.22 *
Age				
20-24	*ref.*	*ref.*		
25-29	1.08 ***	1.23 ***		
30-35			*ref.*	*ref.*
36-45			-2.04 ***	-2.14 ***
Educational attainment				
Lower secondary level or less	0.06	0.05	-1.11 ***	-1.09 ***
Upper secondary level	*ref.*	*ref.*	*ref.*	*ref.*
Tertiary education	-0.16	-0.21	0.44 *	0.45 *
Partner's labour force attachment				
Partner in paid work	*ref.*	*ref.*	*ref.*	*ref.*
Partner not in paid work	-0.31	-0.37	-1.34 ***	-1.41 ***
Welfare states				
UK	*ref.*	*ref.*	*ref.*	*ref.*
DE/FI/SW	0.43	0.23	-0.05	-0.17
DE/NL	-0.02	-0.51	-0.17	-1.05 *
ES	0.84 **	2.63 *	0.69 *	0.76
CZ/HU/PL	0.91 ***	1.83 **	-0.22	0.53
2011*Welfare States				
2011*DE/FI/SW		-0.49		0.39
2011*DE/NL		0.21		1.21 *
2011*ES		-1.61 *		-0.33
2011*CZ/HU/PL		-1.71 **		-0.03
2011*Income security				
2011*Comfortable economic situation		-0.85 *		-0.54
2011*Constrained economic situation		0.74		1.07
Welfare States*Employment security				
DE/FI/SW*Insecure job		3.05 **		1.22
DE/NL*Insecure job		1.76 *		1.57 *
ES*Insecure job		0.93		1.36 (*)
CZ/HU/PL*Insecure job		2.45 **		0.76
DE/FI/SW*Unemployed		-2.60 *		-2.63
DE/NL*Unemployed		-2.52 **		-1.38
ES*Unemployed		-3.92 ***		-1.61
CZ/HU/PL*Unemployed		-2.53 **		-3.31 *
Welfare States*Income security				
DE/FI/SW*Comfortable economic situation		0.27		
DE/NL*Comfortable economic situation		1.01 (*)		
ES*Comfortable economic situation		-1.12		
CZ/HU/PL*Comfortable economic situation		-0.49		
DE/FI/SW*Constrained economic situation		1.41		
DE/NL*Constrained economic situation		0.54		
ES*Constrained economic situation		1.28		
CZ/HU/PL*Constrained economic situation		0.03		
Constant	0.08	-0.44	0.62	0.83
Nagelkerke R Square	0.17	0.30	0.38	0.44
-2 LLR	102.66 ***	190.27 ***	226.53 ***	268.59 ***
Df	15	41	14	32
N	658	658	507	507

****p ≤0.001; **p ≤0.01; *p ≤0.05.*

Turning to our control variables, the gradients are as expected; the youngest (20-24) and oldest (36-45) age groups are the least likely to intend to have a child in the near future. Educational attainment does not seem to have a significant impact on short-term childbearing intentions for the youngest age group (Model 1). For the older age group, less educated childless women are less likely to plan for a child in the near future, and tertiary educated are the most prone to intend to have a child within the next three years (Model 3). This association remains when interactions are taken into account (Model 4). Not having a partner decreases the likelihood to intend to have a child in the near future for the older age group of childless women (Model 2 and Model 4).

Interaction analysis: childless women

When calculating probabilities[8] for childless women, taking the interactions into account (Table 5, Model 2 and Model 4), it is evident that the impact of job security on short-term childbearing intentions vary across welfare states, by survey year and age. Figure 6 illustrates these interactions among childless women aged 25-29 and 30-35 years.[9] These two groups are selected due to the fact that these groups are most likely to intend to have a child in the near future. In all the figures hereafter, lines are used to highlight the difference between the same category for the years 2004 and 2011. The lines do not imply a continuous change between the two years, as only two points in time is available.

For childless women ages 25-29 (Figure 6, black triangles), we can observe a diverse patterns across welfare states regarding difference between 2004 and 2011. In UK, the Nordic countries and Germany/the Netherlands, the intention probabilities are higher in 2011 than in 2004, regardless of employment situation. In Spain and the CEE countries, the intention probabilities are lower in 2011 than in 2004, regardless of employment situation, suggesting that childless' short-term childbearing intentions in these countries are more affected by their perceived employment security in times of economic uncertainty. Across all welfare states, the intention probabilities are lower for those who perceive their job as insecure, compared with those who perceive their job as secure. This indicates that employment security have an impact on young childless women's future childbearing plans. This is most evident in the UK and less so in the Nordic countries.

[8] Formula to calculate probabilities from the coefficients in the logistic regression: P=exp(a+b(var1)+b(var2)+b(var3)+…)/ 1+exp(a+b(var1)+b(var2)+b(var3)+…), where a denotes the constant and b the coefficient value.

[9] The calculations also adjust for perceived income security, education and partner's labour force attachment. These variables are set at baseline.

Unemployment seems to matter less than an insecure job in all welfare states, seen in smaller differences between the unemployed and those who perceive their job as secure, than between insecure job and secure job, except in the Nordic countries. In Spain, the negative impact of unemployment on childbearing intentions is more evident in 2011 compared with 2004, revealed in a larger difference in 2011 between the unemployed and those who perceive their job as insecure, compared with 2004.

For childless women ages 30-35 (Figure 6, grey dots), societal economic uncertainty seems to be of less importance, indicated by higher intention probabilities in 2011 compared with 2004 regardless of employment situation, except in Spain. Nevertheless, in the UK and the CEE countries, those who perceive their job as insecure are less likely to plan for a child in the near future, compared with those who perceive their job as secure. This is most evident in the UK. The impact of unemployment on childbearing intentions also varies across welfare states. In 2011 it is foremost unemployed childless women, aged 30-35, in the CEE countries who are less prone to have a child within the next years, compared with those who perceive their job as secure. The opposite is found in the UK, where unemployed women are more likely to intend to have a child in the near future, than are those who perceive their job as secure.

Figure 6. Short-term intention probabilities among childless women, aged 25-29 and 30-35, by perceived job security and survey years, separated by welfare states.

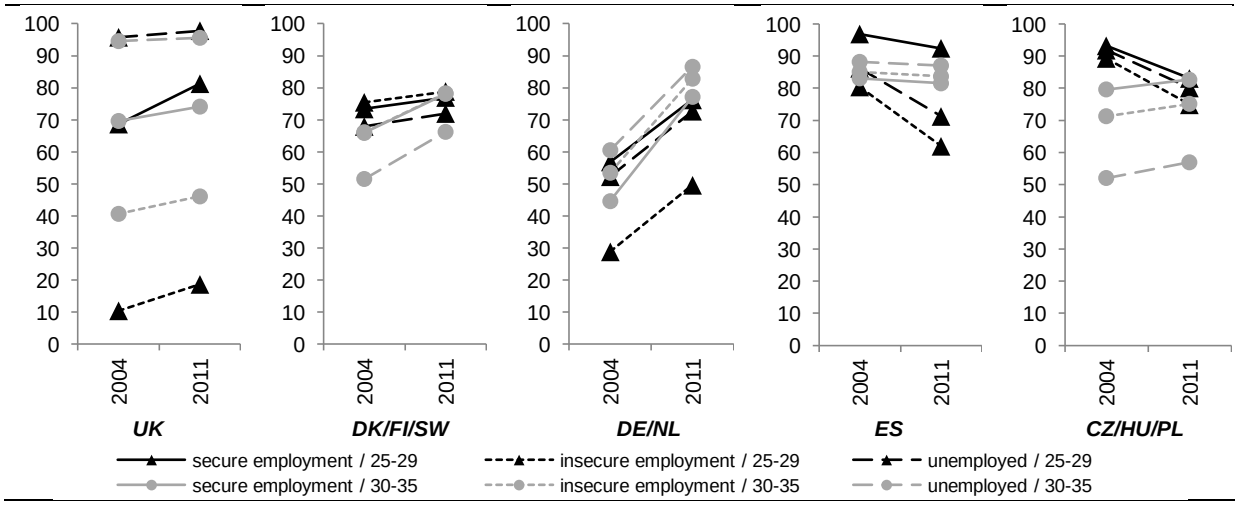
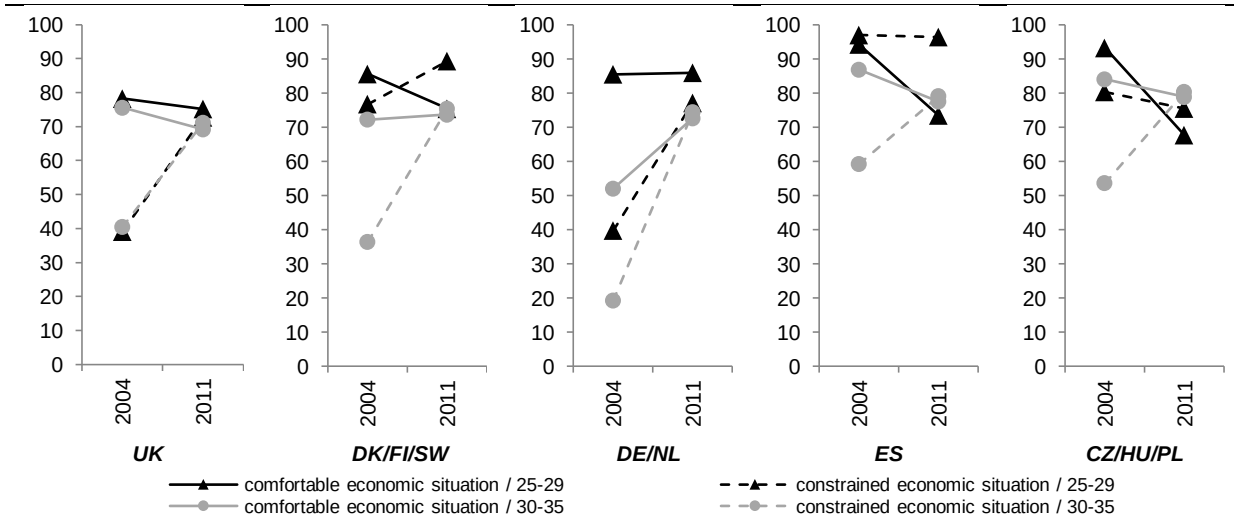


Figure 7 illustrates the interactions between survey year, perceived income security and countries among childless women aged 25-29 and 30-35 years.[10] For childless women aged 25-29 (Figure 7, black triangles), the intention probabilities among those who perceive their

[10] The calculations adjust for perceived employment security, education and partner's labour force attachment. These variables are set at baseline.

economic situation as constrained, are higher in 2011 than in 2004, except in Spain and the CEE countries where the difference between the two years are minor. This indicates that perceived income security have very little impact on young childless women's future childbearing plans in times of societal economic uncertainty. However, the difference between income groups varies by welfare states and survey year. For instance, in the UK, Germany/the Netherlands and the CEE countries, the difference between those who perceive their economic situation as comfortable and those with a constrained economic situation is larger in 2004 than in 2011, and those with a constrained economic situation were less likely to intend to have a child in the near future. In the Nordic countries and Spain, the difference between those who perceive their economic situation as comfortable and those with a constrained economic situation is larger in 2011 than in 2004, yet it is those with a comfortable economic situation who are less likely to plan for a child within the next three years. The difference across welfare states, regarding those with a constrained economic situation is minor.

Figure 7. Short-term intention probabilities among childless women, aged 25-29 and 30-35, by perceived income security and survey years, separated by welfare states.



Also for childless women aged 30-35 (Figure 7, grey dots), the intention probabilities, among those who perceive their economic situation as constrained, are higher in 2011 than in 2004. Societal economic uncertainty seems to matter more for those with a comfortable economic situation in the UK, Spain and the CEE countries, seen in lower intention probabilities in 2011 compared to 2004. Still, the difference between those with a comfortable economic situation and those who perceive their economic situation as constrained is smaller in 2011 compared to 2004. This suggests that societal economic uncertainty do not interplay

with perceived income insecurity for childless women aged 30-35 and the difference across welfare states is only minor. This may also be an indicator of the fact that women aged 30-35 are closer to the end of their fertile career; hence the household economy may play a lesser role in childbearing decisions when faced with a biological deadline.

Uncertainty and short-term childbearing intentions among childless men

Table 6 displays the regression results for childless men, with separate analysis by age groups 25-35 and 36-49 years. Childless men, regardless of age, are less likely to intend to have a child within the next three years in 2011 compared with 2004. This implies that societal economic uncertainty have a direct impact on childless men's short-term intentions. However, for the age group 36-49, this association becomes significant only after interactions are taken into account (Model 4). At first sight, perceived job insecurity does not seem to have an impact on childless men's intentions, regardless of age (Model 1 and 3). However, for childless men aged 25-35, employment security interacts with age (Model 2). Taking this interaction into account the result shows that employment security matters more for the youngest age group (25-35 years). For childless men aged 36-49, employment security interacts with survey year (Model 4), which implies that job insecurity an unemployment have a more negative impact on 36-49 year old childless men's short-term intentions in times of societal economic uncertainty. These interactions will be further discussed in the next section.

Childless men aged 25-35, who perceive their economic situation as constrained are less inclined to plan for a child in the near future, compared with those who perceive their situation as manageable (Model 1 and 3). This association becomes stronger when accounting for interactions with welfare states, suggesting that income security have different impact on short-term childbearing intentions in different welfare states and survey year, which will be discussed below. No significant impact of income security on short-term childbearing intention was found for childless men aged 36-49.

The difference between welfare states suggests that childless men, 25-35 years, in Spain and the CEE countries are more likely to intend to have a child in the near future than are childless men, 25-35 years, in the UK (Model 1), yet as stated, welfare states interact with income security (Model 2). For the older age group, no significant differences between welfare states were found (Model 3). These differences were hidden due to interactions between survey years. Accounting for these interactions we can see that in 2004 childless men in all welfare states, apart from Spain, are less likely to intend to have a child within the next three years, compared with the UK. In contrast, in 2011 we find that childless men (age 36-

49) in all welfare states are more likely to intend to have a child in the near future than are childless men in the UK (Model 4).

Table 6. Logistic regression of childbearing intentions of childless men, separate analysis by age groups (coefficients).

	Childless men 25-35 years		Childless men 36-49 years	
	Model 1	*Model 2*	*Model 3*	*Model 4*
Survey year				
Year 2004				
Year 2011	-0.28 (*)	-0.42 *	-0.28	-1.05 (*)
Employment security				
Secure job	*ref.*	*ref.*	*ref.*	*ref.*
Insecure job	0.06	-2.23 *	0.00	0.81 *
Unemployed	0.43	-0.90	-1.05 (*)	0.39
Other	0.24	-2.76 *	-0.40	-0.24
Income security				
Manageable economic situation	*ref.*	*ref.*	*ref.*	*ref.*
Comfortable economic situation	0.44 *	-0.35	-0.10	-0.11
Constrained economic situation	-0.59 *	-2.10 ***	0.23	0.25
Age				
25-29	*ref.*	*ref.*		
30-35	0.32 (*)	-0.04		
36-40			*ref.*	*ref.*
41-49			-2.00 ***	-2.04 ***
Educational attainment				
Lower secondary level or less	-0.44 (*)	-0.54 *	-0.59 (*)	-0.65 (*)
Upper secondary level	*ref.*	*ref.*	*ref.*	*ref.*
Tertiary education	0.04	0.04	0.22	0.13
Partner's labour force attachment				
Partner in paid work	*ref.*	*ref.*	*ref.*	*ref.*
Partner not in paid work	-0.27	-0.27	-1.83 ***	-1.78 ***
Welfare states				
UK	*ref.*	*ref.*	*ref.*	*ref.*
DE/FI/SW	0.04	0.26	-0.35	-1.36 (*)
DE/NL	-0.12	0.33	-0.04	-0.83 (*)
ES	0.48 *	0.51	0.52	-0.36
CZ/HU/PL	0.53 *	1.16 (*)	0.01	-1.67 *
2011*Welfare States				
2011*DE/FI/SW				1.94
2011*DE/NL				1.39 *
2011*ES				1.82 *
2011*CZ/HU/PL				2.99 **
2011*Employment security				
2011*Insecure job				-1.55 **
2011*Unemployed				-3.07 *
Welfare States*Income security				
DE/FI/SW*Comfortable economic situation		0.79		
DE/NL*Comfortable economic situation		1.32 **		
ES*Comfortable economic situation		0.76		
CZ/HU/PL*Comfortable economic situation		1.18		
DE/FI/SW*Constrained economic situation		1.62		
DE/NL*Constrained economic situation		2.72 ***		
ES*Constrained economic situation		2.16 **		
CZ/HU/PL*Constrained economic situation		1.34 (*)		
Employment security*Age				
Insecure job*30-35		0.88 *		
Unemployed*30-35		0.55		
Constant	0.59 *	1.45 ***	0.75 *	1.22 **
Nagelkerke R Square	0.08	0.13	0.36	0.405
-2 LLR	45.80 ***	72.56 ***	152.26 ***	173.98 ***
Df	15	26	15	22
N	658	658	351	351

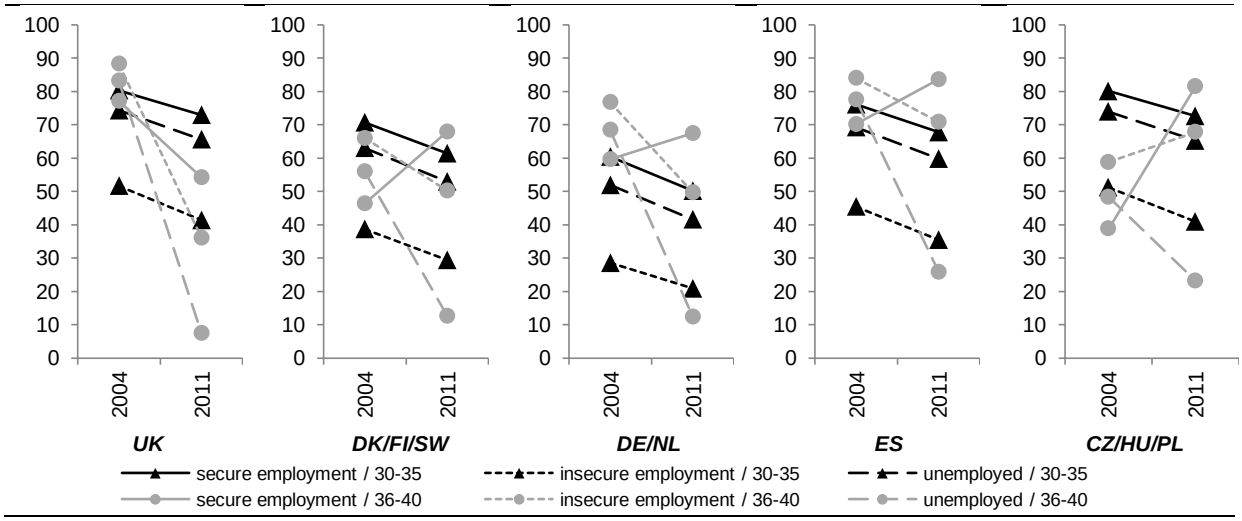
****p ≤0.001; **p ≤0.01; *p ≤0.05*

Considering the control variables, childless men aged 30-35 and 36-40 are more likely to intend to have a child in the near future, compared with childless men aged 25-29 (Model 1) and childless men 41-49 years (Models 3-4). Less educated are less likely to intend to have a child in the near future (Models 1-4). Having a partner not in paid work mainly affect the short-term childbearing intentions among childless men ages 36-49 (Models 3-4).

Interaction analysis: childless men

Turning to interactions (Table 6, Model 2 and Model 4) and the calculated intention probabilities for childless men, it is clear that job security impact on short-term childbearing intentions, yet this association vary by survey year, age and by welfare states. Figure 8 illustrates these interactions among childless men aged 30-35 and 36-40 years.[11] These age groups are the groups most likely to intend to have a child in the near future.

Figure 8. Short-term intention probabilities among childless men, aged 30-35 and 36-40, by perceived job security and survey years, separated by welfare regimes.



Across all welfare states, in regard to childless men aged 30-35 (Figure 8, black triangles), the intention probabilities are lower in 2011 compared with 2004. This is most evident for those who perceive their job as insecure, especially in Germany/the Netherlands. This indicates that job insecurity depress short-term childbearing intentions for childless men (age 30-35) in times of societal economic uncertainty. The patterns are similar across welfare states due to the fact that no interactions were found in regard to welfare states. This also

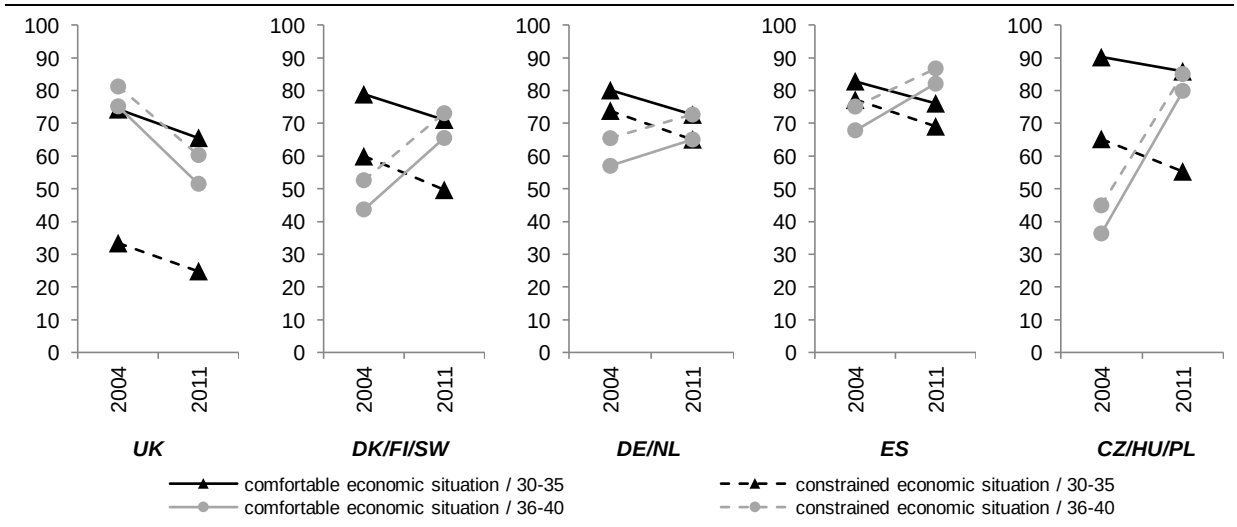
[11] The calculations adjust for perceived income security, education and partner's labour force attachment. These variables are set at baseline.

suggests that employment uncertainty have similar impact on short-term childbearing intentions for childless men aged 30-35.

The pattern is slightly diverse for childless men aged 36-40 (Figure 8, grey dots). In all welfare states, we can observe a larger difference between those with a secure job and those with an insecure job or unemployed, when comparing 2011 to 2004. In 2011, the unemployed seems to be the one who have the least ability to plan for a child in the near future, and slightly more so in the UK. Also for those with an insecure job in 2011, the intentions probabilities are lower when compared to those with a secure job, again this is slightly more evident in the UK. This indicates that employment security is an important factor for childless men's (age 36-40) short-term childbearing intentions in times of societal economic uncertainty.

Turning to the income situation for childless men aged 30-35 (Figure 9, black triangles). The intention probabilities are lower in 2011 than in 2004 across all welfare states, and regardless of the income situation. This indicates that perceived income security have an impact on childless 30-35 year old men's childbearing plans in times of societal economic uncertainty. However, the difference between income groups varies by welfare states, and this difference is most evident in the UK followed by the CEE countries and the Nordic countries. Nevertheless, those who perceive their economic situation as constrained are less likely to intend to have a child in the near future than are those who perceive their income economic situation as comfortable, especially in the UK. The difference between income groups is only minor in Germany/the Netherlands and Spain.

Figure 9. Short-term intention probabilities among childless men, aged 30-35 and 36-40, by perceived income security and survey years, separated by welfare states.



The differences observed for childless men aged 36-40 (Figure 9, grey dots), are mainly caused by the interaction between welfare states and survey year, as no significant difference was found in regard to income security. Nevertheless, lowest intention probabilities for those who perceive their economic situation as constrained is found in the UK.

Uncertainty and short-term childbearing intentions among one-child mothers

Table 7 shows the analyses of one-child mother's short-term childbearing intentions, with separate analysis by age groups 20-29 and 30-45years.

Similar to childless women aged 20-29 and childless men aged 25-35, one-child mothers, regardless of age groups, who perceive their job as insecure are less likely to plan for another child in the near future (Table 7, Model 1 and 2). For mothers aged 20-29, this becomes statistically significant only after interactions with survey year are taken into account. This suggests that by 2011, those who perceive their job as insecure are slightly more likely to intend to have a child in the near future, compare to the same group in 2004 (Model 2). However, survey year also interact with countries indicating that one-child mothers short-term childbearing intentions vary by survey year, country and perceived job security (see discussion below). Unemployment has a negative impact on short-terms childbearing intention among one-child mothers aged 20-29. For one-child mothers aged 30-45, the negative impact of job insecurity on short-term childbearing plans remain even after interactions are taken into account (Model 4). Unemployment becomes statistically significant only after interactions with survey year are taken into account (Model 4), suggesting that unemployed one-child mothers, aged 30-45, are more inclined to plan for an additional child in 2011 compared with 2004. Also among one-child mothers, aged 30-45, we found several interactions with employment security, such as survey year and age. These interactions will be discussed further in the next section.

In regard to income security, one-child mothers (age 20-29) who perceive their economic situation as constrained are less inclined to plan for another child in the near future, while those who perceive their economic situation as comfortable are more likely to intend to have another child, compared with those who have a manageable economic situation. This association remains when controlling for interactions (Model 2), though no interactions were found for income security. Income security seems to be less important for one-child mothers, 30-45 years, however interaction with survey year was found which suggests that economic constrains are have a more negative impact on short-term childbearing intentions in times of societal economic uncertainty (see fuller discussion below).

Table 7. Logistic regression of childbearing intentions of one-child mothers, separate analysis by age groups (coefficients).

	One-child mothers 20-29 years		One-child mothers 30-45 years	
	Model 1	*Model 2*	*Model 3*	*Model 4*
Survey year				
Year 2004	*ref.*	*ref.*	*ref.*	*ref.*
Year 2011	0.26	1.50 *	-0.21	0.86 (*)
Employment security				
Secure job	*ref.*	*ref.*	*ref.*	*ref.*
Insecure job	-0.45	-0.96 (*)	-0.97 ***	-0.77 (*)
Unemployed	-0.50 (*)	-0.26	0.00	0.59 (*)
Other	-0.13	0.55	-0.22	-0.77 *
Income security				
Manageable economic situation	*ref.*	*ref.*	*ref.*	*ref.*
Comfortable economic situation	0.77 *	1.21 **	-0.09	0.22
Constrained economic situation	-0.66 *	-0.58 *	-0.11	0.94 **
Age				
20-24	*ref.*	*ref.*		
25-29	0.98 ***	1.16 ***		
30-35			*ref.*	*ref.*
36-45			-0.98 ***	-1.62 ***
Educational attainment				
Lower secondary level or less	0.54 (*)	0.68 *	-0.56 *	-0.46
Upper secondary level	*ref.*	*ref.*	*ref.*	*ref.*
Tertiary education	-0.22	-0.24	0.22	0.32 (*)
Age of first child				
Under 3 years	*ref.*	*ref.*	*ref.*	*ref.*
3-6 years	-0.59 *	-0.55 (*)	-0.88 ***	-1.03 ***
7-10 years	-1.79 ***	-1.98 ***	-1.35 ***	-1.50 ***
Partner's labour force attachment				
Partner in paid work	*ref.*	*ref.*	*ref.*	*ref.*
Partner not in paid work	0.27	0.42	-0.70 *	-0.90 **
Welfare states				
UK	*ref.*	*ref.*	*ref.*	*ref.*
DK/FI/SW	0.59	0.92	0.23	1.02 (*)
DE/NL	-0.74 *	0.25	-0.96 ***	-0.67 (*)
ES	-1.63 ***	-1.68 **	-0.45 (*)	0.36
CZ/HU/PL	-0.21	-0.04	-0.37	-0.50
2011*Employment security				
2011*Insecure job		0.52		-0.39
2011*Unemployed		-0.81		-1.57 ***
2011*Other		-1.90 *		-0.16
2011*Welfare States				
2011*DK/FI/SW		-0.61		-1.20
2011*DE/NL		-2.06 **		-0.55
2011*ES		0.21		-1.50 **
2011*CZ/HU/PL		-0.28		0.13
2011*Income security				
2011*Comfortable economic situation				-0.47
2011*Constrained economic situation				-1.68 ***
Employment security*Age				
Insecure job*36-45				0.27
Unemployed*36-45				0.83 (*)
Constant	0.45	-0.25	1.39 ***	0.69
Nagelkerke R Square	0.21	0.27	0.29	0.34
-2 LLR	70.57 ***	91.41 ***	206.29 ***	241.49 ***
Df	17	24	*17*	*29*
N	355	355	649	649

****p ≤0.001; **p ≤0.01; *p ≤0.05*

Considering country differences, only one-child mothers in Germany/the Netherlands and Spain are significantly less likely to intend to have another child in the near future,

compared with the UK (Models 1 and 3). However, welfare state variation in short-term childbearing intentions interacts with survey year, resulting in a diverse pattern across countries and survey year (Models 2 and 4). This will be illustrated below when considering the interactions between employment security and survey year.

The results of our control variables show that one-child mothers aged 25-29 and 30-35 are more likely to intend to have another child in the near future, compared with one-child mothers aged 20-24 (Model 1) and one-child mothers aged 36-45 (Models 1-4). Less educated one-child mothers ages 20-29 are more likely to plan for another child in the near future (Models 1-2). Less educated one-child mothers ages 30-45 are less likely to plan for another child in the near future compared with middle educated mothers (Model 3), but this ceases to be significant when interactions are taken into account (Model 4). High educated are more likely to plan for another child in the near future than the middle educated mothers (Model 4). Having an older child, decrease the likelihood for mothers to intend to have an additional child (Models 1-4). Partners labour force attachment mainly affects the short-term intentions among one-child mothers aged 36-45. Having a partner not in paid work decreases the propensity to plan for another child in the near future (Models 3-4).

Interaction analysis: one-child mothers

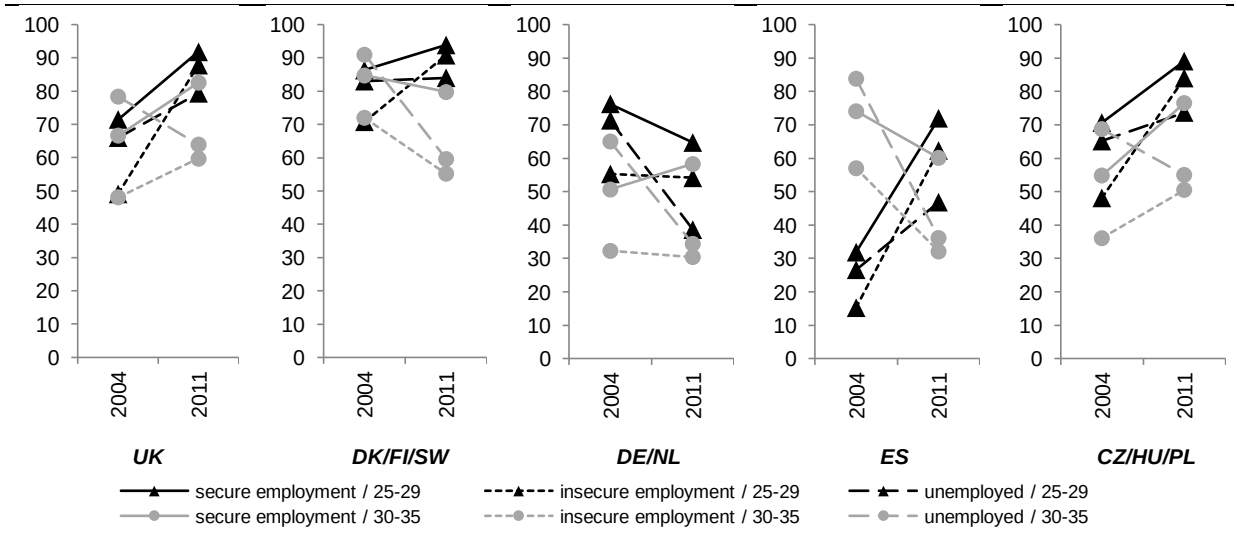
The calculated intention probabilities for one-child mothers, taking the interactions into account (Table 7, Model 2 and 4), show that the impact of job security on short-term childbearing intentions vary by survey year, age and welfare states. Figure 10 illustrate these interactions among one-child mothers aged 25-29 and 30-35 years, the age groups most likely to intend to have another child in the near future.[12]

For one-child mothers aged 25-29 (Figure 10, black triangles), the intention probabilities are higher in 2011 than in 2004, regardless of employment situation. This suggests that societal economic uncertainty have limited impact on one-child mothers plans to have another child in the near future, except in Germany/the Netherlands where the intentions probabilities are lower in 2011 than in 2004. We can also see that the difference between those who perceive their job as insecure and those who perceive their job as secure is smaller in 2011, compared to 2004. Comparing the impact of job insecurity on childbearing intentions across the welfare regimes in times of societal economic uncertainty, one-child mothers (25-29 years) in Germany/the Netherlands and Spain display the lowest probabilities to plan for

[12] The calculations adjust for perceived income security, education, age of the first child, and partner's labour force attachment. These variables are set at baseline.

an additional child. For unemployed we observe lager differences in 2011 when compared with those who perceive their job as secure. This indicates that, in times of societal economic uncertainty, unemployment is a greater hinder for 25-29 year old one-child mothers than are job insecurity, especially in Germany/the Netherlands and Spain. This also suggests that one-child mothers not in the labour market, in certain institutional contexts, may face greater difficulties re-entering the labour market in times of societal economic uncertainty, which in turn obstruct their plans for additional children.

Figure 10. Short-term intention probabilities among one-child mothers, aged 25-29 and 30-35, by perceived job security and survey years, separated by welfare states.



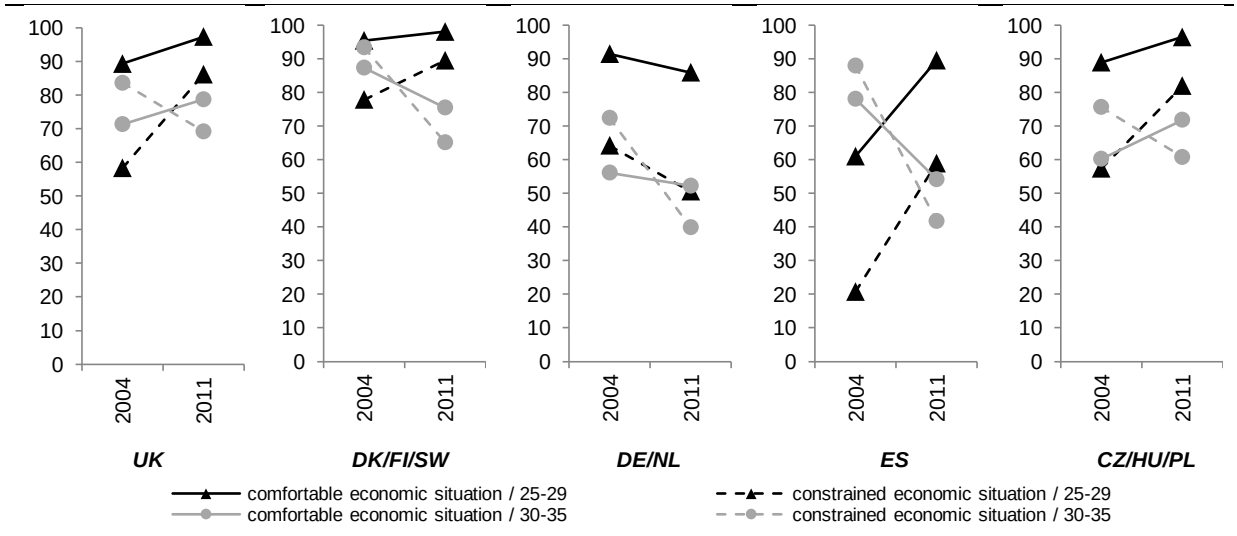
For one-child mothers aged 30-35 (Figure 10, grey dots), societal economic uncertainty seems mainly to affect the short-term intentions among the unemployed, seen in lower intentions probabilities for this group in 2011, compared with 2004. The largest difference between the two years is found for Germany/the Netherlands and Spain. For those who perceive their job as insecure, the difference between the two years varies across welfare states. The intention probabilities are higher in 2011 compared with 2004 in the UK and the CEE counties, and lower in the Nordic countries and Spain. Nevertheless, by 2011 across welfare states, those who perceive their job as insecure are the least likely to intend to have another child in the near future, especially in Germany/the Netherlands and Spain. This indicates that the impact of employment security on one-child mothers' (age 30-35) short-term childbearing intentions vary across welfare states.

Figure 11 illustrates the interactions between survey year, perceived income security and countries among one-child mothers aged 25-29 and 30-35 years.[13]

For one-child mothers, aged 25-29 (Figure 11, black triangles), the intention probabilities are higher in 2011 than in 2004, regardless of the income situation, except in Germany/the Netherlands. This suggests that perceived income security have minor impact on 25-29 year old one-child mothers' childbearing plans in times of societal economic uncertainty, Germany/the Netherlands is the exception. Nevertheless, those who perceive their economic situation as constrained are less likely to less likely to intend to have a child in the near future, compared with those with a comfortable economic situation.

For one-child mothers aged 30-35 (Figure 11, grey dots), the intention probabilities, among those who perceive their economic situation as constrained, are lower in 2011 than in 2004. The difference between those with a comfortable economic situation and those with a constrained economic situation is larger in 2011, compared with 2004. This result indicates that, when faced with societal economic uncertainty, income security is an important factor for one-child mother's (age 30-35) ability to plan for an additional child in the near future. This is slightly more evident in Germany/the Netherlands and Spain, welfare states with the lowest intention probabilities in 2011.

Figure 11. Short-term intention probabilities among one-child mothers, aged 25-29 and 30-35, by perceived income security and survey years, separated by welfare states.



[13] The calculations adjust for perceived employment security, education, age of first child, and partner's labour force attachment. These variables are set at baseline.

Uncertainty and short-term childbearing intentions among one-child fathers

Table 8 displays the regression results for one-child fathers, with separate analysis by age groups 25-35 and 36-49 years.

Table 8. Logistic regression of childbearing intentions of one-child fathers, separate analysis by age groups (coefficients).

	One-child fathers 25-35 years		**One-child fathers 36-49 years**	
	Model 1	*Model 2*	*Model 3*	*Model 4*
Survey year				
Year 2004	*ref.*	*ref.*	*ref.*	*ref.*
Year 2011	-0.51 **	0.06	0.20	-0.62
Employment security				
Secure job	*ref.*	*ref.*	*ref.*	*ref.*
Insecure job	-0.13	0.37	-0.37	0.12
Unemployed	0.06	0.44	-0.47	-0.56
Other	0.47 (*)	1.00 *	-1.11 ***	-0.39
Income security				
Manageable economic situation	*ref.*	*ref.*	*ref.*	*ref.*
Comfortable economic situation	-0.04	0.12	0.20	1.06 **
Constrained economic situation	-0.43 (*)	0.41	-0.22	0.46
Age				
25-29	*ref.*	*ref.*		
30-35	0.16	0.13		
36-40			*ref.*	*ref.*
41-49			-1.39 ***	-0.85 **
Educational attainment				
Lower secondary level or less	-0.03	-0.14	0.04	-0.09
Upper secondary level	*ref.*	*ref.*	*ref.*	*ref.*
Tertiary education	0.47 *	0.56 *	0.28	0.24
Age of first child				
Under 3 years	*ref.*	*ref.*	*ref.*	*ref.*
3-6 years	-0.23	-0.18	-0.67 *	-0.72 **
7-10 years	-1.10 ***	-1.11 ***	-2.12 ***	-2.18 ***
Partner's labour force attachment				
Partner in paid work	*ref.*	*ref.*	*ref.*	*ref.*
Partner not in paid work	-0.08	-0.11	0.61 *	0.49 (*)
Welfare states				
UK	*ref.*	*ref.*	*ref.*	*ref.*
DK/FI/SW	0.59	0.43	-0.31	-0.41
DE/NL	-0.62 *	-0.85 **	-0.62 (*)	-0.96 **
ES	-0.61 *	-0.68 *	-0.78 *	-0.96 **
CZ/HU/PL	-0.85 ***	-1.16 ***	-1.30 **	-1.57 ***
2011* Employment security				
2011*Insecure job		-0.96 *		
2011*Unemployed		-0.45		
2011*Income security				
2011*Comfortable economic situation		-0.38		-1.75 **
2011*Constrained economic situation		-1.91 ***		-1.36 *
Employment security*Age				
Insecure job*41-49				-2.20 *
Unemployed*41-49				-0.10
Constant	1.25 ***	0.94 **	1.08 *	0.74
Nagelkerke R Square	0.15	0.19	0.32	0.37
-2 LLR	74.43	101.31	119.92	143.05
Df	17	22	16	21
N	527	527	360	360

****p ≤0.001; **p ≤0.01; *p ≤0.05*

Employment security has no significant effect on one-child fathers' short-terms childbearing intentions, regardless of age group (Models 1 and 3), neither has income security, accept for one-child fathers (25-35 years) with a constrained economic situation. They are less likely to plan for another child in the near future, than are those with a manageable economic situation (Model 1). However, several interactions were found. For one-child fathers aged 25-35, employment security and income security interacts with survey year. For fathers aged 36-49, employment security interacts with age, income security and survey year (see discussion in the next section).

The difference between welfare states, suggests that one-child fathers, regardless of age groups, in Germany/the Netherlands, Spain and the CEE countries are less likely to intend to have another child in the near future than fathers in the UK (Models 1 and 3). These differences increase when interactions are taken into account (Models 2 and 4), suggesting that institutional context have a significant impact on father's short-term childbearing intentions.

The control variables, show that high educated one-child fathers (age 25-35) are more likely to plan for another child, compared with middle educated fathers (Models 1 and 2). Educational attainment has no significant impact on 36-49 year old father, yet the gradient is similar as for the younger one-child fathers. To have a child older than three years, decreases fathers' intentions to have another child in the near future (Models 1-4). Partners labour force attachment mainly affects the short-term intentions among one-child fathers aged 36-45. Having a partner not in paid work increase the propensity to plan for another child (Models 3-4). For the younger one-child fathers, the gradient is negative though not statistically significant (Models 1-2).

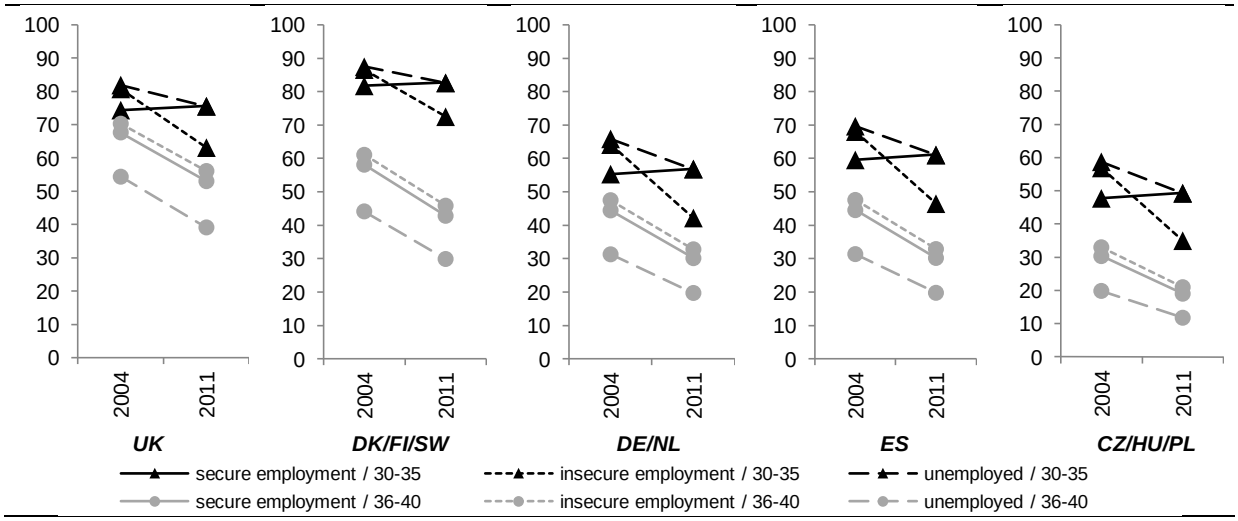
Interaction analysis: one-child fathers

Calculating probabilities for one-child fathers, taking the interactions into account (Table 8, Model 2 and Model 4), the patterns between secure job, insecure job and unemployed is similar across welfare states (Figure 12). This is because no interactions were found in this regard, suggesting that the relative employment situation for one-child fathers may be similar across different welfare regimes.

For one-child fathers (aged 30-35) in 2011, those who perceive their job as insecure were the least likely planning for an additional child. This is slightly more evident among the one-child fathers in the CEE countries. Considering the unemployed, the intentions

probabilities are lower in 2011 compared with 2004, yet the difference is only marginal when compared to those who perceive their job as secure.

Figure 12. Short-term intention probabilities among one-child fathers, aged 30-35 and 36-40, by perceived job security and survey years, separated by welfare states.



For one-child fathers aged 36-40, regardless of employment situation, the intentions probabilities are lower in 2011 compared with 2004, especially for the unemployed and among the fathers in the CEE countries (Figure 12). The results suggest that fathers (age 36-40) are less inclined to plan for an additional child in times of societal economic uncertainty, especially if unemployed. This is most evident in the CEE countries.

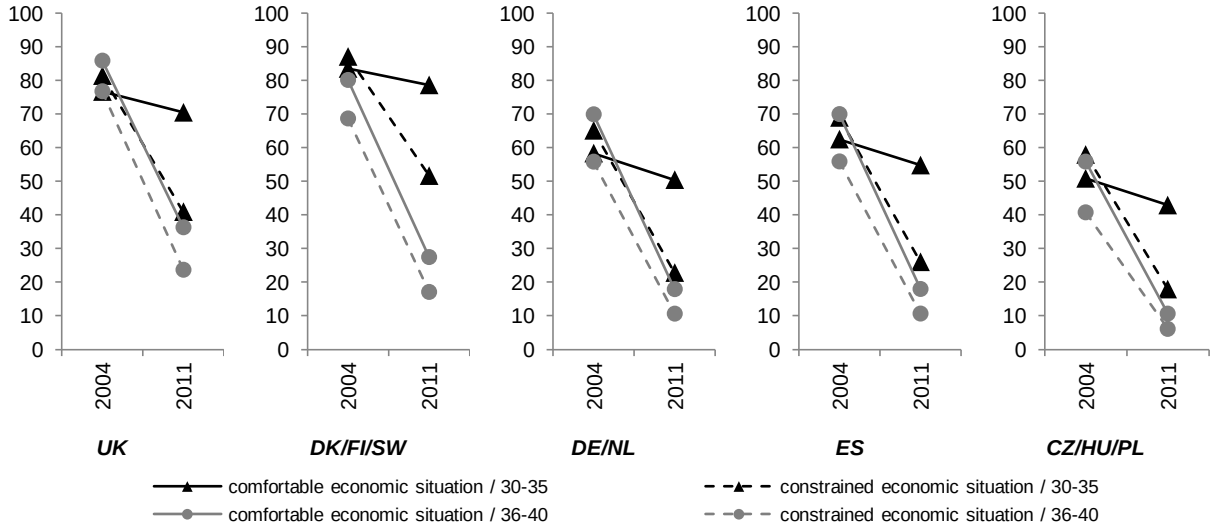
Figure 13 illustrates the interactions between survey years and perceived income security, across welfare states, among one-child father aged 30-35 and 36-40.[14] Again, we found no significant interactions in regard to welfare states, which explain the rather similar patterns in regard to job security across the welfare states, yet there are clear differences between the two years.

For one-child fathers, aged 30-35 (Figure 13, black triangles), the difference in intention probabilities in 2004 between those who perceive their economic situation as comfortable and those who perceive their economic situation as constrained is rather small. In 2011, the difference is larger. This indicates that income security is much more important for one-child fathers (age 30-35) in times of societal economic uncertainly, especially in the CEE countries where the intentions probabilities are the lowest. For one-child fathers, aged 36-40, we find a similar pattern, with lower intention probabilities in 2011 compared with 2004, regardless of

[14] The calculations adjust for perceived employment security, education, age of first child, and partner's labour force attachment. These variables are set at baseline.

the economic situation. In addition, those who perceive their economic situation as constrained are less likely to intend to have another child within the next three years, than are those who perceive their economic situation as comfortable, but the difference between these groups is minor. This suggests that societal economic uncertainty may have greater impact on future child plans among one-child fathers, (age 36-40) than perceived income insecurity, especially in the CEE countries, seen in the lowest intention probabilities among those who perceive their economic situation as constrained.

Figure 13. Short-term intention probabilities among one-child fathers, aged 30-35 and 36-40, by perceived income security and survey years, separated by welfare states.



Summary and conclusions

This study have examined the interplay between societal economic conditions, individual economic uncertainty and men's and women's short-term childbearing intentions in ten European countries, representing different welfare state configurations in regard to work-family reconciliation policies and fertility regimes. As argued, the economic situation is an important factor not only for people's economic well-being, but also in relation to childbearing plans, as short-term intentions reflect the perception of effective options and constraints in regard to present situation and future prospects. Therefore, economic uncertainties can constrain men and women's capabilities to make childbearing plans.

The aggregated analysis of short-term childbearing intentions in ten European countries in relation to changes in societal unemployment and employment protection legislation revealed that societal changes in terms of economic uncertainty impact on short-term

childbearing intentions across welfare states, but the association varies by gender and parity. Childless men and one-child fathers and are the ones responding most to changes in unemployment risks, while job protection matters mainly for one-child mothers and childless men's childbearing plans.

The individual level analyses reveal variations across welfare states, age gender and parenthood status. However, the general tendencies, among the age groups most likely to intend to have a(nother child) within the next three years, are that the employment situation is an important factor in regard to men and women's childbearing intentions. In times of societal economic uncertainty, job insecurity clearly constrains the capability to plan for children in the near future for several groups;

- Childless women (25-29 years), especially in the UK.
- Childless women (30-34 years) in the UK.
- Childless men (30-35 years), especially in Germany and the Netherlands.
- Childless men (36-40 years), especially in the UK.
- One-child mothers in Germany, the Netherlands and Spain.
- One-child fathers (30-35), especially in the CEE countries.

Also unemployment is an obstacle for future childbearing plans in among several groups when the societal economic situation is uncertain;

- Childless women (25-29) in Spain.
- Childless women (30-35) in the CEE countries.
- Childless men (36-40), especially in the UK.
- One-child mothers, especially in Germany, the Netherlands and Spain.
- One-child fathers (36-40 years), especially in the CEE-countries.

The impact of income security on short-term childbearing intentions, in times of societal economic uncertainty, is more diverse. Constrained economic situation mainly affects the short-terms intentions among

- Childless men (30-35 years), especially in the UK.
- One-child mothers (25-29) in Germany and the Netherlands.
- One-child mothers (30-35 years), especially in Germany and the Netherlands, and Spain.
- One-child fathers, especially in the CEE countries.

Income security seems to have limited impact on childbearing intentions for childless women (regardless of age) and childless men (36-40). This indicates that the impact of employment

security and income security on short-term childbearing intensions is not universal to the same extent as employment security, but varies by age, gender, parenthood status and institutional context.

For instance, childless women (regardless of age) and childless men (36-40 years) in the UK with an insecure employment and income, display among the lowest intention probabilities across the welfare states included in the study. This welfare state has fairly low institutional support for work-family reconciliation and expensive childcare, mainly on part-time basis, reflected in the comparatively low maternal employment rates for mothers of pre-schoolers. These factors combined with an increased unemployment and weak employment protection legislation, may explain why childless men and childless women in the UK are the most hesitant to plan for a child in the near future.

One-child parents the very low fertility regimes (Spain, Germany and the Netherlands, and the CEE countries), unemployed and those with an insecure job and insecure income, have among the lowest intention probabilities across the welfare states. In Spain, difficulties entering the labour market due to high unemployment coupled with relatively weak work-family reconciliation policies, especially for those with temporary contracts, and relatively weak job protection for mothers on parental leave[15], can explain why unemployed one-child mothers and those with an insecure job and insecure income are less likely to intend to have a(nother) child in the near future. In Germany and the Netherlands, the impact of individual economic uncertainty on short-term childbearing intentions can be linked to difficulties combining work and family life, more in general terms, and the shortage and increased costs of childcare, which can result in lower childbearing intentions among one-child mothers especially when faced with job insecurity and unemployment. The low intention probabilities among fathers in Spain and the CEE countries may be linked to an institutional context that promote a more traditional gender division of work and care, hence fathers with a highly uncertain economic situation in terms of employment security and income security may feel less capable providing for an even larger family.

These results have shown that economic security is an important factor in the family building process, especially in times of societal economic uncertainty, but that the interplay between societal economic uncertainty and employment security varies across welfare states, gender, age and parenthood status.

[15] In Spain, the entitlement to return to the same job position after the parental leave is only protected during the first year (Moss 2012)

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