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UNIVERSITY OF SOUTHAMPTON

FACULTY OF SOCIAL AND HUMAN SCIENCES

Division of Social Statistics and Demography

**Repartnering dynamics and fertility in new partnerships in Europe
and the United States**

by

Paulina Barbara Gałężewska

Thesis for the degree of Doctor of Philosophy

January 2016

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ABSTRACT

FACULTY OF SOCIAL AND HUMAN SCIENCES

Social Statistics and Demography

Thesis for the degree of Doctor of Philosophy

REPARTNERING DYNAMICS AND FERTILITY IN NEW PARTNERSHIPS IN EUROPE AND THE UNITED STATES

Paulina Barbara Gałęzewska

This thesis is motivated by the wide family changes which started in the 1960s in Europe and the United States. In light of the process of the deinstitutionalisation of marriage, the thesis examines the role of increasing marital instability and rising prevalence of cohabitation in repartnering and fertility after union dissolution. The thesis has three objectives: (i) to provide detailed description of the state of women's repartnering dynamics by union type in Europe and the US, (ii) to examine the role of women's demographic characteristics in repartnering behaviour in 14 European countries, and (iii) to assess the effect of mothers' partnership history on continued childbearing following separation. The objectives of this thesis are addressed by using the Harmonized Histories and employing demographic approach (life-table estimates) and statistical methods (discrete-time hazard models).

Findings regarding objective (i): The results show an increase in women's repartnering levels across birth cohorts, however, substantial cross-national difference exists. Repartnering starts predominantly with cohabitation, yet countries differ significantly in the pace at which repartnering occurs. There is a strong positive association between the level of union dissolution and the pace of repartnering in Europe and the US. The proportion of women who repartner within 5 years after first union dissolution is similar or slightly higher for previously cohabiting women than for divorcees.

Findings regarding objective (ii): Women's age and presence of children at union dissolution have strong negative effects on repartnering in all European countries. First union type has no significant effect on repartnering. The variation in micro-level demographic characteristics does not fully explain the cross-national differences in repartnering behaviour in Europe. More research

on the role of macro-level factors in explaining cross-national differences in repartnering is needed.

Findings regarding objective (iii): The union type in which women entered motherhood does not matter for continued childbearing after separation. Current union status is significantly associated with mothers' birth risks after dissolution of first fertile union. Currently cohabiting women have significantly lower birth risks after separation than currently married mothers. The birth risks of currently married or currently cohabiting mothers do not depend on the type of union in which women entered motherhood. The results indicate that despite increases in cohabitation childbearing is still associated with marriage.

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DECLARATION OF AUTHORSHIP

I, Paulina Barbara Gałęzewska declare that this thesis entitled

‘Repartnering dynamics and fertility in new partnerships in Europe and the United States’

and the work presented in it are my own and has been generated by me as the result of my own original research. I confirm that:

1. This work was done wholly or mainly while in candidature for a research degree at this University;
2. Where any part of this thesis has previously been submitted for a degree or any other qualification at this University or any other institution, this has been clearly stated;
3. Where I have consulted the published work of others, this is always clearly attributed;
4. Where I have quoted from the work of others, the source is always given. With the exception of such quotations, this thesis is entirely my own work;
5. I have acknowledged all main sources of help;
6. Where the thesis is based on work done by myself jointly with others, I have made clear exactly what was done by others and what I have contributed myself;
7. None of this work has been published before submission

Signed:.....

Date:.....

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Definitions and Abbreviations

BSPS	British Household Panel Study
EFES	(Polish) Employment, Family and Education Survey
FFS	Fertility and Family Surveys
GGG	Generation and Gender Survey
LAT	Living apart together
NLD	The Netherlands
NOA	“Needs, Opportunity and Attractiveness” framework
NSFS	(US American) National Survey of Family Growth
SDT	Second Demographic Transition
SFS	Spanish Fertility Survey
TDR	Total Divorce Rate
UK	The United Kingdom
US	The United States of America

I. Introduction

I.1 Background

Wide social changes starting in the 1960s (Lesthaeghe 1995, Van de Kaa 1987) have changed family patterns in Western societies: marriage rates have decreased, non-marital cohabitation has risen and unions have become increasingly unstable often ending in divorce or separation. The institution of marriage, in particular, has undergone profound changes regarding its meaning and role in individuals' lives (Amato et al. 2007, Cherlin 2004, Coontz 2004, Giddens 1992, Thornton et al. 2007). With increasing female labour market participation, and thus rising financial independence from a husband's income, for women the financial benefits from marriage, mainly gained from specialization (Becker 1991), have decreased. At the same time, a rise in individualistic values and the importance of self-fulfilment and self-development have altered the character and expectations of a marriage (Cherlin 2004, 2009, Giddens 1992, Lesthaeghe 1995). Marriage has become increasingly deinstitutionalized (Cherlin 2004), and is now one among many options of living arrangements. It no longer structures individuals' lives, as it is not necessarily a life-long commitment and its predominance as a normative setting for intimate sexual relationship and parenthood has declined over time (Amato et al. 2007, Cherlin 2009, Coontz 2004, Thornton et al. 2007).

Yet, in most countries, marriage is by no means an out-dated institution¹ and remains the preferred family arrangement (Pongracz and Spéder 2008); merely, the cultural ideal of a "companionate marriage" has transformed to an "individualized marriage" (Cherlin 2004, p. 852). Intimate relationships are now

¹ Statement based on the percentages of disagreement to the question "is marriage an out-dated institution" asked in World Values Surveys (online database).

constantly evaluated regarding the level of personal satisfaction that they provide (Giddens 1992, Cherlin 2004); partnerships which are not sufficiently rewarding are increasingly likely to end in dissolution. Particularly, the liberalization of divorce laws as well as weakening social stigma has made termination of marriage easier (Cherlin 2004, Giddens 1992). Generally, marital unions are nowadays dissolved for less severe reasons than they were in the past (de Graaf and Kalmijn 2006). However, paradoxically, increasing divorce rates must not necessarily be viewed as a rejection of the institution of marriage but rather as a manifestation of a strong desire for a fulfilling and satisfying marital union (Giddens 1992, Cherlin 2004).

Corresponding to the changing institution of marriage, alternative family arrangements have gradually increased in prevalence and legitimacy (Cherlin 2004, Kiernan 2002, 2004a, b, Lauer and Yodanis 2010).² Cohabitation may offer many benefits similar to those of marriage, such as companionship, intimacy and emotional support while, at this same time, its less formal character reduces the pressure on its persistence (Blanc 1987) and the dissolution costs. With rising occurrence of non-marital unions and childbearing to cohabiting couples (Bumpass and Lu 2000, Kennedy and Bumpass 2008, Kiernan 2004b, Perelli-Harris et al. 2012), numerous typologies, mainly based upon duration of the union, attitudes towards marriage, intention to marry and childbearing behaviour, have been proposed to describe the role of cohabitation in family formation processes (e.g. Heuveline and Timberlake 2004, Hiekel et al. 2014, Prinz 1995, Villeneuve-Gokalp 1991). The ideal types distinguish often, with some typology-specific variations, between cohabiting unions being prelude to marriage, testing period before marriage, alternative to marriage, and alternative to single. Another line of research has compared cohabitation and marriage. Cohabiting unions tend to be less stable than marital unions (Andersson 2002, 2003, Bramlett and Mosher 2002, Heuveline et al. 2003) and cohabiting women have been shown to differ from married women in a numerous aspects, such as gender-role and family attitudes (e.g. Clarkberg et al. 1995, Lesthaeghe 2010), allocation of time in paid and unpaid

² Recently, many scholars have also discussed the role of legalization of homosexual relationships in the process of deinstitutionalisation of marriage (Cherlin 2004, Lauer and Yodanis 2010).

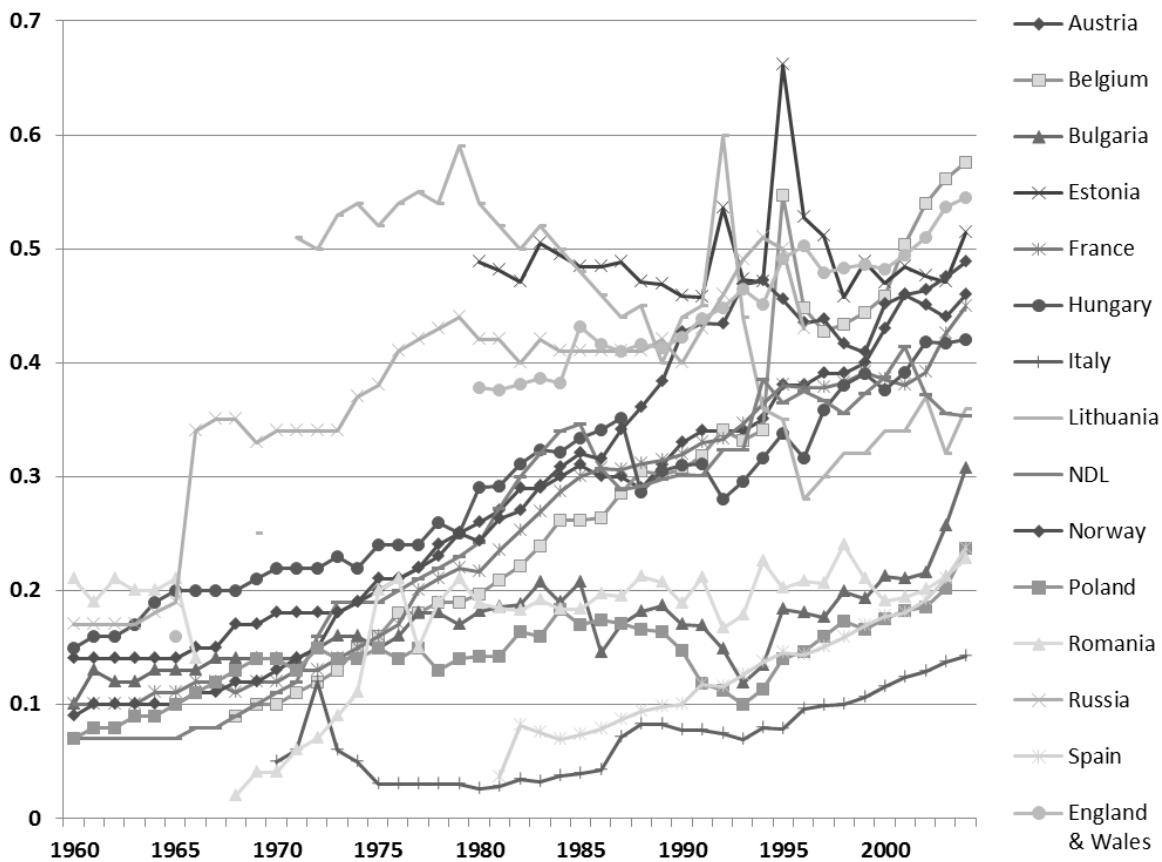
work (Bianchi et al. 2014), resource pooling (Lyngstad et al. 2011), subjective well-being (Soons and Kalmijn 2009), relationship quality (Wiik et al. 2009) and fertility (e.g. Andersson and Philipov 2002, Kiernan 2002, Perelli-Harris 2014, Wu and Musick 2008).

The deinstitutionalisation of marriage, specifically increasing divorce rates accompanied by a rising prevalence of less stable cohabiting unions has changed both family dynamics at the macro level (Sobotka 2008, Sobotka and Toulemon 2008) and individuals' family-life trajectories (Brückner and Mayer 2005, Elzinga and Liefbroer 2007). First, increasing union instability means that many individuals re-enter the partner market and may eventually form a new marital or cohabiting union (Ganong et al. 2006, Wu and Schimmele 2005). Also, given the shift from long(er) marriages to short-lived cohabitation, serial partnerships are likely to become more frequent (Bukodi 2012, Cohen and Manning 2010, Lichter and Qian 2008, Lichter et al. 2010). Second, since partnership history is strongly related to fertility, changes in union status may affect childbearing. On the one hand, divorce or separation interrupts individual's fertility career which may result in a smaller number of children than desired. On the other hand, repartnering often poses an opportunity for childbearing, which suggests that fertility decisions may be increasingly taken across partnerships (Thomson et al. 2014).

Cross-national differences

Nevertheless, although Western societies follow this same trend towards a greater deinstitutionalisation of marriage, countries differ substantially in the extent and the pace at which these changes have occurred (Sobotka and Toulemon 2008, Kalmijn 2010, Billari and Liefbroer 2010). Figure I.1 shows changes in the total divorce rates across Europe since 1960. Despite a general increase, divorce is much more wide-spread in Western and Northern Europe than in Southern and most Eastern European countries. Parallel, with rising prevalence of divorce, cohabitation has become more common, although the trends and the explanations of how these two phenomena may be linked vary across countries (Perelli-Harris et al. 2015). Figure I.2 demonstrates the differences in the diffusion of cohabitation measured by the percentage of cohabiting couples among all couples in selected European countries. Similarly

Figure I.1: Total divorce rate

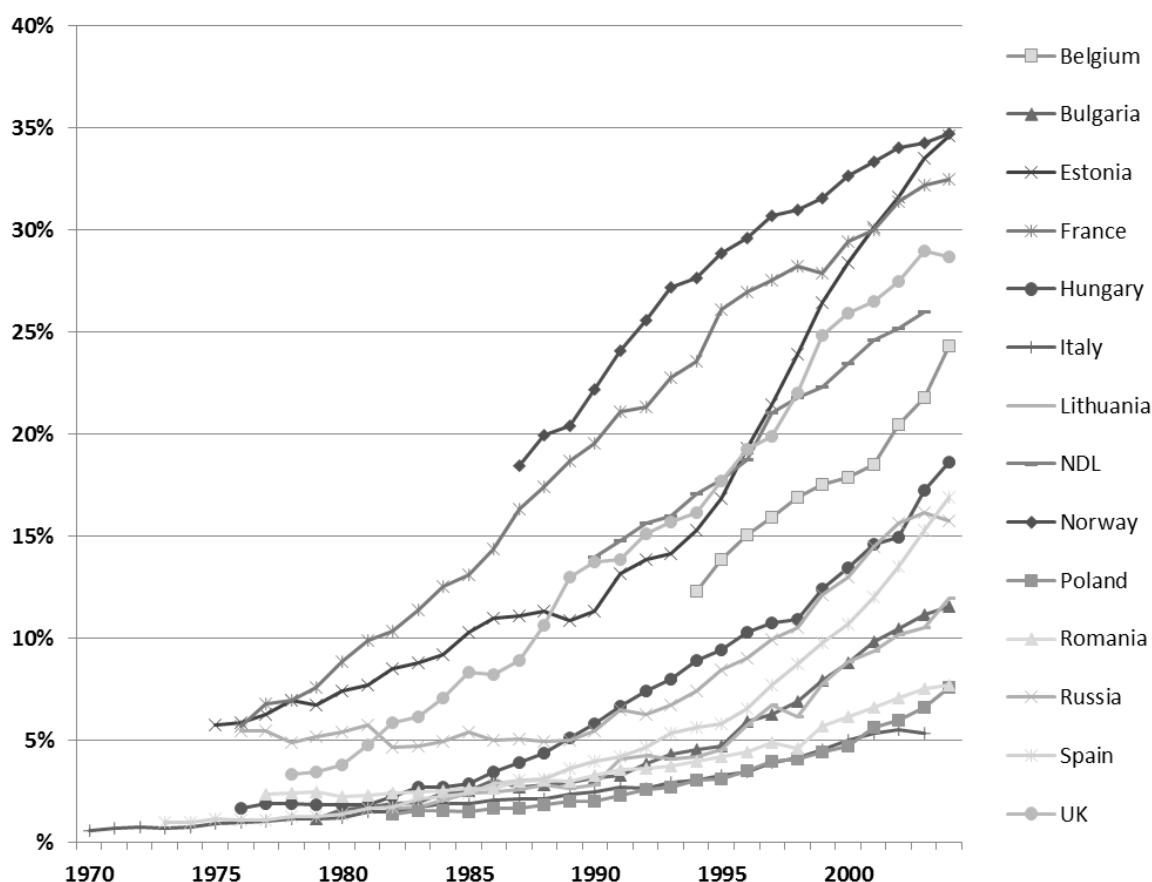


Data source: Spijker (2012). Divorce Atlas.

to divorce, Western and Northern Europe shows higher levels of cohabitation than the rest of the continent.

In addition, a large body of literature has demonstrated substantial differences in partnership behaviour between Europe and the United States (Andersson 2003, Cherlin 2009, Heuveline et al. 2003, Raley 2001). Generally, American families are characterised by a higher number of transitions in family life, which is reflected in much more unstable cohabiting unions, usually also of a shorter duration, and higher divorce and repartnering rates than in European countries (ibid.).

Figure I.2: Percentage currently cohabiting women among all women in a partnership (aged 20-49)



Data source: Harmonized Histories, author's calculation.

Note: Calculations are made only for calendar years with sufficient number of women, i.e. at least 50, at each single age in each calendar year. The beginning of the time series varies across countries because surveys differ in the number of people interviewed at each age. The number of women in each age group and calendar year were obtained using Lexis diagram.

Some researchers have suggested that existing differences are only of a temporary nature, as they result from different onsets of family changes, and are likely to disappear in the future when the trends converge (Billari and Liefbroer 2010). In contrast, other scholars have argued that long-term cultural traditions (Hajnal 1965, 1982, Reher 1998), variations in welfare state policy (Esping-Andersen 1990, 1999), family related policies (Perelli-Harris and Sánchez Gassen 2012) and political history (Thornton and Philipov 2009), may make a convergence in the family demographic regimes rather unlikely. Nonetheless, regardless of the future developments, family patterns, i.e. the timing, the type and the stability of partnerships, vary considerably across Western societies. Numerous studies have documented changes in first union

formation and dissolution observed in Europe and the US since 1960s (Andersson 2002, 2003, Billari and Liefbroer 2010, Elzinga and Liefbroer 2007, Kalmijn 2007, Perelli-Harris and Lyons-Amos 2015, Sobotka 2008, Sobotka and Toulemon 2008). Yet, despite increasing union instability, repartnering behaviour in Western societies has remained largely understudied.

I.2 Relevance of the topic

With rising union instability, an increasing number of women re-enter the partner market and may form a new union and even have children in repartnering. Irrespective of whether repartnering occurs after divorce or separation from a cohabiting partner and involves children, it has wide ranging implications for individuals, families and societies.

Individual-level perspective

On the micro-level, repartnering may, in many ways, counteract the negative consequences of union dissolution³ (Sweeney 2010). First, entering new co-residential partnership may be viewed as a way to improve the economic well-being of women and their children (de Regt et al. 2012, Dewilde and Uunk 2008, Jansen et al. 2009, Mortelmans and Jansen 2010, Ozawa and Yoon 2002). Numerous studies have shown that women experience greater economic hardship after union dissolution than men whose income, in contrast, declines only moderately or, in some countries, even improves (for review see Andreß et al. 2006). Females' financial deterioration following union disruption is attributed mainly to the presence of dependent children (custody), gender income gap and general lower labour market participation. Although economic consequences for divorced women are well documented (Andreß et al. 2006), recent research has provided evidence that cohabiting women also suffer from a non-marital union dissolution (Avellar and Smock 2005, de Regt et al. 2012, Manting and Bouman 2006). Finding a new partner has been shown to be a more efficient strategy to increase household income after union dissolution

³ A large body of literature has investigated consequences of union dissolution for adults and children (for review see Amato 2000, 2010, Amato and James 2010, Härkönen 2013).

than re-employment or increasing number of working hours (de Regt et al. 2012, Jansen et al. 2009, Manting and Bouman 2006, Mortelman and Jansen 2010).

Second, repartnering enhances psychological wellbeing (Demo and Acock 1996, Dupre and Meadows 2007, Hughes and Waite 2009, Marks and Lambert 1998, Shapiro 1996, Wang and Amato 2000). A large body of literature has documented a negative association between divorce and mental health⁴ (for review see Amato 2000, 2010, Amato and James 2010, Härkönen 2013) and more recently also with separation from a non-marital partner (Blekesaune 2008, Kamp-Dush 2013, Tavares and Aassve 2013, Williams et al. 2008, Wu and Hart 2002). Union dissolution, particularly divorce, is related to psychological distress (depression and anxiety), more risky health behaviour (substance use) and lower levels of happiness and life satisfaction. Repartnering, on the other hand, provides companionship, intimacy and social support, and reduces preoccupation with the previous partner (Wang and Amato 2000). Studies on marital unions have indicated that although the benefits of remarriage to mental wellbeing are somewhat lower than those of first marriage (Marks and Lambert 1998, Williams and Umberson 2004), divorcees who repartner show better mental health than those who remain unpartnered (ibid).

Third, repartnering poses a context for childbearing. Since women's fertility and partnership history are closely related, union dissolution implies a disruption in childbearing career. New union formation, however, enables childless women to enter motherhood and mothers to achieve their fertility intentions. In fact, some evidence has suggested that a high desire for having a common child in repartnering can indeed diminish the negative effect of union dissolution on childbearing (Beaujouan and Solaz 2013, Meggiolaro and Ongaro 2010, Thomson et al. 2012, Van Bavel et al. 2012). Although completed fertility among repartnered women tends to be slightly lower than among women in intact unions, it is still higher than among separated women who do not repartner during their reproductive years (ibid).

⁴ It is highly debatable whether the lower level of mental health among divorcees in comparison to married individuals results from causation or due to selection effects (for review, please see Amato (2000, 2010), Amato and James (2010), Härkönen (2013)).

Family-level perspective

Repartnering may have implications for families particularly if it involves children. New partnerships with pre-union children create stepfamilies which are characterised by more complex family structures often spanning multiple households (Allan et al. 2011, Sweeney 2010). Generally, stepfamilies are viewed as incompletely institutionalised as they lack norms which could govern the relationships between stepfamily members (Cherlin 2004; Cherlin and Furstenberg 1994). With the rising prevalence of non-marital unions, stepfamilies have become increasingly diverse and are now not only formed after divorce in remarriage but also by never married individuals and within cohabitation. Some studies have shown that this additional layer in the stepfamily complexity increases family boundary ambiguity meaning that family members may differ in their perception of family composition (Brown and Manning 2009, Stewart 2005, Sweeney 2010). The degree of stepfamily complexity is likely to depend on factors such as place of residence of pre-union children, custodial arrangements, parental involvement in child care to the non-resident children and ties to previous partners and grandparents (Thomson 2014).

In addition, living with a stepparent is likely to affect children's wellbeing (Coleman et al. 2000, Sweeney 2010). Generally, in comparison to children in intact families, children living in stepfamilies show somewhat worse outcomes measured by educational achievement, psychological adjustments, and cognitive and behavioural wellbeing (ibid.). The effects vary largely by the outcome measures, however.

Societal-level perspective

Repartnering is also likely to have numerous implications for society, although many of them may be directly linked with the effects already observed at the individual and family levels. First, in many settings, single motherhood is associated with a decrease in standard of living and higher risks of poverty and deprivation (Chzhen and Bradshaw 2012). Since repartnering implies the combining of households and often the pooling income, it may to a certain extent have a positive impact on poverty rates at the aggregate level.

Second, repartnering may affect attitudes and the likelihood of alternative family forms through intergenerational transmission of family behaviour. Previous research has highlighted the importance of non-traditional family behaviour in childhood on family outcome in adulthood, i.e. individuals who experience parental divorce, cohabitation or remarriage, have more favourable attitudes toward cohabitation and divorce (Amato 1996, Amato and Booth 1991, Axinn and Thornton 1996). Similarly, recent evidence has suggested that men who experienced family disruption or stepfamily in childhood are more willing and likely to enter a union with a mother (Bernhardt and Goldscheider 2002, Goldscheider and Kaufman 2006, Goldscheider and Sassler 2006). In addition, men who step-parented before are more likely to form a new stepfamily than remain single (Bernhardt and Goldscheider 2002).

Third, repartnering is likely to have implications for aggregate fertility (Thomson et al. 2012). Numerous studies have shown that in Europe and the United States newly established unions often produce an additional child (Buber and Prskawetz 2000, Griffith et al. 1985, Holland and Thomson 2011, Thomson et al. 2002b, Vikat et al. 1999, Vikat et al. 2004, Wineberg 1990). A shared child is believed to have a unique value which overcomes the costs of having a larger number of children (Thomson 2004, Vikat et al. 2004). For instance, the comparison of progression rates in new unions and in the intact unions indicates elevated risks of third and fourth births if the first two children had been born before the current union (Thomson et al. 2002b). Therefore, since many children born in repartnering constitute births of higher order, they are crucial for a country's overall fertility level (Thomson 2004).

However, it has to be acknowledged, that the broad, long-term implications of repartnering are likely to depend on the stability of the new established unions. In fact, higher order unions have been shown to be less stable than first partnerships (Booth and Edwards 1992, Brown and Lin 2012, Cherlin 1978a, Furstenberg and Spanier 1984, Teachman 2008, Thomson 2004). On the one hand, similar to first union dissolution, separation from the second partner may have negative consequences for women's and their children's economic and psychological wellbeing (Amato 2000, 2010, Cherlin 2009, Sweeney 2010). On the other hand, individuals who experience dissolution of repartnering are

at risk of serial partnerships and, particularly parents, of multipartner fertility, which have been associated with socio-economic disadvantage (Bukodi 2012, Carlson and Furstenberg 2006, Cohen and Manning 2010, Guzzo and Furstenberg 2007a,b, Lichter and Qian 2008, Lichter et al. 2010, Thomson et al. 2014).

I.3 Previous research

Despite multiple implications of repartnering for individuals, families and societies, the research on repartnering is scarce. Several studies have examined second union formation in selected single countries (Beaujouan 2012, de Graaf and Kalmijn 2003, Jaschinski 2009, Lampard and Peggs 1999, Meggiolaro and Ongaro 2008, Poortman 2007), or a few countries in comparison (Ivanova et al. 2013, Skew et al. 2009). Previous research has largely focused on the effect of the individual demographic and socio-economic characteristics on repartnering (ibid). However, little is known on the prevalence, pace and type of repartnering across Western societies. To the best of our knowledge, only one study by Prskawetz et al. (2003) has provided information on repartnering levels in cross-national comparison. The study used data collected within the Fertility and Family Surveys (FFS) in Europe in the early 1990s and described the percentage of women born 1952-59 who had formed a second union by age 25 and 35. However, given the rapid changes in family demographic behaviour, i.e. increase in cohabitation and union instability across Western societies, more detailed information on the state of repartnering dynamics is needed.

In addition, studies conducted thus far have predominantly looked at repartnering after divorce (Bumpass 1990, de Graaf and Kalmijn 2003, Ivanova et al. 2013, Jaschinski 2011, Meggiolaro and Ongaro 2008, Shafer and James 2013, Sweeney 1997, Wu 1994), while only a few have included repartnering after dissolution of cohabiting unions (e.g. Poortman 2007, Skew et al. 2009, Wu and Schimmele 2005). Yet, given the increasing prevalence of cohabitation in Western societies, individuals who experience dissolution from cohabiting first partners may constitute an increasing share of the population at risk of repartnering. Consequently, fertility decisions within repartnering may be

increasingly made by individuals who experienced dissolution of cohabiting first unions. Interestingly, despite the rise in childbearing to cohabiting parents in Europe and the US (Perelli-Harris et al. 2012), studies investigating fertility within repartnering have mainly looked at unions formed after divorce (Bumpass 1984, Griffith et al. 1985, (Ivanova et al. 2014, Jefferies et al. 2000, Meggiolaro and Ongaro 2010, Rindfuss and Bumpass 1977, Thomson et al. 2002, Thornton 1978, Vikat et al. 1999, Wineberg 1990). Childbearing following separation from a non-marital partner has been mainly examined in a few very recent studies on multi-partnered fertility which, however, have rarely distinguished between union types and often included children to single mothers (Carlson and Furstenberg 2006, Guzzo and Furstenberg 2007b, Thomson et al. 2014). Therefore, given the dramatic changes in family patterns observed in Western societies since 1960s, repartnering dynamics and fertility behaviour after non-marital union dissolution have remained widely unexplored.

I.4 Objective of the thesis

This doctoral thesis addresses the gaps identified in the literature and examines women's repartnering dynamics and mothers' continued childbearing after union dissolution in selected Western societies. The study focuses on women as they are still the main custodial parents of minor children after separation (Beaumont and Manson 2014) and because women and their children suffer greater adverse economic consequences of union dissolution than men (Andreß et al. 2006). Examining only women's partnership histories is also dictated by the availability and the quality of the data on men. First, not all surveys available in the Harmonized Histories – upon which the analyses of this doctoral thesis are based (see next section), collected information on men (e.g. Italy and Spain), and those that did, provided no information on children's place of residence for respondents who are fathers. Second, men have also been shown to give less reliable information regarding their partnership and fertility histories particularly concerning the non-residential children than women (Rendall et al. 1999).

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This thesis goes beyond previous research and, in line with the process of the deinstitutionalisation of marriage, examines the role of cohabitation and divorce in family demographic behaviour following first union dissolution. The overarching aim of this thesis is to investigate whether the type of the dissolved first union, i.e. marriage (direct or preceded by cohabitation) or cohabitation which has not been transformed into marriage, matters for second union formation and mothers' birth risk after separation. First, since cohabiting and married women have been shown to differ in a range of individual characteristics which may also affect their incentives, opportunities and constraints in the partner market, they are also likely to show different repartnering behaviour. Second, using the type of first fertile union as a proxy for contraception use and attitudes towards family, we may also expect that mothers' birth risks after union dissolution depend on the type of the union in which women entered motherhood.

This thesis adopts a cross-national approach and analyses females' repartnering behaviour in 14 European countries of which many have not been studied before. The selected European countries represent different family patterns across the continent (Reher 1998, Sobotka and Toulemon 2008) and comprise: Austria, Belgium, Bulgaria, Estonia, Hungary, Italy, Lithuania, the Netherlands, Norway, Poland, Romania, Russia, Spain and the United Kingdom. In addition, repartnering dynamics in Europe are compared to the formation of second co-residential unions in the United States. The comparative perspective is also applied, although only for five European countries, to explore the impact of partnership history on mothers' childbearing after union dissolution.

Altogether, this thesis is largely explorative and has, more specifically, three main objectives:

First, to provide detailed, most up-to-date description of the state of repartnering dynamics particularly distinguishing between marital and cohabiting co-residential second unions in contemporary Europe and the United States (Chapter III). By doing so, the thesis aims (i) to identify cross-national differences in overall repartnering levels within a particular birth

cohort, and (ii) to investigate changes in the pace of repartnering within a particular country across birth cohorts. In addition, pace of repartnering is examined by differentiating women cohabiting in first partnerships from divorcees.

Second, the thesis sheds light upon the role of women's age and the presence of children at first union dissolution in explaining repartnering behaviour in 14 European countries. For this purpose Chapter IV investigates (i) whether the effect of women's demographic characteristics on repartnering is universal across Europe, and (ii) to what extent the compositional differences in the population at risks of repartnering in terms of women's age and fertility account for cross-national differences in second union formation. In light of the process of the deinstitutionalisation of marriage, repartnering behaviour of both previously cohabiting and married women is examined.

While examining repartnering behaviour from cross-national perspective (Chapter III and IV), this thesis draws on the Need, Opportunity and Attractiveness (short NOA) framework often used in studies on repartnering (Becker 1991, de Graaf and Kalmijn 2003, Goldscheider and Waite 1986, Ivanova et al. 2013, Oppenheimer 1988). Accordingly, repartnering results from the interplay between (i) women's need to repartner, (ii) their attractiveness to a potential partner and (iii) the opportunities women face when re-entering the partner market. Each of the three components depends on the demographic and socio-economic characteristics of women exposed to repartnering and is likely to be influenced by contextual factors such as welfare policies or family and cultural norms. As a result, the effect of micro-level characteristics and macro-level factors may reinforce or counteract women's need, attractiveness or opportunity to repartner. The relationship between these three components, as argued in this thesis, may be also influenced by the type of the dissolved first unions. Although only a few aspects of the NOA framework will be empirically tested throughout this doctoral thesis, it proves valuable framework for describing the complexity of repartnering behaviour and explaining the cross-national differences in second union formation in Western societies.

The third objective of this thesis is to provide first insights into one important aspect related to union dissolution and repartnering, namely

mothers' continued childbearing after separation. Chapter V investigates the role of women's partnership history on having a child after dissolution of first fertile union in five European countries. The investigation of mothers' continued childbearing after union dissolution is based upon the empirical observation that around a half of new established unions produces children (Buber and Prskawetz 2000, Griffith et al. 1985, Holland and Thomson 2011, Thomson et al. 2002b, Vikat et al. 1999, 2004, Wineberg 1990). Couples may decide to have a shared child in order to (i) to strengthen their relationship (union commitment effect), (ii) to become a parent if one of the partners is childless (parenthood effect), and/or (iii) to give the pre-union child(ren) a brother or a sister (sibling effect) (Griffith et al. 1985). However, in line with the process of the deinstitutionalisation of marriage, attention is paid to the effect of the type of first fertile union and the subsequent partnership status and their interrelationship on mothers' birth risk following separation.

I.5 Data and methods

All analyses in this doctoral thesis are conducted using Harmonized Histories, the most up-to-date, cross-national data set created by the team of "The Non-marital Childbearing Network" (for more details, see www.nonmarital.org). Harmonized Histories contains cleaned, harmonized and highly comparable retrospective fertility and partnership histories collected from women within various surveys in 14 European countries and the United States (Perelli-Harris et al. 2010b). The data represent different family patterns across Europe (Reher 1998, Sobotka and Toulemon 2008) and covers the following European countries: Austria (GGS 2008/09), Belgium (GGS 2008/10), Bulgaria (GGS 2004), Estonia (GGS 2004), France (GGS 2005), Hungary (GGS 2004), Italy (GGS 2003), Lithuania (GGS 2006), Netherlands (FFS 2003), Norway (GGS 2007), Poland (EFES 2006, GGS 2010/11), Romania (GGS 2005), Russia (GGS 2004), Spain (SPS 2006), and the United Kingdom (BHPS 2005). The information on the United States comes from the National Survey of Family Growth (1995, 2007). In addition to partnership and fertility histories, Harmonized Histories includes also respondent's highest level of education and some background information, for instance, parental home characteristics, ethnicity and religion.

The objectives of this thesis are addressed using demographic and statistical methods. To examine repartnering dynamics in Europe and the US, the descriptive demographic approaches of cumulative percentages and life-tables techniques are used (Chapter III). Furthermore, event history analysis is employed to analyse cross-national differences in repartnering (Chapter IV) and continued childbearing behaviour after union dissolution (Chapter V). Chapter IV uses discrete-time hazard models to investigate repartnering risks, i.e. formation of second co-residential union for women who experienced first union dissolution in each country separately and for pooled dataset of 14 European countries. This same methodological approach (single-country models) is also adopted for examining mothers' birth risks after union dissolution in Estonia, France, Norway, Russia and the UK (Chapter V). More detailed information on the data set, analytical samples and methods are provided in the separate empirical chapters (Chapter III-V).

I.6 Outline of the PhD thesis

The thesis begins by presenting the relevant literature related to women's repartnering (Chapter II). First, background information on the deinstitutionalisation of marriage and on cross-national differences in family demographic behaviour is provided. Second, existent international research on the demographic and socio-economic determinants of women's repartnering is reviewed. Third, the relevant findings from the literature review on repartnering are discussed within the concept "Need, Opportunities and Attractiveness". Fourth, empirical findings related to fertility within repartnering are summarised. Chapter III – V present empirical findings of this doctoral thesis on repartnering dynamics and continued childbearing within repartnering across Western societies:

- Chapter III: Changing dynamics of repartnering in contemporary Europe and in the United States
- Chapter IV: The role of individual demographic characteristics in explaining cross-national differences in repartnering in Europe
- Chapter V: The role of partnership context in mothers' continued childbearing after union dissolution in five European countries

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Chapter VI summarises the main findings from empirical Chapters III-V and acknowledges the general limitations of the thesis. In addition, the original contributions of the thesis to the knowledge are presented. Finally, the relevance of the main results of this thesis is discussed and placed within the wider theoretical and empirical context.

II. Literature review

Summary

The chapter begins by distinguishing repartnering from first unions. In the next step, the theoretical framework for the analysis of repartnering behaviour is presented. In line with the concept of the “deinstitutionalisation of marriage”, it is argued that increasing divorce rates and the rising prevalence of cohabitation coupled with the changing character of marriage, are likely to influence the dynamics and meaning of repartnering (II.2). However, as Western societies differ in the timing of the onset of family changes, as well as in cultural and institutional settings, repartnering behaviour may vary considerably across countries. Thus, section II.3 focuses on family patterns in Europe and the United States and provides insight into the variation in country-specific context. The following section II.4 reviews existent international research on demographic and socio-economic determinants of women’s repartnering. The next section II.5 discusses the relevant findings from the literature review on repartnering within the concept “Need, Opportunities and Attractiveness” (short NOA) which may provide a particularly useful framework for explaining cross-national differences in repartnering. Section II.6 reviews relevant literature on an important aspect related to repartnering, namely childbearing in higher order unions.

II.1 Repartnering vs. first partnerships

With increasing divorce rates, repartnering has become more common, especially the prevalence of stepfamilies, as many divorcees entering a new union (or their partners) may have children from a previous relationship. However, repartnering is likely to differ from the first union formation. Generally, first partnership, particularly marriage, is believed to be a “marker in a process of becoming adult” (Bumpass et al. 1990, p.747). It is associated with a long-term commitment, establishing an independent household, and childbearing. These aspects are often less relevant in a second union formation. Individuals entering first unions and those who repartner are claimed to differ in their needs as these might have been changed by the first partnership (de Graaf and Kalmijn 2003). For instance, the desire to have children is likely to play a smaller role in entering a second union since many separated women are already mothers. However, since union dissolution, particularly divorce, has wide-ranging consequences for the economic, emotional and physical well-being of adults and their children (Amato 2000, 2010, Härkönen 2013, Sweeney 2010), repartnering, in many cases, is viewed as a way to increase psychological well-being and to counteract economic deterioration following marital breakdown (de Regt et al. 2012, Dewilde and Uunk 2008, Jansen et al. 2009, Ozawa and Yoon 2002, Shapiro 1996, Wang and Amato 2000).

Furthermore, the partner market of individuals who have experienced union dissolution is more restricted and less efficient than that of individuals exposed to first union formation (de Graaf and Kalmijn 2003). On the one hand, individuals at risk of entering first and higher order unions are likely to differ in their opportunities to find a partner. Given that divorcees are older when they re-enter the partner market, their pool of potential (single) partners is smaller than that of individuals who are at risk of first union formation. Furthermore, divorcees are likely to be less socially integrated (Kalmijn and van Groenou 2005), and less involved in the partner markets typical for individuals entering first union; while for first partnerships, school or leisure locations are the main partner markets (Kalmijn 1998), workplace and social networking seem crucial for repartnering (de Graaf and Kalmijn 2003). On the other hand, since divorcees are likely to have children from previous unions they may appear less attractive to a potential partner than never partnered individuals.

Also, given higher age at union dissolution and men's preferences to partner with younger women (England and McClintock 2009, Ní Bhrolcháin 1992) divorced women are more disadvantaged in the partner market than women exposed to first union formation. Moreover, in some settings divorce may be stigmatised which additionally reduces repartnering chances (Gerstel 1987).

Finally, from the sociological point of view, it has been argued that second union, particularly remarriage, is an incomplete institution as it lacks behavioural norms that could guide stepfamily members in creating and sustaining a relationship to each other (Cherlin 1978b, 2004, Cherlin and Furstenberg 1994). Unlike first marriages, second unions, especially stepfamilies, often have a more complex family structure (Allan et al. 2011, Cherlin and Furstenberg 1994, Macdonald and Demaris 1995, Thomson 2014). The challenge for repartnered couples is to maintain not only a family unit comprising a biological parent, stepparent, pre-union and possibly joint children, but also relationships to a non-residential biological parent, and in some cases to a previous spouse. Most notably, repartnering is less institutionalised than the first marriage, in terms of the role of the stepparent and the child's relationship to step-grandparents (Cherlin and Furstenberg 1994). In addition, negative stereotyping of stepparents (Ganong et al. 1990) and insufficient legal regulations governing stepparents rights and obligations are common issues (Fine 1998, Fine and Fine 1992). A greater complexity of family structure in remarriage constitutes the main risk factor for dissolution. Existing literature provides evidence that second marriages are more fragile than first marital unions (Booth and Edwards 1992, Cherlin 1978, Teachman 2008); remarriages end more frequently in divorce, and typically after a shorter duration.

II.2 Deinstitutionalisation of marriage

II.2.1 Changing meaning of marriage

In Western societies over the last few decades, the institution of marriage has undergone profound changes regarding its meaning and role in individuals' lives (Amato et al. 2007, Cherlin 2004, Coontz 2004, Giddens 1992, Thornton et al. 2007). From the beginning of the 1960s onwards, increases in

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employment and financial independence for females, together with changes in the division of labour in the home, have decreased the traditional benefits of marriage (Cherlin 2004), i.e. gained from specialisation (Becker 1991). Moreover, a stronger emphasis on intimate romantic relationships, self-development and the flexibility of spousal roles have caused a transition in the cultural ideal from the “companionate” to the “individualized” marriage (Cherlin 2004, p. 852, 2009, Giddens 1992, Lesthaeghe 1995). As a result, marriage has become increasingly deinstitutionalised losing its supremacy as a setting for intimate sexual relationship and childbearing (Amato et al. 2007, Cherlin 2009, Coontz 2004, Thornton et al. 2007). Since marriage now rarely poses a life-long commitment, it does not structure individuals’ lives any longer.

Nevertheless, it seems that marriage is not an out-dated institution. The “symbolic significance of marriage” has remained high (Cherlin 2004, p. 855). However, individuals’ expectations of marriage have changed; marital unions are now a constant subject of evaluation regarding the level of personal satisfaction that they provide (Giddens 1992, Cherlin 2004). Marriages which do not satisfy emotional or personal needs increasingly dissolve. Weakening normative barriers and liberalization of divorce laws have made termination of unfulfilling marriages easier (Cherlin 2004, Giddens 1992). Indeed, marital unions nowadays are dissolved increasingly for relational and psychological rather than severe reasons (de Graaf and Kalmijn 2006). Thus, paradoxically, increasing divorce rates may not necessarily indicate the rejection of the institution of marriage but rather a manifestation of a strong desire for a fulfilling and satisfying marital relationship (Giddens 1992, Cherlin 2004).

II.2.2 Rise in cohabitation

Parallel to the changes in institution of marriage and rising marital instability, cohabitation has spread and become a socially accepted family arrangement in Western societies (Cherlin 2004, 2009, 2010, Kiernan 2001, 2002, 2004a, Prinz 1995). Some studies have suggested that historically, in many countries, non-marital unions were more frequent among previously married (divorcees or widowers) than among never-married individuals particularly when divorce was stigmatized or difficult to obtain and marriage unaffordable (e.g. in the US: Bumpass and Sweet (1989), Bumpass et al.(1991), in the UK: Haskey (1995),

Kiernan and Estaugh (1993), in France: Villeneuve-Gokalp (1991), in Hungary: Spéder (2005)). Furthermore, the changing character of marriage and increasing marital instability may have implications for choosing cohabitation as a second union. In fact, a few studies have provided some evidence that second unions more often begin with cohabitation than with direct marriage (e.g. in Sweden and Norway: Blanc 1987, in the UK: Kiernan and Estaugh 1993, in the Netherlands: Poortman 2007, in Canada: Wu and Schimmele 2005).

Preferences for a certain type of relationship are likely to change through the first marriage and the subsequent divorce (de Graaf and Kalmijn 2003). Some evidence suggests that divorcees may learn from their experience, and become more cautious about entering into and committing themselves to a new union (Poortman 2007). Consequently, starting a second union which is cohabitation is often preferred; non-marital unions may involve less risk as they are generally considered to have a lower emotional investment (Wiik et al. 2009) and a weaker economic consolidation (Lyngstad et al. 2011). On the other hand, post-marital cohabitation offers many benefits which are similar to those from remarriage, without the high expectations of its persistence and stability (Blanc 1987) and the legal constraints of marriage (Perelli-Harris and Sánchez Gassen 2012). Although many post-marital cohabiting unions are a stage in the remarriage process (Bumpass and Sweet 1989), studies have indicated that the increasing prevalence of consensual unions accounts for the general decline in remarriage rates observed from the early 1980s (Blanc 1987, Bumpass et al. 1991).

The changing institution of marriage and increasing divorce rates alongside the rise in post-marital cohabitation may have changed first partnership formation (Cherlin 2004, Kiernan 2002, Kiernan and Estaugh 1993, Prinz 1995, Spéder 2005). In fact, from the early 1980s, cohabitation among never-married individuals has become increasingly common and socially accepted, in some settings, constituting even a normative living arrangement for a first union (Bumpass and Sweet 1989, Cherlin 2004, 2009, Kiernan 2002, 2003, 2004b, Seltzer 2000, 2004, Smock 2000). Depending on duration, stability and childbearing behaviour, cohabiting first unions may be considered a trial marriage, alternative to marriage or alternative to being single (Heuveline and Timberlake 2004, Rindfuss and VandenHeuvel 1990,

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Villeneuve-Gokalp 1991). Irrespective of the meaning and function of cohabitation, the rising prevalence of non-marital first partnerships has resulted in the postponement of marriage and decrease in first marriage rates (Sobotka and Toulemon 2008).

Some evidence has suggest that cohabitation may gradually develop towards a "marriage-like" relationship (Heuveline and Timberlake 2004, Smock 2000), which is particularly reflected in increasing childbearing within cohabiting unions (Kennedy and Bumpass 2008, Kiernan 2001, 2004b, Perelli-Harris et al. 2012, Raley 2001). Generally, cohabitation has lengthened in duration providing a more stable environment for raising children (Kennedy and Bumpass 2008), and the acceptance of non-marital childbearing has increased over time (Thornton and Young-DeMarco 2001). Also, as children born to cohabiting parents have gained the same rights as those born within marriage, cohabitation has become gradually legally regulated (Perelli-Harris and Sánchez Gassen 2012). The trend in the law towards providing more rights and responsibilities to cohabiting couples has decreased the social and financial benefits of marriage (ibid.). Thus, not only do cohabiting couples increasingly decide to have a child without entering marriage but also single women having a non-marital conception opt more often for a cohabitation rather than a shot-gun marriage (Berrington 2003, Lichter 2012, Perelli-Harris et al. 2012, Raley 2001).

On the other hand, studies in the US and Europe have shown that cohabitation is considerably more fragile and of a shorter duration than marriage (Andersson 2002, 2003, Bramlett and Mosher 2002, Cherlin 2009, 2010, Kiernan 2002, 2003, Smock 2000). While a large, yet over time decreasing, proportion of cohabiting unions is converted into marriage, a significant share ends in separation (Bumpass and Lu 2000, Bumpass and Sweet 1989, Wu and Balakrishnan 1995), even if children are involved (Andersson 2002, Heuveline et al. 2003, Toulemon 1995). It seems that marriage has remained the predominant setting for raising children as most women who conceived their first child within cohabitation eventually marry their partner (Perelli-Harris et al. 2012). It is likely that many cohabiting couples jointly plan marriage and childbearing albeit the ordering of cohabitation, marriage and childbearing may increasingly vary, with marriage

often occurring later in a family formation process (Musick 2007, Wu and Musick 2008). However, American studies imply that childbearing within cohabitation is not always a deliberate decision (Musick 2002); almost a half of children (46%) born to cohabiting mothers, compared to one in five children born to married women in the US, are unintended. Additionally, a significant proportion of births in cohabitation result from the shift from shot-gun marriage into shot-gun cohabitation (Berrington 2003, Lichter 2012, Perelli-Harris et al. 2012, Raley 2001). Furthermore, despite the increasing proportion of first births within cohabitation, empirical evidence suggests that marriage is a preferable setting for higher order births (Perelli-Harris 2014); cohabitators with one child have significantly lower second conception risks than their married counterparts. However, there are no significant differences in second conception risks between women cohabiting at first birth and marrying afterwards and the continuously married mothers (ibid). Finally, although cohabitators have acquired some rights and responsibilities of those granted to the married couples, the cross-national variation in the extent to which cohabitation is legally recognised is large, and in none of the Western societies are non-marital unions equal to marriage (Perelli-Harris and Sánchez Gassen 2012).

II.2.3 Implications of cohabitation for marital stability

A large body of literature has examined the consequences of cohabitation, particularly the impact of cohabitation on marital outcomes (Jose et al. 2010). The theory of marital search predicts a positive effect since cohabitation may be viewed as a 'trial marriage' which enables individuals to collect information about their potential spouse and to assess the compatibility as a couple before legitimizing the relationship (Becker et al. 1977, Brien et al. 2006). The empirical findings on the association between premarital cohabitation and divorce risks are mixed, however (Jose et al. 2010, Kiernan 2002, Liefbroer and Dourleijn 2006, Stanley et al. 2010, Wagner and Weiß 2006); while most studies have shown a negative effect of premarital cohabitation on stability of the first marriage (e.g. in Sweden: Bennett et al. 1988, in the UK: Berrington and Diamond 1999, in the US: Kamp Dush et al. 2003, Stanley et al. 2006), a few studies have reported no effect (in the US: Lillard et al. 1995, Reinhold 2010, in the UK: Steele et al. 2006) or even a positive association (in Germany:

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Brüderl et al. 1997, in Australia: Hewitt and De Vaus 2009, in Austria: Kulu and Boyle 2010, in Denmark: Svarer 2004). Previous research has also provided inconsistent results on the role of cohabitation in remarriage. A few American studies have shown that post-divorce and multi-partner cohabitation may delay remarriage (Xu et al. 2011, Xu et al. 2006) and increase the risk of a second marital breakdown (Booth and Edwards 1992, Stanley et al. 2010, Xu et al. 2011, Xu et al. 2006). Others, by contrast, have found no effect (Teachman 2008) or a stabilizing effect of cohabitation on higher order marriage (Kulu and Boyle 2010, Reinhold 2010). The mixed results reveal the complexity and heterogeneity of cohabitation which implies an unclear effect on the institution of marriage, and thus will be explored in more detail.

Many studies examining the impact of premarital cohabitation on first marital stability have discussed possible selection effects or the impact of cohabitation experience (e.g. Axinn and Thornton 1992, Kulu and Boyle 2010, Manning and Cohen 2012). Previous research has shown that individuals with higher divorce and separation risks, e.g. those who experienced parental union dissolution, are less educated, had a premarital birth, and are economically disadvantaged, are also more likely to cohabit prior to marriage than to marry directly (Berrington and Diamond 1999, Kamp Dush et al. 2003, Lillard et al. 1995, Steele et al. 2006). Furthermore, cohabitators may have some underlying unobserved characteristics, e.g. a weaker commitment to the institution of marriage (Bennett et al. 1988, Lillard et al. 1995), which influence both the transition into marriage and the subsequent marital outcome. In fact, numerous empirical studies have shown that once unobserved heterogeneity is controlled for, previously cohabiting individuals do not differ in their divorce risks from those marrying directly (Lillard et al. 1995, Reinhold 2010, Steele et al. 2006) or may have even more stable marital unions (Brüderl et al. 1997, Kulu and Boyle 2010). Similar findings have been reported for remarriage as well (Kulu and Boyle 2010, Reinhold 2010). Additionally, some research suggests a causal effect of cohabitation on subsequent marital stability (Axinn and Thornton 1992, Kamp Dush et al. 2003). Cohabitation experience is likely to weaken the commitment to the institution of a lifelong marriage as it may increase both the acceptance of cohabitation (Cunningham and Thornton 2005) and the acceptance of divorce (Axinn and Thornton 1992). Yet, it is also possible that both selection effects and experience of cohabitation jointly

determine the marital outcome of premarital cohabiting individuals (Axinn and Thornton 1992, Kamp Dush et al. 2003).

As cohabitation has become a normative behaviour among younger cohorts (Syltevik 2010), it may have also become less selective of divorce-prone individuals, and hence the link between premarital cohabitation and marital instability may have weakened (Reinhold 2010, Schoen 1992). Liefbroer and Dourleijn (2006) have argued that the effect of premarital cohabitation on subsequent marital outcome may depend on the diffusion of cohabitation in a population. In line with the diffusion hypothesis, some recent evidence from Australia (Hewitt and De Vaus 2009) and the US (Manning and Cohen 2012, Reinhold 2010) indicates a weakening association or even a reversal in the effect of premarital cohabitation on the subsequent marital outcome in the more recent marriage cohorts where premarital cohabitation was widespread. Thus, the stabilizing effect of cohabitation on subsequent marriage is likely to be proven in the future when more recent data is available (*ibid*). In this case, cohabitation would not pose a threat to the institution of marriage but rather reinforces its persistence in the long-run.

Recently, some scholars have also emphasized the heterogeneity in the level of interpersonal commitment among cohabitators which may affect marital stability (Jose et al. 2010, Manning and Cohen 2012, Stanley et al. 2010, Stanley et al. 2006). Studies in the US suggest that premarital cohabitation does not elevate the divorce risk if it is limited to the subsequent spouse (DeMaris and MacDonald 1993, Jose et al. 2010, Teachman 2003). Moreover, it seems that cohabitation does not affect marital stability of individuals who commit to marriage before starting to cohabit; in the US studies, couples who are engaged or have plans to marry at the onset of a co-residence do not differ significantly in their marital outcome from couples marrying directly (Kline et al. 2004, Manning and Cohen 2012, Rhoades et al. 2009, Stanley et al. 2010). Consequently, it could be that the higher divorce rates among pre-marital cohabiting individuals are primarily driven by less committed cohabitators. As some individuals may slide into cohabitation without having entirely considered its implications (Manning and Smock 2005), similarly some cohabiting couples may also drift into marriage because of the “inertia” of cohabitation (Stanley et al. 2006). Cohabiting couples have greater constraints

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of leaving an unhappy relationship than dating individuals (e.g. common children, shared possessions or financial obligations, etc.), and hence, it is likely that some incompatible couples eventually marry even though they would not have done it if they have not cohabited. In this respect, inertia hypothesis is closely related to selection effects; while the latter define who cohabits, the former explains why some of the fragile unions persist (Rhoades et al. 2009). Therefore, it seems crucial to recognize the heterogeneity of cohabitation since its implications for marital outcomes as well as for the institution of marriage in a broader sense may highly depend on the group of individuals who practice it.

Nevertheless, it seems that for younger birth cohorts cohabitation is no longer a stepping stone into marriage which is reflected by the continuously rising trend in serial cohabitation (Bukodi 2012, Cohen and Manning 2010, Lichter et al. 2010, Vespa 2014).⁵ In fact, the proportion of serially cohabiting individuals has increased at a faster pace than the proportion of ever cohabiting women and men and the rise in serial cohabitation has been steeper among never-married than ever-married individuals (Bukodi 2012, Cohen and Manning 2010, Lichter et al. 2010, Vespa 2014). This still underexplored new repartnering behaviour may have important implications for marriage and childbearing. Recent evidence has suggested that serial cohabitation may challenge the institution of marriage more than single instance cohabitation. Serial cohabitators have been found to have lower transitions rates into marriage (Bukodi 2012, Lichter and Qian 2008), higher separation rates (Bukodi 2012) and higher risk of subsequent marital dissolution than single-instance cohabitators (Lichter and Qian 2008, Teachman 2008). Furthermore, serial cohabitation seems to affect marital intentions as women cohabiting the most are the least likely to have a marriage plans at the beginning of a co-residential union (Vespa 2014). Finally, given the increasing share of births occurring to cohabiting couples (Kennedy and Bumpass 2008, Perelli-Harris et al. 2010), serial cohabitation may be related to multi-partner fertility (Carlson and Furstenberg 2006, Guzzo and Furstenberg 2007, Thomson et al. 2014).

⁵ Vespa (2014) estimated that 27% of all and 35% of ever-cohabiting American women born 1978-82 have cohabited with at least two non-marital partners by age 28. For Europe, Bukodi (2012) estimated that 14.5% of British men born in 1970 cohabited with at least two partners by age 34. This figure corresponds with American studies on comparable female birth cohorts (Cohen and Manning 2010).

Taken together, the deinstitutionalisation of marriage may have substantially changed repartnering behaviour. Generally, high union instability has resulted in a growing pool of individuals exposed to repartnering, while the rise in cohabitation has made the route to second union formation more diverse. Nowadays individuals re-entering the partner market are increasingly likely to have some cohabitation experience, either premarital or without entering a marital union. Furthermore, changes in the meaning and the type of first partnership have increased the heterogeneity of the population at risk of repartnering in terms of first union duration, age at separation and previous fertility. The growing diversity of repartnering may have also increased the complexity of stepfamilies, which are now often formed within cohabiting unions, and not only by divorced parents but also by never-married previously cohabiting mothers and fathers.

However, although all Western societies follow this same trend towards greater deinstitutionalisation of marriage, European countries and the United States differ substantially in the onset of family changes as well as in cultural and institutional settings. Repartnering behaviour, thus, may vary considerably depending on the country-specific context in which it occurs. We address this issue in the next section.

II.3 Family patterns across Europe and in the United States

Since the 1960s, family changes towards higher age at marriage, lower (re)marriage rates, higher union instability, more prevalent cohabitation and childbearing out-of-wedlock, and lower and postponed fertility have been observed in Western societies (Cherlin 2009, Sobotka 2008, Sobotka and Toulemon 2008). The described changes in family behaviour constitute the major part of the Second Demographic Transition (SDT) (Lesthaeghe 2010, Lesthaeghe and Neidert 2006, Van de Kaa 1987). Accordingly, new family behaviour is associated with increases in individualistic values, personal autonomy and self-realisation, as well as secularisation, development of welfare states, and the spread of modern contraception (Sobotka and

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Toulemon 2008). However, whereas the postponement of both marriage and childbearing is quite universal in Europe and the United States, cross-national differences in timing and sequencing of these events as well as variation in prevalence of cohabitation and union dissolution rates are remarkable (Billari and Liefbroer 2010, Sobotka and Toulemon 2008). The proponents of the SDT argue that the currently existing cross-national differences result from the different onset and the pace at which the changes have occurred. In the long-run, Western societies are expected to converge in their family patterns, but they have not yet (Billari and Liefbroer 2010).

Many scholars have emphasised the long-term persisting differences in institutional arrangements (i.e. welfare state regimes and policies) and a historical cultural tradition which may make convergence of family patterns rather unlikely (Billari 2004, Billari and Liefbroer 2010, Buchmann and Kriesi 2011, Kalmijn 2007). Accordingly, cross-national differences in family patterns may vary depending on the type of welfare regime. Esping-Andersen (1990, 1999) proposed typology which builds upon the relationship between state, market and family. Initially distinguishing between the liberal, social-democratic and conservative welfare regimes, the typology has been eventually extended by “the Mediterranean” welfare regime (Esping-Andersen 1999). Scandinavian countries are typical examples for a social-democratic welfare state regime. The regime is oriented towards individuals, whereas rights and generous social benefits are characterised by universalism and egalitarianism. In the liberal welfare regime service is provided by the market, the role of the state is limited to an intervention only in case of market failure, and a few social benefits are means-tested. This regime is typical for Anglo-Saxon countries. The conservative welfare regime aims to preserve status differentials, i.e. social rights and services are attached to a certain group, usually defined by the labour market position; social insurance system and few family benefits sustain traditional family model and the state interferes only if the family fails. Countries assigned to this regime are Austria, Belgium, France, Germany, and the Netherlands. The Mediterranean or “familialistic” welfare regime arises from the conservative welfare type. In this regime again, the family is a welfare provider and the overall level of benefits transferred to the head of the household in time of need is very low. However, the state provides a strong employment protection and a generous pension for the employed (male) head

of the family. Esping-Andersen's typology of the welfare regimes has been used in numerous comparative family demographic studies, however, mainly as a guideline for grouping countries (Aassve et al. 2007, Gelissen 2003, Liefbroer and Fokkema 2008) or as a starting point for a more refined typology (Uunk 2004, Anderß et al. 2006, Dewilde 2002).

Apart from welfare state regime differences, cross-national variation in policies may be also responsible for between country variation in family patterns. Gauthier (2002) shows that since the 1970s the state in all European countries has become more supportive for families with working parents. Yet, the cross-national divergence has rather increased, as countries differ significantly in the magnitude of family related policies. Further differences are also seen in the way the countries legally treat marital and cohabiting unions (Perelli-Harris and Sánchez Gassen 2012). Although national policies have increasingly recognised non-marital unions, the degree to which cohabitation is regulated, varies significantly across the continent. Finally, divorce legislation may have an impact on cross-national differences in family behaviour as it has been shown that reforms towards liberalization of divorce laws may affect divorce rates (González-Val and Marcén 2012a, b, González and Viitanen 2009, Wolfers 2006). Apart from Italy (1971), Portugal (1976), Spain (1981) and Ireland (1997), the legal act of divorce was introduced in most European countries before 1950 (for an overview, see Gonzalez and Viitanen 2009), and in the US in the 1960s (Fine and Fine 1994). There are common trends in reforms across countries which have made divorce easier to obtain comprising a gradual implementation of "no-fault" divorce (mainly in the 1970s) and more recently incorporation of unilateral divorce (Kneip and Bauer 2009). However, cross-national differences are striking in the way divorce is legally obtained (e.g. separation period) and in how the aftermath of divorce (e.g. child and spouse support, custodial arrangement) is regulated (for an overview, see Beaujot and Liu 2004 Appendix, Fine and Fine 1994, Coleman and Ganong 1999).

Finally, historical demographers have stressed cultural continuity in the family patterns (timing and prevalence) across Europe (Hajnal 1965, 1982, Reher 1998). The deep rooted cultural differences that are observed nowadays are likely to prevail in the future, making convergence to a one general pattern

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less likely. Hajnal (1965) has differentiated West and East marriage patterns by drawing a line from St. Petersburg to Trieste. Accordingly, the "West pattern" is characterised by late, however, not universal marriage and the norm of a nuclear family. To the East of the "Hajnal line", in contrast, marriage was early, almost universal and family systems more complex (joint families). Reher (1998) has emphasized over the centuries prevailing differences in the strength of family ties across Europe, particularly distinguishing between the strong family system in the Mediterranean countries and weak family ties in Northern and Central Europe (and also in the United States). In Southern Europe children co-reside longer with their parents, usually until they marry, familial solidarity is strong and societies tend to exercise a greater social control of behaviour. In Northern and central European countries, on the other hand, children leave the parental home and establish their own household relatively early in life, mostly long before family formation, personal autonomy is valued high, and social and emotional support is mainly provided by public institutions and civil society.

Much of the research on cross-national differences in family patterns has focused on the transition to adulthood, i.e. leaving parental home, first union formation, entry into first marriage and first birth, in cross-national comparison (Billari and Liefbroer 2010, Breen and Buchmann 2002, Buchmann and Kriesi 2011, Corijn and Klijzing 2001, Elzinga and Liefbroer 2007). Comparative studies have also examined trends and determinants of union dissolution, particularly divorce (Amato 2010, Amato and James 2010, Andersson 2003, Andreß et al. 2006, de Graaf and Kalmijn 2006, de Regt et al. 2012, Dronkers and Härkönen 2008, Härkönen and Dronkers 2006, Kalmijn 2007, 2010, Kalmijn and Uunk 2007, Uunk 2004). To the best of our knowledge, apart from one study on stepfamily formation which includes information on repartnering level in Europe in the mid-1990s (Prskawetz et al. 2003), virtually nothing is known on the differences in repartnering dynamics, i.e. prevalence, timing and union type, in Western societies. However, a few recent studies have looked at females' repartnering as a strategy to diminish economic consequences following divorce in cross-national comparison (Dewilde and Uunk 2008, Jansen et al. 2009). Although, they have not investigated the level of repartnering explicitly, the results may give some hints about the impact of different contexts in which repartnering occurs.

Generally, women are more affected by the economic consequences of partnership dissolution than men, which is attributed mainly to the presence of dependent children (custody arrangement), gender income gap and general lower labour market participation (Amato 2000, 2010, Andreß et al. 2006). Female's income deterioration following divorce varies considerably across Europe (for review: Andreß et al. 2006, Uunk 2004) and in the US (Morrison and Ritualo 2000). Divorce-related policies and welfare state arrangements (particularly single parent allowances and public child care provision) are likely to mitigate the negative consequences of divorce (Andreß et al. 2006, Uunk 2004) and have implications for the choice of the second union type (de Graaf and Kalmijn 2003, Dewilde and Uunk 2008). Uunk (2004) has shown that females' economic deterioration following divorce across Europe depends on the welfare state: following Esping-Andersen's classification (1990, 1999), the income decline is the weakest in countries with a socio-democratic regime and the strongest in Southern European countries. Similar conclusions about short and long-term economic consequences of a union dissolution, based on their own typology, have been drawn by Andreß et al. (2006). Regarding the type of a second union, in some countries (e.g. the Netherlands), remarriage means disentanglement to welfare benefits (de Graaf and Kalmijn 2003, Dewilde and Uunk 2008); empirical studies have shown that divorced women who receive alimony or welfare payments have a significantly lower risk of remarriage than those who are not benefit claimants (ibid). Furthermore, some evidence suggests that also cohabiting women suffer from non-marital union dissolution (Avellar and Smock 2005 for the US, de Regt et al. 2012 for Belgium, Manting and Bouman 2006 for the Netherlands). The short-term income decline following non-marital separation is likely to be smaller than after divorce (de Regt et al. 2012, Manning and Smock 2002). Cross-national studies on this topic are missing, however.

II.4 Literature review on women's repartnering

II.4.1 International research on women's repartnering

The majority of studies conducted thus far have looked at the factors affecting women's repartnering behaviour in a single country (e.g. in the US.: Bumpass et al. 1990, McNamee and Raley 2011, Sweeney 1997, 2002, in Canada: Wu and Schimmele 2005, in France: Beaujouan 2012, in Germany: Jaschinski 2009; in Italy: Meggiolaro and Ongaro 2008, in the Netherlands: de Graaf and Kalmijn 2003, Poortman 2007, in the UK: Haskey 1999, Lampard and Peggs 1999) or only in a few countries in comparison (Blanc 1987: Norway and Sweden, Ivanova et al. 2013: France, Germany, Russia, Norway, Romania, Skew et al. 2009: the UK and Australia). Researchers have mainly analysed the effect of the individual demographic and socio-economic characteristics and that of previous partnership history on repartnering (for review see: Coleman et al. 2000, Sweeney 2010). Yet, despite the large body of existing literature investigating the determinants of repartnering in some detail, in some of the countries, cross-national studies on the level and type (cohabitation or marriage) of repartnering are scarce. To the best of our knowledge, only one study conducted by Prskawetz et al. (2003) has provided some information on repartnering level in cross-national comparison. Based on individual data collected within the Fertility and Family Surveys (FFS) in Europe in the early 1990s, the study has described percentage of women born in 1952-59 who have formed a second partnership by age 25 and 35. These basic figures are presented with regard to stepfamily fertility, and thus no further distinction between cohabiting and marital unions has been made. Therefore, this thesis addresses this gap in knowledge by examining the state of repartnering dynamics in Europe and in the United States.

II.4.2 Main demographic determinants of women's repartnering

A large body of literature has focused on the impact of women's demographic and socio-economic characteristics on the chances of entering a new partnership after union dissolution (for review see: Coleman et al. 2000, Sweeney 2010). Empirical research has predominantly identified age and previous fertility as the main determinants of repartnering chances. However,

second union formation may also depend on partnership history and socioeconomic status. The following section describes the underlying mechanisms of the main predictors of women's repartnering.

Women's age

Age at union dissolution is one of the strongest predictors of women's chances in the partner market (Beaujouan 2012, Bumpass et al. 1990). With increasing age the pool of potential partners decreases and thus the likelihood of a second union formation (Beaujouan 2012, Ivanova et al. 2013, Dewilde and Uunk 2008, Jaschinski 2011, Lampard and Peggs 1999, Meggiolaro and Ongaro 2008, Poortman 2007, Skew et al. 2009, Sweeney 1997, Wu and Schimmele 2005). For instance, in Canada an increase in age at union dissolution by one year diminishes women's chance of repartnering by 11% for both cohabitation and marriage (Wu and Schimmele 2005). These results are consistent with findings for France (Beaujouan 2012), Italy (Meggiolaro and Ongaro 2008), the Netherlands (Poortman 2007), the UK (Skew et al. 2009, Lampard and Peggs 1999), the US (Sweeney 1997, McNamee and Raley 2011), and Australia (Skew et al. 2009). Furthermore, some studies have also found a strong negative effect of current age on repartnering (in the Netherlands: de Graaf and Kalmijn (2003), in Norway, France, Germany, Romania and Russia: Ivanova et al. 2013).

There are several reasons explaining the strong negative effect of women's age on second union formation. With increasing age women's chances in the re-partner market decline due to men's preferences to partner with younger women (Bumpass et al. 1990, England and McClintock 2009, Hughes 2000, Ní Bhrolcháin 1992). Furthermore, older women may be less attractive to a potential partner because of declining physical attractiveness and health conditions (Skew et al. 2009), or because they are less willing or, due to biological limits on fertility, unable to have (further) children (Beaujouan 2012, Ermisch and Wright 1991). In addition, Skew et al. (2009) have argued that age may reveal some generational attitudes towards repartnering. People older at union dissolution may have a more traditional view on union formation and therefore be more reluctant to repartner.

Presence of children

Although shared custody over dependent children has increased, due to recent changes in custodial legislations aiming at equalizing parental rights, in some countries, for example in Belgium, France, the Netherlands and Sweden (Sodermans et al. 2013, Spruijt and Duindam 2009, Trinder 2010), most studies have focused on the repartnering of mothers who “traditionally” receive sole custody over children after union dissolution (e.g. Koo et al. 1984, Lampard and Peggs 1999, Meggiolaro and Ongaro 2008, Mott and Moore 1984, Sweeney 1997). Overall findings show that children have a negative impact on repartnering among women (e.g. Beaujouan 2012, Ivanova et al. 2013, Koo et al. 1984, Lampard and Peggs 1999, Meggiolaro and Ongaro 2008, Poortman 2007, Skew et al. 2009, Sweeney 1997). The results for men are inconclusive and not always significant (for review see de Graaf and Kalmijn 2003, Ivanova et al. 2013, Stewart et al. 2003). In fact, previous fertility is an important factor explaining the gender gap in repartnering as some evidence has suggested that childless women and men do not differ much in their repartnering behaviour (Beaujouan 2012, Ivanova et al. 2013).

Having minor children in a household is generally viewed as an obstacle for women’s repartnering (de Graaf and Kalmijn 2003, Lampard and Peggs 1999). Prior fertility may affect the attractiveness of a searching person on the partner market (de Graaf and Kalmijn 2003, Ivanova et al. 2013, Mott and Moore 1983, Goldscheider and Kaufman 2006). A potential partner has to take into account the direct financial costs and face the challenges related to the complexity of step-families (Bumpass et al. 1990, Stewart et al. 2003). Furthermore, children, particularly those very young, are likely to reduce the meeting and mating opportunities, as they increase the cost of time women spend searching for a new partner (de Graaf and Kalmijn 2003, Ivanova et al. 2013a). Also, divorced or separated parents may be less prone to have an additional child with a new partner, which may be a burden to union formation for those with a strong desire to have children. Moreover, as having children is usually associated with a stronger emotional investment and a long-term commitment to a partner, parents may perceive union dissolution as more harmful than their childless counterparts. Thus, because of their experience, they may develop a more cautious attitude towards entering a new union

(Lampard and Peggs 1999, Poortman 2007). Finally, given that children are often prioritized in terms of time and affection, some parents may not be willing to form a new relationship when children are young (Stewart et al. 2003) or unless they do not accept a potential step-parent (Lampard and Peggs 1999).

The effect of previous fertility may strongly depend on children's number, age and custodial arrangement. Several studies have found no effect of the number of children on repartnering (in Canada: Wu and Schimmele 2005, in the US: McNamee and Raley 2011, Mott and Moore 1983, Sweeney 1997). The negative impact of number of children has been shown, however, for the UK (Lampard and Peggs 1999) and Germany (Jaschinski 2011). It seems that women's chances in the repartnering market vary considerably with children's age. Small and school-aged children are likely to reduce women risk of repartnering (e.g. Poortman 2007, Sweeney 1997). However, the negative effect decreases when children grow older. Once the youngest child is 18 years old, the effect is either insignificant (Poortman 2007, Ivanova et al. 2013) or even reversed (Sweeney 1997).

The effect of prior fertility varies considerably between countries and it is often a combination of age, number and residence of children. For example, in comparison to childless individuals, having resident pre-school children (aged<5) in a household significantly reduces the chances of repartnering in the UK and Australia (Skew et al. 2009). In both countries, resident children older than 5 years and non-resident children do not have a significant effect on repartnering. Meggiolaro and Ongaro (2008) have found a negative effect of more than one preschool child on women's repartnering in Italy. The impact of preschool children on females' repartnering is insignificant in Canada (Wu and Schimmele 2005). In the Netherlands, women with children younger than 12 years old and men whose children are younger than 6 years and/or are in the age group between 13 and 18 years have a significant lower relative risk of repartnering than their childless counterparts (Poortman 2007).

In addition, some studies have examined the role of children's place of residence in repartnering behaviour. For instance, for the Netherlands de Graaf and Kalmijn (2003) have shown that resident pre-union children have a significantly negative effect on both women's and men's repartnering. Interestingly, the negative effect of resident children is stronger for fathers

than for mothers. This rather surprising finding may be explained by the fact that divorced Dutch men with co-resident children are more selective than divorced women with dependent children. Non-resident children reduce men's but not women's chances of forming a new union after divorce (ibid). Yet, resident children diminish the repartnering chances of both women and men to a larger extent than those living outside the household.

II.4.3 Partnership history

Numerous studies on individual countries have investigated the relationship between previous partnership history and repartnering behaviour. Studies have usually analysed the impact of (i) duration of the previous union (de Graaf and Kalmijn 2003, Ivanova et al. 2013), (ii) previous union type (Poortman 2007, Skew et al. 2009, Wu and Balakrishnan 1994, Wu and Schimmele 2005), (iii) number of partners (Poortman 2007, Skew et al. 2009) and even (iv) whose initiative was to divorce (Sweeney 2002) on repartnering chances.

First union duration

Bumpass and colleagues (1990) have discussed the effect of first union duration, particularly marriage, on females' repartnering chances (remarriage), arguing that increasing length of a first union may facilitate as well as hinder repartnering. On the one hand, women who were in a long first union are probably more marriage oriented or may have developed skills over time related to home production that are of greater value in a new relationship than while being single. Furthermore, women in a long relationship have spent most of their adult life with a partner, which may impede their adjustment to the single life. In each case it is expected that they repartner faster than their counterparts whose first union was of a comparably short duration. On the other hand, however, long-married women may lack experience in searching for a partner as they withdrew from the partner market a long time ago (Koo et al. 1984), which would therefore result in a slower repartnering. Wu and Balakrishnan (1994) argue that the benefits from a partnership increase with the length of union. Therefore, those whose first union was of a longer duration may want to repartner more quickly as they expect to benefit from a new union in a similar way. Longer first union may be also positively assessed

at the partner market as it implies ability for a long-term commitment (Poortman 2007).

Wu and Schimmele (2005) found a significant positive effect of first union duration on entering a cohabiting second. With each additional year of a first union, the risk of forming a non-marital partnership following union dissolution increases by 7%. The effect on forming a second marital union was statistically insignificant, however. Poortman (2007) found a positive effect of union duration on repartnering in the Netherlands. Women's chances of entering a new union increases when the first partnership lasted three years or longer. The positive effect of marriage duration on women's repartnering has also been found in an older Dutch study (de Graaf and Kalmijn 2003) and for Norwegian and Russian women (Ivanova et al. 2013). In the UK, Australia and the US the duration of previous partnership appears to have no effect on repartnering (Skew et al. 2007, Bumpass et al. 1990, Koo et al. 1984, Mott and Moore 1983).

First union type

Increasing diversity in individual's partnership biography may influence repartnering (Poortman 2007). Most of the existing literature has focused on repartnering after divorce (Bumpass 1990, de Graaf and Kalmijn 2003, Ivanova et al. 2013, Lampart and Peggs 1999, Meggiolaro and Ongaro 2008, Shafer and James 2013, Sweeney 1997, Wu 1994), while fewer studies have addressed formation of a new partnership after non-marital union dissolution or the interrelationship between the first and the second union type (Blanc 1987, Poortman 2007, Skew et al. 2009, Wu and Schimmele 2005). Previous research has indicated that cohabitators and divorcees are likely to differ in their chances and timing of repartnering (Ermisch 2002, Skew et al. 2009, Wu and Schimmele 2005). On the one hand, it can be argued that cohabitators whose first partnership dissolved are in a better position on the partner market than divorced women. Given that non-marital unions are usually of a shorter duration and of a lower investment (time and resources), separated cohabitators are likely to be younger and more often childless at the time of union dissolution than their divorced counterparts (Blanc 1987, Wu and Schimmele 2005). On the other hand, given that the end of a marriage means the failure of fulfilling a formal commitment (Blanc 1987) and divorce itself may be a

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strenuous experience (Amato 2000, 2010), divorcees may need a longer “recovery” time than individuals whose cohabitation dissolved (Blanc 1987). In addition, individuals who experienced marital union dissolution may also face stigma attached to divorce which inhibits their repartnering chances (Ivanova et al. 2013, Meggiolaro and Ongaro 2008).

The few studies providing life-table estimates of repartnering by first union type have consistently shown that previously cohabiting women form a second co-residential union at a faster pace than divorced women (Blanc 1987 in Sweden and Norway, Ermisch 2002 in the UK, Skew et al. 2009 in Australia and the UK, Wu and Schimmele 2005 in Canada). The results of multivariate analyses are less conclusive, however, and depend on operationalization of first union type, i.e. direct marriage, marriage preceded by cohabitation and cohabitation which has not been transformed into marriage, and the studied event, i.e. repartnering in general or entry into either cohabiting or marital second union (Skew et al. 2009, Poortman 2007, Wu and Schimmele 2005). Previously cohabiting women have higher risks to repartner than divorcees in the Netherlands (Poortman 2007), while no significant effect of first union type on repartnering has been documented for men and women together in the UK and Australia (Skew et al. 2009). In a Canadian study which refines first and second union type, previously cohabiting women do not differ from direct married divorced women in the entry into a cohabiting second union but have a significantly lower risk of entering a marital second union (Wu and Schimmele 2005).

Relatively little is known about the effect of premarital cohabitation in first marriage on second union formation. In Canada divorced women whose marriage was preceded by cohabitation have a significantly higher risk of entering a cohabiting second union than divorcees married directly (Wu 1995, Wu and Schimmele 2005). However, there are no differences between women cohabiting prior to marriage and those marrying directly in the odds ratios of remarriage (Wu and Schimmele 2005). Similar results, however, for both men and women together have been reported by Skew et al. (2009) for Australia: the risk of repartnering is 57% higher for individuals whose marriage was preceded by cohabitation than direct marriage, whereas the differences in repartnering between direct married divorcees and previous cohabitators are not

significant. Finally, Lampard and Peggs (1999) have found that premarital cohabitation decreases repartnering chances among British divorcees (both men and women together).

II.4.4 Other determinants of women's repartnering

Apart from age and presence of children at union dissolution, which have been identified as key factors in explaining women's repartnering behaviour, previous research has also examined a series of other potential determinants of second union formation. For the sake of completeness of this literature review, the following section summarizes the effects of women's socio-economic characteristics on second union formation in selected Western societies. Note, however, that since this thesis focuses on the role of women's demographic characteristics at first union dissolution in repartnering behaviour, the impact of the other possible predictors discussed below will not be empirically tested in this thesis.

Previous literature has suggested that socio-economic determinants, in particular education, employment or income, may substantially affect repartnering (Sweeney 2010). Employment is claimed to be a proxy for economic independence which in turn is expected to have a negative impact on women's repartnering, but a positive effect on men's union formation following dissolution (Becker et al. 1977). Based on the economic theory, women are traditionally the homemakers and men the breadwinners (Becker 1991). Therefore, the more independent women are, the lower their incentive to repartner. In contrast, the more independent men are, the more attractive are they to a potential partner. Yet, contrary to the economic theory of marriage, some evidence suggests that if the partner market is less traditional, economically dependent women may be less attractive for men and therefore less likely to enter a new union after dissolution (de Graaf and Kalmijn 2003). In addition, some studies indicate that higher income may make women more attractive to a potential partner (Mott and Moore 1983) and also, that employment provides an opportunity for social interaction (de Graaf and Kalmijn 2003).

Empirical findings on socio-economic determinants of repartnering are mixed and vary across countries. In Germany, highly educated divorced women

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have significantly higher risks of repartnering than lower educated women (Jaschinski 2011). Interestingly, in the US education is positively associated with remarriage but negatively with repartnering (McNamee and Raley 2011). However, in an older study, Mott and Moore (1983) have shown for young American women that remarriage probability is the highest among the low educated. Finally, no significant differences in repartnering behaviour have been found among high and low educated women in Italy and in the Netherlands Graaf and Kalmijn 2003, Poortman 2007).

Labour market attachment does not have a significant impact on repartnering in the UK and Australia (Skew et al. 2009). It does, however, matter for a new union formation following separation in the Netherlands (de Graaf and Kalmijn 2003, Poortman 2007) and Canada (Wu and Schimmele 2005). Mixed results have been found on the effect of employment on women's' repartnering in the Netherlands (de Graaf and Kalmijn 2003, Poortman 2007). The Dutch study has shown, however, that divorced women who receive alimony or welfare payments have a significantly lower risk of remarriage than those who are not benefit claimants (de Graaf and Kalmijn 2003, Dewilde and Uunk 2008). The reason may be that in many settings, repartnering, in particular entering a new marital union, means disentanglement to welfare benefits, which would also explain why receiving alimony or welfare does not influence forming a cohabiting second union (ibid.).

Among other potential predictors of repartnering, a few single country studies have also examined the effect of religiosity (de Graaf and Kalmijn 2003), housing tenure and geographic regions (Skew et al. 2009), as well as values and degree of social integration (de Graaf and Kalmijn 2003).

II.5 Needs, opportunities and attractiveness

The reviewed empirical findings on the determinants of women's repartnering can be brought together in the Needs, Opportunity and Attractiveness framework (short NOA) which has often been used in studies examining second union formation (de Graaf and Kalmijn 2003, Ivanova et al. 2013). Previous research has suggested that repartnering chances may result from the interplay between women's (1) need to repartner, (2) attractiveness to a

potential partner and (3) opportunities they face when re-entering the partner market (Becker 1991, de Graaf and Kalmijn 2003, Goldscheider and Waite 1986, Ivanova et al. 2013, Oppenheimer 1988). The effect of these three factors on repartnering is likely to depend on women's characteristics and the country-specific context in which it occurs. By incorporating micro-level and macro-level, the NAO framework proves particularly useful for comparative studies on repartnering. While referring to the literature review presented in section II.4, the most important aspects of NOA are discussed. In addition, in line with the process of the deinstitutionalisation of marriage, we speculate also how the first union type is likely to affect women's need, attractiveness and the opportunities to repartner.

II.5.1 Needs

A large body of literature suggests that repartnering increases women's economic and psychological well-being (Becker 1991, Goldscheider and Waite 1986, Oppenheimer 1988, Sweeney 2010). Hence, the greater the women's *need*, the higher the incentive to repartner (i.e. repartnering rate).

Economic needs

Women have been shown to suffer economic hardship following union dissolution to a much larger extent than men (Aassve et al. 2007, Andreß et al. 2006), and repartnering may serve as an effective strategy to improve women's economic wellbeing (de Regt et al. 2012, Dewilde and Uunk 2008, Duncan and Hoffman 1985, Jansen et al. 2009, Manting and Bouman 2006, Mortelman and Jansen 2010, Ozawa and Yoon 2002). The degree to which economic needs influence repartnering is likely to depend on women's individual characteristics and on the country-specific context in which it occurs.

At the individual level, the economic needs to repartner are likely to vary by women's socio-economic status (Amato 2010, Coleman et al. 2000, Sweeney 2010). Less educated women and those inactive in the labour market are likely to be more affected by divorce or separation than better educated and employed women. Generally, women who experienced the most severe decline in household income following union dissolution are likely to show the greatest incentive to repartner. However, the empirical findings on the effect of

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women's education and labour market attachment on repartnering are widely inconclusive; depending on the country and the studied entry into second union (i.e. remarriage or more broadly defined overall repartnering), socioeconomic status have been found both to enhance and to hinder repartnering (see II.4.4).

Furthermore, women's economic need to repartner may depend on their partnership history, mainly prior childbearing and, to some degree, first union type (Manting and Bouman 2006, Uunk 2004). Women with dependent children from previous relationships are likely to experience a greater income decline following union dissolution than childless women (Dewilde and Uunk 2008). In addition, being a single mother with dependent children has been associated with an increased risk of poverty and material deprivation (Chzhen and Bradshaw 2012, Del Boca 2003, McLanahan 2004). The economic consequences of union dissolution for mothers would suggest higher incentives to repartner. Yet numerous empirical studies have consistently shown a negative effect of children on women's repartnering chances (e.g. Ivanova et al. 2013, Koo et al. 1984, Lampard and Peggs 1999, Meggiolaro and Ongaro 2008, Poortman 2007, Skew et al. 2009, Sweeney 1997).

Less is known about the role of first union type in repartnering since most studies have focused on the consequences of divorce (Aassve et al. 2007, Amato 2000, 2010, Andreß et al. 2006), while the aftermath of separation from a non-marital partner has remained widely understudied. However, some recent findings suggest that cohabitators also - although to somewhat lesser extent, suffer a short-term income loss following union dissolution (Avellar and Smock 2005, de Regt et al. 2012, Manting and Bouman 2006). It has been suggested that higher employment rates and thus higher relative contribution to household income among cohabiting women make them more independent from partners' income than married women. This would imply that the economic need to repartner is higher among divorcees than among previously cohabiting women. On the other hand, since divorce is usually more legally regulated than non-marital separation, divorcees are more often than cohabitators entitled to alimonies from previous partners, which may counteract financial deterioration (Perelli-Harris and Sánchez Gassen 2012, Sánchez Gassen and Perelli-Harris 2015). The few studies comparing repartnering

behaviour of previously cohabiting and married women have yielded inconsistent results on the role of first union type in repartnering behaviour, however (Poortman 2007, Wu and Schimmele 2005, Skew et al. 2009).

Apart from individual characteristics, the magnitude of the economic need of repartnering may depend on country-specific institutional and cultural context. In fact, several comparative studies have documented that women's financial situation following divorce or separation from a non-marital partner varies across Europe (Aassve et al. 2007, Andreß et al. 2006, Dewilde 2002, Uunk 2004). Empirical evidence has indicated that welfare state arrangements, particularly policies to support lone parents, as well as labour market regulations enhancing mother's employment may mitigate the adverse consequences of union dissolution (Dewilde 2002, Uunk 2004, Andreß et al. 2008). A lot of attention has been paid to the extent and the character of the welfare transfers, i.e. universal or means-tested, showing that financial deterioration after union dissolution is smaller in countries with more generous benefits for lone mothers (*ibid.*). Furthermore, policies targeting mothers' full-time employment, in particular the availability and acceptability of public child care are likely to improve women's economic situation (Raeymaeckers et al. 2008, van Damme et al. 2009). Nevertheless, welfare benefits, public child care provision and easy access to paid full-time employment, i.e. arrangements aimed at increasing women's economic independence, are likely to reduce women's incentive to repartner for financial reasons. Empirical evidence has suggested that women who are welfare transfer recipients have lower likelihood to repartner (de Graaf and Kalmijn 2003, Dewilde and Uunk 2004). Some studies have shown, however, that repartnering is a more effective strategy of improving women's economic wellbeing than re-employment (de Regt et al. 2012, Jansen et al. 2009, Manting and Bouman 2006, Mortelman and Jansen 2010).

Furthermore, the economic need to repartner is likely to depend on country-specific laws governing divorce and non-marital union dissolution. Although divorce has been permitted in majority of Western societies since 1950s, countries differ in the timing when the main reforms introducing non-fault, mutual-consent and unilateral divorce were implemented (for an overview,

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see Beaujot and Liu 2004 Appendix, Fine and Fine 1994, Coleman and Ganong 1999). Different types of divorce imply various administrative practices, i.e. costs and length of the procedure (including separation period), which suggest varying direct costs of union dissolution across countries. In addition, countries differ in the regulations of the financial aftermath of divorce, such as child support and spouse alimonies and custodial arrangements (Sánchez Gassen and Perelli-Harris 2015). To the best of our knowledge, there are no studies examining how differences in divorce laws influence repartnering behaviour. However, it can be speculated that in countries where divorce is generally lengthy and expensive and child and spousal support less favourably regulated for sole custodial mothers, the mother's economic situation is more precarious and hence their need to repartner is greater.

Psychological needs

Apart from economic benefits, repartnering provides companionship and a sexually intimate setting which may satisfy emotional and social needs. On the one hand, repartnering may increase mental well-being (Demo and Acock 1996, Marks and Lambert 1998, Wang and Amato 2000) as it counteracts the negative psychological effects of union dissolution, for example loneliness, depression and anxiety (Amato 2000, 2010, Amato and James 2010, Härkönen 2013).

On the other hand, repartnering poses an opportunity for childbearing, therefore women willing to enter motherhood or to continue childbearing may be particularly inclined to enter a new union (Lampard and Peggs 1999). From the micro-level perspective, the wish to have child(ren) may be particularly important for older women approaching biological limits on fertility who have not yet fulfilled their maternal desires. However, mothers of very young children may want to repartner in order to provide a "family-like" environment for raising up children (Koo et al. 1984). Presumably if divorce and separation are not strongly stigmatized, the emotional and social needs and the anticipated benefits from repartnering are most probably similar across countries. Nevertheless, the childbearing related need to repartner may be affected by the country-specific fertility behaviour, i.e. age and parity patterns, as well as the social age norm for childbearing and the family model (e.g. Liefbroer and Billari 2010, Mynarska 2010, Van Bavel and Nitsche 2013). For

example, in countries with a strong culturally defined age norm of parenthood, the wish to start or continue childbearing after separation, at presumably higher age, may be viewed as a deviant behaviour, and hence the psychological need to repartner for childbearing reason is likely to be suppressed by the anticipated sanctions.

Nonetheless, the high need of repartnering, either economic or psychological, does not always translate into high repartnering rates. In fact, despite the strongest economic need to repartner, mothers show lower risks of second union formation than childless women (Beaujouan 2012, de Graaf and Kalmijn 2003, Ivanova et al. 2013, Meggiolaro and Ongaro 2008). Hence, women's repartnering may not be only affected by their needs but also by other factors, such as their attractiveness to the potential partner. This aspect is discussed in the next section.

II.5.2 Attractiveness

Apart from *needs* as a driving force to repartner, the chances of new union formation may depend on women's attractiveness to a potential partner (Becker 1991, de Graaf and Kalmijn 2003, Goldscheider and Waite 1986, Ivanova et al. 2013, Oppenheimer 1988). At the micro-level, age and presence of children - both negatively associated with repartnering, are viewed as the most important determinants of women's chances in partner search (See section II.4.2).

At the macro-level, the attractiveness of women exposed to repartnering is likely to depend on general attitudes toward divorce and stepfamilies (Goldscheider and Kaufman 2006, Goldscheider et al. 2009). In countries where marital union dissolutions are not common, women may face a stigma attached to divorce which would inhibit their repartnering chances (Ivanova et al. 2013, Meggiolaro and Ongaro 2008). This could be particularly the case in a religious setting where divorce and non-traditional family forms are disapproved of on moral grounds. European countries differ in the acceptance of divorce (Gelissen 2003, Kalmijn and Uunk 2007, Liefbroer and Fokkema 2008). Generally, in countries where negative attitudes towards divorce are

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widespread, divorce is stigmatised more strongly (Kalmijn and Uunk 2007, Kalmijn 2010). However, although some evidence has suggested that in many European countries the acceptance of divorce has slightly increased over time (Liefbroer and Fokkema 2008), Rijken and Liefbroer (2012) have shown a persistence of negative attitudes towards divorce when children are involved. The disapproval of divorce if children are present is the highest in Eastern European countries and the lowest in Northern and Western Europe. The acceptance of divorce involving children is negatively associated with country-specific level of single mother's poverty and positively related to the level of women labour force participation and the formal child care enrolment (Rijken and Liefbroer 2012).

Finally, the persistent high divorce rates over a longer period of time may have indirect effects on repartnering through the intergenerational transmission of divorce. In fact, some studies have provided evidence that individuals who experienced non-traditional family forms in childhood are more likely to marry someone previously married or with children (Bernhardt and Goldscheider 2002, Goldscheider and Kaufman 2006, Goldscheider and Sassler 2006).

II.5.3 Opportunities

Opportunities to repartner refer to the partner market structure, for instance, the availability of potential partners and the institutional settings which may enhance or impair chances to meet and mate (de Graaf and Kalmijn 2003, Ivanova et al. 2013). At the micro level, women's opportunities to repartner may depend on the presence of children (see section II.4.2). The effect of previous fertility arises from the interplay between the number of children, age of child(ren) and the custodial arrangements, and is particularly strong for sole custodial mothers of young children. Having dependent children in a household restricts a women's time available to spend searching for and building up a relationship with a prospective partner (de Graaf and Kalmijn 2003, Ivanova et al. 2013).

In addition, women's employment may influence repartnering because it increases the chances to meet a partner through the workplace (de Graaf and Kalmijn 2003). The empirical results on the effect of employment on

repartnering rates are mixed however (see section II.4.4). The explanation may be sought in the effect of the labour market attachment on the *need* to repartner, i.e. employment may indeed offer opportunities to meet and mate but, at this same time, it increases women's economic independence which may decrease the incentives to repartner for economic reasons.

Furthermore, women's age is likely to determine their opportunities in the partner market. Women who experienced union dissolution at younger ages are more likely to be employed, enrolled in educational training or engaged in leisure activities which may increase their social interactions (de Graaf and Kalmijn 2003, Kalmijn 1998). Also, women whose first union dissolved at higher ages are additionally disadvantaged in the repartner market as their pool of potential partners naturally shrinks due to the higher mortality rates in males.

At the macro-level, women's repartnering chances depend on the availability (supply) of potential partners. In countries where union dissolutions are very common separated women have, at least numerically, a larger pool of potential partners. In addition, women's opportunities to find a partner are likely to depend on the structure of the partner market regarding men's individual characteristics, for instance, age, previous union and fertility history and socioeconomic status (Bhrolcháin and Sigle-Rushton 2005, Shafer and James 2013). As mentioned earlier, women are disadvantaged in the partner market due to unbalanced sex-ratios at higher ages and men's preferences towards younger women (England and McClintock 2009). Hence, in countries where women's mean age at union dissolution is relatively young, repartnering rates should be higher. However, to the best of our knowledge, no research has systematically investigated the cross-national differences in the population at risk of repartnering.

In addition, in countries where union dissolution is very common, previously married or cohabiting men constitute a significant share of the pool of potential partners. The partner market structure in terms of males' partnership history is important since, as previously mentioned, divorced men have more favourable attitudes and are more likely to enter a union with

divorcees or mothers (Bernhardt and Goldscheider 2002, Goldscheider and Kaufman 2006, Goldscheider et al. 2009, Stewart et al. 2003).

To sum up, the incorporation of both the micro- and the macro-perspectives makes the Need, Attractiveness and Opportunity framework particularly useful for comparative studies on repartnering. Although, we are able to test empirically only a few aspects of the NAO framework, we believe that it provides a valuable analytical and explanatory level for our research. It presents the complexity of repartnering behaviour not only in terms of micro- and macro-level interplay but also because the components may reinforce or counteract each other. The relationship between these three factors is likely to vary across Western societies depending on the country-specific cultural, socio-economical and institutional context.

II.6 Childbearing within repartnering

We now turn our attention to an important aspect of repartnering, namely women's childbearing within higher order unions. Since partnership history and fertility are closely related, union dissolution implies a disruption in women's childbearing career which in turn may be offset by repartnering (Jefferies et al. 2000, Meggiolaro and Ongaro 2008). For childless women, forming a new co-residential union poses a chance for entering motherhood and for mothers a setting for having additional children. In fact, recent research has provided evidence that about a half of cohabiting or married repartnered individuals with pre-union child(ren) eventually have a shared child (Buber and Prskawetz 2000, Griffith et al. 1985, Holland and Thomson 2011, Jefferies et al. 2000, Thomson et al. 2002b, Vikat et al. 1999, Wineberg 1990). Investigating fertility within repartnering is important as many shared children are births of third or fourth order and hence crucial for a country's overall level of fertility (Thomson 2004). Some evidence shows also that the high desire for having a common child in a new partnership can diminish the negative effect of union dissolution on childbearing career and even result in a similar completed fertility to that of women in intact unions (Beaujouan and Solaz 2013, Thomson et al. 2012, Van Bavel et al. 2012).

Numerous studies have suggested that couple's first shared child has a unique value which outweighs the costs of raising a larger number of children in household (Henz and Thomson 2005, Ivanova et al. 2014, Jefferies et al. 2000, Thomson et al. 2002, Thomson 2004, Vikat et al. 1999, 2004). Individuals who repartnered may want to have a child with a new partner for various reasons (Griffith et al. 1985): (i) to strengthen their relationship ('commitment hypothesis'), (ii) to become a parent if one of the partners is childless ('parenthood hypothesis'), or (iii) to give a brother or sister to the first child ('sibling hypothesis'). The parenthood and the commitment hypothesis have been empirically tested in many studies (Griffith et al. 1985, Ivanova et al. 2014, Jefferies et al. 2000, Thomson et al. 2002b, Vikat et al. 1999, Wineberg 1990). Empirical results are not straight forward since the support for each hypothesis often depends on age, number and co-residence of pre-union children, couple's combined parity and on whose children are considered (see section II.6.1). However, it seems that more evidence support the commitment hypothesis (Bubber and Prskawetz 2000, Henz and Thomson 2005, Holland and Thomson 2011, Griffith et al. 1985, Ivanova et al. 2014, Jefferies et al. 2000, Thomson et al. 2002, Thomson 2004, Vikat et al. 1999), than parenthood hypothesis (Kalmijn and Gelissen 2007, Vikat et al. 2004).

A few studies have also tested the sibling hypothesis (Beaujouan and Solaz 2013, Buber and Prskawetz 2000, Holland and Thomson 2011, Thomson et al. 2002, Thomson 2004). The results show that shared children have a stronger effect on childbearing in higher order unions than stepchildren (Thomson et al. 2002). For instance, the risk of having a second common child (full sibling to the first shared child) in repartnering is twice as high as for couples whose all children are shared (Thomson et al. 2002).

Before reviewing the relevant literature on childbearing after union dissolution one important remark has to be made upfront. Most empirical evidence comes from research on stepfamily fertility (Ivanova et al. 2014, Beaujouan 2011, Beaujouan and Solaz 2013, Thomson et al. 2002, Vikat et al. 1999). The analytical samples for those studies often include both women who had their pre-union children in partnership and those who entered motherhood outside the union. Furthermore, since per definition one of the partners needs to be parent at the onset of stepfamily, existent studies have not only focused on mothers' continued childbearing but also on first births to childless

mothers whose partner has had pre-union children. Other studies have examined all births following union dissolution (mainly after divorce) including also those to single mothers (e.g. Brown 2000, Jefferies et al. 2000, Rindfuss and Bumpass 1977). More recently a growing body of literature has also investigated childbearing across multiple partnerships regardless couple's co-residence status (Carlson and Furstenberg 2006, Guzzo 2014, Guzzo and Furstenberg 2007a, b, Lappegård and Rønsen 2013, Thomson et al. 2014). Hence, the existent studies that have looked at interrelation between childbearing, union instability and repartnering have examined childbearing after union dissolution from different perspectives.

II.6.1 Pre-union fertility

A large body of literature has investigated the role of pre-union children on childbearing behaviour in repartnering (e.g. Buber and Prskawetz 2000, Griffith et al. 1985, Ivanova et al. 2014, Jefferies et al. 2000, Kalmijn and Gelissen 2007, Prskawetz et al. 2003, Stewart 2002, Thomson et al. 2002, Thomson 2004, Vikat et al. 1999). As already mentioned, the results are highly mixed and depend on the measurement of women's fertility (number, age of the youngest child and co-residence), information available about partner's fertility and partnership history, and analytical strategy, e.g. whether only women's, couples' or separately women's and men's pre-union children are considered (Buber and Prskawetz 2000, Griffith et al. 1985, Henz and Thomson 2005, Ivanova et al. 2014, Jefferies et al. 2000, Vikat et al. 1999, 2004, Thomson et al. 2002). This section discusses briefly the most relevant factors related to stepfamily fertility, particularly to the risk of having first shared child⁶. Furthermore, although previous fertility may have a different effect on women's and men's childbearing behaviour after separation (Ivanova et al. 2014, Vikat et al. 1999), the review focuses only on the effect of women's or couples' birth risks in repartnering, i.e. if previous studies have examined

⁶ Numerous studies have also examined second birth risks within repartnering showing that the effect of previous children may differ from the one reported for first births within a new union (Beaujouan and Solaz 2013, Holland and Thomson 2011, Vikat et al. 1999, 2004).

childbearing in higher order unions from the perspective of female and male respondents separately the results are reported only for women.⁷

Number of children

Childbearing within repartnering is likely to be influenced by women's parity on the onset of new union (Brown 2000, Bumpass 1984, Steward 2002, Wineberg 1990). Childless women may want to enter motherhood as this marks transition into adulthood. Mothers of one child may want to give a sibling to the first offspring, which can be driven by a two-child family norm, in some countries, or a negative perception of an only child (Griffith et al. 1985, Jefferies et al. 2000). However, mothers of two and more children may be reluctant to have an additional child with the new partner, if they have already reached their desired number of children. Generally, an increasing number of pre-union children is assumed to be negatively associated with women's childbearing in a new relationship as having an additional child would increase the costs of childrearing (Bumpass 1984, Steward 2002, Wineberg 1990, Vikat et al. 2004).

The empirical results on the effect of number of children on fertility within repartnering are inconsistent however. Many studies have found no effect of **women's number of children** on childbearing within repartnering which supports the commitment hypothesis (Griffith et al. 1985, Jefferies et al. 2000, Meggiolaro and Ongaro 2010). Some research has shown no significant differences between childless women and mothers with one pre-union child, but significantly lower birth risks for mothers with two or more children at the beginning of repartnering (Bumpass 1984, Wineberg 1990). Finally, some evidence suggests that pre-union children reduce women's risk of having child after union dissolution irrespective the number (Brown 2000).

Furthermore, numerous studies have demonstrated that having a shared child in a new partnership may depend on **couple's combined number of children**, since larger number of children indicates higher costs of having an

⁷ Few studies have looked at gender differences in childbearing within higher order union (Beaujouan 2011, Beaujouan and Solaz 2013, Buber and Prskawetz 2000, Ivanova et al. 2014, Kalmijn and Gelissen 2007, Thomson et al. 2002). Since men's partners in higher order unions are likely to be never married women and women's partners in repartnering are likely to be married before, the effect of pre-union children on childbearing within repartnering is likely to differ by gender (Buber and Prskawetz 2000)

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additional child (Buber and Prskawetz 2000, Stewart 2002, Thomson et al. 2002, Vikat et al. 1999, 2004, Wineberg 1990). Empirical results are inconsistent. Vikat et al. (1999) have found no significant effect of the number of stepchildren on birth risks in a new union in Sweden. On the other hand, Vikat et al. (2004) have demonstrated for Austria and Finland that stepchildren decrease birth risks in a new union regardless the number. Finally, a strong negative effect of couples' combined number of children on fertility in stepfamilies has been documented for couples with two or more pre-union children in Austria (Buber and Prskawetz 2000).

Another set of studies have also compared **parity-specific progression** between families with shared and stepchildren (Vikat et al. 1999, Thomson et al. 2002, Thomson 2004). In Sweden, the second birth risks are higher for repartnered women whose first child was born before current union (and resides with mother) than for women whose first child was born in the current partnership. For Austria, Finland, France in West Germany, Thomson et al. (2002) have shown decreasing birth risks if couple's combined parity is larger than two (both shared and stepchildren). However, the effect of stepchildren on having an additional child is weaker than that of shared children (Thomson 2004, Vikat et al. 2004). For instance, in various European countries, couples with two stepchildren have significantly higher desire to have a shared child (third child in combined parity) than couples with two shared children (Thomson 2004).

Age of the youngest child

Many scholars have discussed the importance of the age of the youngest child in childbearing behaviour to repartnered mothers (Buber and Prskawetz 2000, Holland and Thomson 2011, Ivanova et al. 2014, Jefferies et al. 2000), suggesting that it may be equally or even more important for childbearing in a new union than number of pre-union children. The age of the youngest child determines the **spacing** between births (Griffith et al. 1985) and thus may have implications for women's life-course and half-siblings' relationship (Holland Thompson 2011, Jefferies et al. 2000, Bernstein 1997). Mothers may be reluctant to extend their childbearing and childrearing period due to the negative consequences for their professional career (Jefferies et al. 2000) or

because of social age norms related to motherhood (e.g. Liefbroer and Billari 2010, Mynarska 2010, Van Bavel and Nitsche 2013). Also, women whose youngest child is school-aged or older are likely to be closer to the biological limits of fertility. Further empirical evidence suggests also a preference for spacing between the stepchildren and the common child of two to three years (Holland and Thomson 2011). Finally, the larger the age difference between the pre-union child and the shared child in the new union, the lower may be the value of a new born as a sibling to the older child (Holland and Thomson 2011, Bernstein 1997). Previous research has provided consistent evidence that mothers' risk of having another child in repartnering decreases with the age of the youngest child, in particular when the youngest pre-union child is older than five (Buber and Prskawetz 2000, Holland and Thomson 2011, Ivanova et al. 2014, Jefferies et al. 2000).

Children's place of residence

Empirical evidence for the impact of place of residence of pre-union children on childbearing within repartnering is scarce and inconclusive. Buber and Prskawetz (2000) have shown for second unions in Austria that couples with two or more resident children have significantly lower birth risks than childless couples. However, couples with one child in the household and childless couples do not differ significantly in their fertility behaviour within second union. These results for Austria have been confirmed by Vikat et al. (2004). The opposite findings have been documented by Vikat et al. (1999) for Sweden, where couples with one co-resident child have 22% higher risks of having an additional child than couples with no children. Yet, couples with two or more co-resident children do not differ in their birth risks from childless couples⁸.

Likewise, the role of non-resident children on couple's birth risk in a new union is unclear. On the one hand, some studies have reported that the effect of non-resident children on the risk of having a (first) shared child in a new union is insignificant (Vikat et al. 1999 in Sweden, Buber and Prskawetz 2000 in Austria). On the other hand, Vikat and colleagues (2004) have demonstrated a significant negative effect of non-resident children on birth risks in new partnerships in Austria and Finland. Nevertheless the effect of

⁸ However, the Swedish data does not provide any information about the number of children who joined the household at the beginning of repartnering nor on the number of non-resident children.

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non-resident children on birth risks in repartnering is somewhat weaker than that of co-resident children (ibid).

In addition, a few studies have suggested that birth risks depend on the configuration of women's and men's pre-union children in the household. For instance, women's pre-union children have a stronger negative effect on birth risks in the new union than men's pre-union children (Vikat et al. 2004). Buber and Prskawetz (2000) have shown particularly high birth risks for childless women in Austria whose partner brought one co-residential child in the second union.

II.6.2 Partnership history

Higher order unions may differ substantially from first unions, and thus fertility behaviour is likely to vary across partnerships (Ivanova et al. 2014). Childbearing within repartnering is often determined by the interplay between partners' partnership histories and their parenthood statuses. First, women who repartner to a man for whom the new established union is a first partnership are likely to show different childbearing behaviour from women whose partner has been already married or cohabited before, and vice versa (Buber and Prskawetz 2000). Secondly, repartnering may occur between individuals of whom one is already a parent and the other one is still childless. The motives for childbearing in such unions are likely to vary between the partners. However, it may be assumed that childbearing within repartnering among childless individuals resembles fertility behaviour of childless couples in the first union as it may be driven by desire for both parenthood and commitment (Ivanova et al. 2014).

Union type

Four different partnership trajectories arise while investigating women's childbearing after union dissolution depending on first fertile and subsequent union type: (1) women enter motherhood in marital union, divorce the child's father and eventual remarry (type " M_1-M_s ": marriage – remarriage) (indexes denote the first and the subsequent fertile unions), (2) women enter motherhood in marriage, divorce the child's father and repartner forming a cohabiting union (type " M_1-C_s ": marriage – cohabitation), (3) women enter

motherhood in cohabitation, separate from the child's father and marry a new partner (type " C_1-M_5 ": cohabitation – marriage), and (4) women enter motherhood in cohabitation, separate from the child's father and repartner forming a new cohabiting union (type " C_1-C_5 ": cohabitation – cohabitation).

Earlier research has traditionally examined childbearing in repartnering of type M_1-M_5 (Bumpass 1984, Griffith et al. 1985, Rindfuss and Bumpass 1977, Thornton 1978, Wineberg 1990). A few studies have looked explicitly at the post-marital fertility within cohabitation (M_1-C_5) (Brown 2000). More recently, however, a growing number of studies have investigated fertility following marital dissolution within a broader defined co-residential union, i.e. cohabitation or remarriage (Ivanova et al. 2014, Jefferies et al. 2000, Meggiolaro and Ongaro 2010, Thomson et al. 2002, Vikat et al. 1999). Analysing childbearing after a non-marital birth to a cohabiting partner (C_1-M_5 and C_1-C_5) is more problematic as it mainly belongs to the research field examining non-marital births in general. Many studies, predominantly coming from the US, do not differentiate between first births to single mothers and those within cohabitation (Anderson and Low 2002, Bzostek et al. 2012, Graefe and Lichter 2007). However, since in the US American context, non-marital births are often teen pregnancies to single mothers (Thomson 2014), the results are likely to differ to women who enter motherhood in a co-resident partnership (Guzzo and Furstenberg 2007b). Continued childbearing of type C_1-C_2 may be closely related to serial cohabitation. Both types C_1-M_2 and C_1-C_2 are mainly discussed, although often indirectly, within the multi-partner fertility framework (Carlson and Furstenberg 2006, Guzzo and Furstenberg 2007b). Finally, a few studies have also looked at childbearing after dissolution of any type of union and without distinguishing the type of repartnering but rather focusing on a certain union order, e.g. second unions (Beaujouan 2011, Beaujouan and Solaz 2008, Buber and Prskawetz 2000, Ivanova et al. 2014, Jefferies et al. 2000, Meggiolaro and Ongaro 2010, Thornton 1978, Wineberg 1990).

Most studies controlling for the type of the higher order unions, have consistently found that women married in repartnering have significantly higher birth risks than cohabiting women (Beaujouan and Solaz 2013, Buber

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and Prskawetz 2000, Ivanova et al. 2014, Jefferies et al. 2000⁹, Meggiolaro and Ongaro 2010, Vikat et al. 1999). Less scholarly attention has been paid to the effect to the type of first union on childbearing after union dissolution. Beaujouan (2011) examining fertility within second unions in France has found no differences between women cohabiting, married after cohabitation and married directly at first union. First union type has also no effect on childbearing within second unions in Austria (Buber and Prskawetz 2000). However, both studies have examined births of all parities, i.e. including childless women, and it is also unclear whether women entered motherhood within first union, before it or in repartnering.

A few studies have investigated the role of premarital cohabitation in childbearing among divorced women. The results are mixed, however. While some studies have found a positive effect (Jefferies et al. 2000) others reported no differences in childbearing after marital union dissolution between women cohabiting prior to marriage and those who married directly (Brown 2000).

Partner's partnership history

Finally, some studies have suggested that a partner's previous union history affects women's childbearing within repartnering. Jefferies and colleagues (2000) have shown for the UK that the risk of having a birth is particularly high among divorcees who remarry to never married men. This may be because decisions about childbearing among couples where both partners were previously married are also likely to be determined by partner's obligations to children from previous unions. However, in the Netherlands divorced women who repartner with previously married men do not differ in their childbearing behaviour from divorcees whose partners have never been married (Ivanova et al. 2014).

II.6.3 Other determinants of childbearing within repartnering

Although research has examined mainly the role of pre-union children, doubtlessly the most salient factor in childbearing after separation is women's age. Age at union dissolution has a strongly negative effect on childbearing in

⁹ In comparison to single divorced women, however parameter estimate is larger for remarried than for cohabiting women.

higher order unions as it reflects the biological limits on females' fertility (Beaujouan and Solaz 2013, Brown 2000, Meggiolaro and Ongaro 2010, Rindfuss and Bumpass 1977, Wineberg 1990) or current age (Ivanova et al. 2014, Jefferies et al. 2000) or age at start of repartnering (Beaujouan 2011, Buber and Prskawetz 2000, Bumpass 1984). Some studies have demonstrated a link between age at first union formation (mainly marriage) and childbearing after union dissolution (Rindfuss and Bumpass 1977). This association results mainly from the negative effect of young age at union formation on union stability (Berrington and Diamond 1999).

Evidence on the role of women's education on childbearing following union dissolution is also mixed. Whereas some studies have reported negative educational gradient (e.g. Brown 2000 for the US, Beaujouan and Solaz for France, Jefferies et al. 2000 for the UK) others have found no effect (Beaujouan 2011, Carlson and Furstenberg 2006 for the US, Ivanova et al. 2014 for the Netherlands, Meggiolaro and Ongaro 2010 for Italy. However, women's employment status seems to matter; employed women have lower risks of birth after union dissolution (Meggiolaro and Ongaro 2010).

Finally, the risk of childbearing decreases with duration since union dissolution (Jefferies et al. 2000, Meggiolaro and Ongaro 2010) and time since repartnering (Buber and Prskawetz 2000, Thomson et al. 2002). However, the risk of having a child is the highest in the first (few) two years of repartnering; a finding documented for the US (Wineberg 1990) and largely for the European countries (Holland and Thomson 2011, Ivanova et al. 2014, Thomson et al. 2002, Vikat et al. 1999, 2004).

II.6.4 Multi-partner fertility (MPF)

As union instability has risen and hence childbearing decisions are likely to be made across multiple partnerships, more recent literature includes higher order unions and births to non-resident partners (Carlson and Furstenberg 2006, Daniel R. Meyer et al. 2005, Guzzo and Furstenberg 2007a, b, Lappegård and Rønsen 2013, Thomson et al. 2014). However, multi-partner fertility (MPF) is not a new phenomenon (Thomson et al. 2014). As mortality was high at the beginning of the 20th century many individuals would experience partner's death during the reproductive career (Thomson et al.

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2014). Forming a new union, particularly remarriage, was relatively common and so was the childbearing if the repartnered individuals were still in the childbearing years (ibid). Nowadays, by contrast, MPF results mainly because childbearing occurs out of a union or in instable partnerships (ibid.).

With increasing divorce rates and rise in less stable cohabiting unions, particularly serial cohabitation, predominantly at younger ages, the prevalence of MPF is likely to increase (Guzzo 2014). However, mainly due to high data requirements, empirical studies on the prevalence of MPF are still rare and the estimates vary considerably by analytical sample and tend to underestimate the phenomenon, particularly among men (see Guzzo 2014, for discussion on challenges related to measuring MPF). Recent evidence using comparable definitions and method has shown that among all mothers 23% in the US, 16% in Norway, around 13% in Sweden and 12% in Australia have children with two or more partners (Thomson et al. 2014). For men, estimates suggest that in the US 17% of fathers (Guzzo and Furstenberg 2007) and in Norway 13% of fathers born in the early 1960s (Lappegård et al. 2011) have children with two or more mothers. The lower levels of MPF among men than women are likely to result from greater fertility underreporting among men, particularly regarding non-marital births (Joyner et al. 2012, Rendall et al. 1999), and because women start childbearing at younger ages than men (Guzzo 2014).

In the US, but also in Scandinavian countries and Australia, female MPF is mainly linked to young maternal age at first birth, often unintended and out of partnership, and lower educational level (Carlson and Furstenberg 2006, Guzzo and Furstenberg 2007a, b, Thomson et al. 2014). Furthermore, partnership context at first birth seems also to play an important role as women who entered motherhood outside marriage (often unpartnered) and those whose relationship to the father of the first child is weak, are more likely to have children with more than one partner (Guzzo and Furstenberg 2007b). Finally, multipartner fertility is more likely among mothers with higher order births (Carlson and Furstenberg 2006, Thomson et al. 2014).

II.7 Summary

With the rising union instability and the prevalence of less stable cohabiting unions, repartnering has become increasingly common in Europe and the United States. An extensive body of literature has examined the determinants of repartnering. However, very little attention has been paid to the dynamics of repartnering, i.e. level, type and pace of second union formation, in Western societies. Previous studies have often focused on the United States, or a limited selection of European countries, while many regions have remained understudied. Consequently, cross-national studies on family demographic behaviour after union dissolution are scarce (Ivanova et al. 2013, Prskawetz et al. 2003, Skew et al. 2009, Vikat et al. 1999, 2003, Thomson et al. 2002, 2014.). In addition, research conducted thus far, has traditionally looked at repartnering after marital union dissolution while only a handful of studies have included cohabitation. Similarly, empirical studies have investigated childbearing either among divorcees or without differentiating living arrangements in first unions. Therefore, little is known on the effect of cohabitation in first partnerships on subsequent union formation or childbearing after union dissolution. However, since cohabitators and married individuals have been shown to differ in a range of individual characteristics, they may also differ in their repartnering behaviour. Finally, given that many dissolved cohabiting unions involve children, more research on the role of cohabitation in continued childbearing after union dissolution, is needed.

This thesis addresses these gaps in the literature and has, to reiterate, the following objectives:

- (i) to provide a description of the state of repartnering dynamics across Europe and in the United States (Chapter III),
- (ii) to investigate the role of women's demographic characteristics at union dissolution in explaining repartnering behaviour in 14 European countries (Chapter IV), and
- (iii) to provide first insights into the effect mothers' partnership history on continuing childbearing after dissolution of first fertile union in five European countries (Chapter V).

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While examining differences in repartnering behaviour in Western societies (Chapter III and IV), this thesis draws on the NOA framework which has been proven useful in repartnering research (de Graaf and Kalmijn 2003, Ivanova et al. 2013). The investigation of mothers' continued childbearing after union dissolution (Chapter V) is based upon the empirical observation that new established unions often produce children (Buber and Prskawetz 2000, Griffith et al. 1985, Holland and Thomson 2011, Thomson et al. 2002b, Vikat et al. 1999, 2004, Wineberg 1990). In all three empirical chapters, in light with the process of the deinstitutionalisation of marriage, the attention is paid to the effect of first partnership type on family demographic behaviour following union dissolution, i.e. repartnering or subsequent birth risks. However, the type of repartnering and its impact on mothers' continued childbearing is also examined.

III. Changing dynamics of women's repartnering in contemporary Europe and in the United States¹⁰

Summary

Chapter III investigates cross-national differences in females' re-partnering patterns in contemporary Europe and in the United States. It provides a description of the state of repartnering dynamics, i.e. the level, pace and type (cohabitation or marriage) of second unions across countries and female birth cohorts. Using the Harmonized Histories, which contains cleaned and harmonized partnership histories collected from individuals in 14 European countries and in the United States, cumulative percentages and life-table estimates are applied. The results show large cross-national differences in the level of repartnering across birth cohorts. However, in all studied countries and across birth cohorts, second partnerships start predominantly with cohabitation. Furthermore, Western societies differ significantly in the pace at which repartnering occurs. The results indicate a strong positive relationship between the level of first union dissolution and the pace of repartnering in Europe and the US. In most countries the proportion of women who repartner within 5 years after dissolution of first union is either of a similar magnitude or slightly higher for previously cohabiting women than for previously married women.

¹⁰ Previous versions of this Chapter have been presented at: (i) 2014 Population Association of America Annual Meeting, Boston, United States, 1-3 May 2014 (Poster), (ii) Divorce Conference 2013, Oxford, United Kingdom, 26-28 September 2013 (Presentation), (iii) Workshop 'Life-Course Transitions after Separation: Stepfamilies, Lone and Non-residential Parenthood', Berlin, Germany, 4-5 July 2013 (Poster), and (iv) CFR seminar 'New Family Forms Following Family Dissolution: Consequences in/on Postmodern Society', Leuven, Belgium, 12-14 September 2012 (Presentation). The conference papers have been co-authored by Dr Brienna Perelli-Harris and Prof. Ann Berrington. The idea of the paper, all calculations and interpretations come from the author of the thesis. The co-authors contributed by providing comments and feedback on previous versions of the Chapter.

III.1 Introduction

Unions have become less stable over the past decades ending more often in divorce or separation. Consequently, an increasing number of individuals re-enter the partner market after union dissolution and may eventually form a new partnership. A large body of literature has mainly examined repartnering behaviour in a single country (Beaujouan 2012, Bumpass et al. 1990, Jaschinski 2009, Meggiolaro and Ongaro 2008, Poortman 2007, Sweeney 1997, 2002, Wu and Schimmele 2005) or only in a few countries in comparison (Blanc 1987, Ivanova et al. 2013, Skew et al. 2009). Also, previous research has largely focused on the effect of the demographic and socio-economic characteristics of individuals (e.g. gender, age, previous fertility and education) and those of a previous partnership (e.g. duration, number of previous partners and exit status) on the chances of second union formation (e.g. Blanc 1987, Bumpass et al. 1990, de Graaf and Kalmijn 2003, Ivanova et al. 2013, Poortman 2007, Shafer and James 2013, Teachman and Heckert 1985a, Wu 1994). Yet, despite the numerous studies investigating the determinants of repartnering in detail, in some countries, little is known about the prevalence and the type of second unions in cross-national comparison. A study conducted by Prskawetz and colleagues (2003) is the only one, to the best of our knowledge, which has provided comparisons of second and third partnerships across Europe. However, the analyses, based upon the Fertility and Family Surveys (FFS), were restricted to women aged 35 or younger in the early 1990s and did not distinguish between union types. Therefore, there is still a great need to investigate the increase and diversity in repartnering over time and across countries.

This chapter fills this gap and provides a description of the state of repartnering dynamics in the United States and 14 European countries (Austria, Belgium, Bulgaria, Estonia, France, Italy, Lithuania, the Netherlands, Norway, Poland, Romania, Russia, Spain, and the United Kingdom). Much of the existing re-partnering literature comes from the US (Bumpass et al. 1990, Koo et al. 1984, McNamee and Raley 2011, Mott and Moore 1983, Sweeney 1997, 2002, Teachman and Heckert 1985b). However, the results may not necessarily hold for Europe, for which generally different family patterns have been

documented (Andersson 2002, 2003, Cherlin 2009, Lesthaeghe and Neidert 2006, Raley 2001).

In addition, this Chapter examines repartnering dynamics of previously married and cohabiting women. Studies conducted thus far have predominantly looked at repartnering after divorce (Bumpass 1990, de Graaf and Kalmijn 2003, Ivanova et al. 2013, Jaschinski 2011, Meggiolaro and Ongaro 2008, Shafer and James 2013, Sweeney 1997, Wu 1994), while only few have included formation of a new partnership following a non-marital union dissolution (e.g. Blanc 1987, Poortman 2007, Skew et al. 2009, Wu and Schimmele 2005). However, since cohabiters have been found to differ from married women in their gender-role and family attitudes (e.g. Clarkberg et al. 1995), subjective well-being (Soons and Kalmijn 2009), relationship quality (Wiik et al. 2009, Wiik et al. 2012), as well as in demographic characteristics such as fertility (e.g. Andersson and Philipov 2002, Kiernan 2001, Perelli-Harris 2014, Wu and Musick 2008), individuals who have experienced a non-marital union dissolution may show different re-partnering behaviour than divorcees (Blanc 1987, Wu and Schimmele 2005). Previously cohabiting women are likely to differ from divorcees in their incentives to repartner as well as the constraints and opportunities they may face in repartnering market (de Graaf and Kalmijn 2003, Ivanova et al. 2013).

The aim of Chapter III is to provide insights into women's repartnering dynamics in Europe and in the United States across three birth cohorts. This Chapter presents a general information on the prevalence of repartnering at the population level and a more analytical description of repartnering dynamics in terms of the pace of second union formation. In addition, in order to improve our understanding of repartnering behaviour across Western societies, we discuss also the family demographic context for repartnering by establishing the cross-national variation in the population at risk of second union formation. For this purpose, the following research questions are addressed:

- (i) What is the proportion of all women who enter a first union by union type?
- (ii) What proportion of all women experiences a first union dissolution by union type?

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By describing the population of women who re-entered the partner market, we focus on changes in first union formation and the prevalence of union dissolution by first union type at the population level. For this purpose, and referring to the de-institutionalization of marriage, cohabiting women whose first union ended without transition into marriage are distinguished from divorcees who either entered first marital union directly or after a period of cohabitation. In the next step, the prevalence of repartnering at the population level is examined by answering the research question:

(iii) What is the proportion of all women who ever repartner by union type?

Finally, this Chapter moves away from the population level and provides a more analytical description of repartnering dynamics by investigating the changes in the pace of second union formation across birth cohorts and by first union type. More specifically, we investigate:

(iv) What proportion repartner by a given period after union dissolution?

And,

(v) Do previously married and cohabiting women whose first union dissolved differ in the pace at which repartnering occurs?

III.2 Theoretical consideration and expectations

III.2.1 Cohabitation versus marriage

Second unions are more likely to start with cohabitation

The changing character of marriage, rising divorce rates and increasing prevalence of cohabitation may have general implications for second union type. Divorcees are likely to learn from their experience and become more cautious about forming a new union and committing themselves to a new partner (Poortman 2007). Thus, starting a second union with cohabitation may seem a rational decision. Non-marital unions may involve less risk as they are generally considered to have a lower emotional investment (Wiik et al. 2009) and a weaker economic consolidation (Lyngstad et al. 2011). On the other hand, post-marital cohabitation offers many benefits which are similar to those from marriage, such as companionship and intimate relationship. At the same

time, since cohabitation is less legally regulated than marriage the monetary, emotional and social costs of its dissolution may be lower (Perelli-Harris et al. 2014, Perelli-Harris and Sánchez Gassen 2012). A similar argument may also hold for former cohabitators who, after experiencing the fragility of their first partnership, are likely to opt again for a non-marital second union rather than direct marriage. Indeed, a few empirical studies have provided some evidence that second unions often begin with cohabitation, while direct marriages are rather rare in repartnering (e.g. in Sweden and Norway: Blanc 1987, in the UK: Kiernan and Estaugh 1993, in the Netherlands: Poortman 2007, in Canada: Wu and Schimmele 2005). Hence, we expect that in all Western societies repartnered women more often decide to enter a cohabiting second union as opposed to direct marriage.

Cohabitators will repartner more than divorcees

Although cohabitation seems a preferable second union type for all individuals who experienced first union dissolution, women's repartnering behaviour may vary by first union type. Cohabiting women have been shown to differ from married women in a wide range of aspects such as gender-role and family attitudes (e.g. Clarkberg et al. 1995, Lesthaeghe 2010), subjective well-being (Soons and Kalmijn 2009), relationship quality (Wiik et al. 2009) or fertility (Kiernan 2002, Perelli-Harris 2014, Wu and Musick 2008) which may also affect their second union formation. In addition, since marriages are usually of a longer duration than non-marital unions (Andersson 2002, 2003, Bramlett and Mosher 2002, Heuveline et al. 2003), divorced women may lack recent experience in partner search and dating (Koo et al. 1984). Furthermore, the level of intrapersonal commitment and the joint investment are likely to be higher in marriage than in cohabitation (Poortman and Mills 2012) which suggests higher economic, social and psychological costs of divorce than separation from a non-marital partner.

A large body of literature has documented women's financial deterioration following union dissolution, which is mainly related to the presence of custodial children, the gender income gap and the woman's lower labour market attachment (Andreß et al. 2006). The adverse consequences of union dissolution on women's economic wellbeing have been found among both previously married and cohabiting women. However, divorced women

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experience somewhat stronger adjusted household income decline following union dissolution than cohabitators (Avellar and Smock 2005, de Regt et al. 2012, Manting and Bouman 2006). This is mainly explained by the fact that women are likely to be more economically dependent on partner's income in marriage than in cohabitation; first, married couples more often than cohabitators pool their income (Lyngstad et al. 2011); second, married couples show a higher gender specialization in paid and unpaid work which makes married women usually less attached to the labour market (Barg and Beblo 2012, Bianchi et al. 2014) and hence their relative contribution to household income is on average lower than that of cohabiting women.

Divorce may affect the willingness and the motivation for repartnering in a different way than separation influences second union formation among previous cohabitators. Generally, union dissolution generates a series of changes in an individual's life, which apart from estrangement from the intimate partner, often involves changes in the custody of dependent children, deterioration of standard of living, decline in social network size and moving houses (Amato 2000). Divorce is a long-term, multifaceted process, which starts long before and goes well beyond it is legally obtained (Amato 2000). A large body of literature has documented a negative association between divorce and mental health¹¹; divorcees report more symptoms of psychological distress (depression and anxiety), more risky health behaviour (substance use), and lower level of happiness and life satisfaction than their married counterparts (for review see: Amato 2000, 2010, Amato and James 2010, Härkönen 2013). Recently, a few studies have provided evidence that also separation from a non-marital partner increases psychological distress (Blekesaune 2008, Kamp Dush 2013, Tavares and Aassve 2013, Williams et al. 2008, Wu and Hart 2002). Although, cohabitators generally experience lower decline in mental wellbeing after union dissolution than divorcees, some studies have suggested that the effect of first union disappears once parenthood status is controlled for (Tavares and Aassve 2013, Kamp-Dush 2013). We believe that the psychological consequences of union dissolution are

¹¹ It is highly debatable whether the lower level of mental health among divorcees in comparison to married individuals results from causation or due to selection effects (for review, please see Amato (2000, 2010), Amato and James (2010), Härkönen (2013)).

important as they may have implication on the length of recovery period and hence the willingness to repartner.

Repartnering may, in many ways, counteract the negative consequences of union dissolution (for review, please see Amato (2000, 2010), Amato and James (2010), Härkönen (2013)). Forming a new union is likely to improve women's economic situation (de Regt et al. 2012, Dewilde and Uunk 2008, Jansen et al. 2009, Ozawa and Yoon 2002) and increase the psychological well-being (Demo and Acock 1996, Marks and Lambert 1998, Soons et al. 2009, Wang and Amato 2000), even in cases of high conflict with previous spouse (Symoens et al. 2014). However, whether women repartner depends on the interplay of their needs, attractiveness to potential partner and the opportunities to meet and mate (see Chapter II.5). Previous literature suggests that the economic need to repartner is higher among divorced than among previously cohabiting women. However, their higher economic need may also make divorcees less desirable partners. At the same time divorced women may be less attractive to a potential partner in a setting where divorce is stigmatized (Meggiolaro and Ongaro 2008). Finally, given the high psychological costs of divorce, previously married women may need a longer recovery period or be more cautious about entering a new relationship and thus be less willing to repartner. All in all, we expect that previous cohabitators will repartner at a quicker pace than divorcees.

III.2.2 Cross-national variation in repartnering behaviour

Despite the general increase in the prevalence of cohabitation, the decline in the propensity to marry and the rise in divorce rates in Western societies (Kennedy and Bumpass 2008, Kiernan 2001, 2002, 2003), European countries and the US differ significantly in the extent and the pace at which family demographic changes have occurred (Andersson 2002, 2003, Andersson and Philipov 2002, Billari and Liefbroer 2010, Kalmijn 2007, Sobotka 2008, Sobotka and Toulemon 2008). Therefore, we expect considerable cross-national differences in the population at risk of repartnering and in the second union formation depending on the level of the deinstitutionalisation of marriage. We expect that repartnering levels will be higher and second union formation will occur at a faster pace in countries where union dissolution is

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increasingly common, cohabitation is widespread and females' family-life trajectories are more de-standardized.

Nevertheless, we recognise that Western societies differ in the socio-economic, institutional and cultural context in which repartnering is embedded (Hajnal 1965, Reher 1998). Contextual factors are important because they affect the interplay between women's need to repartner and their opportunities and attractiveness in the repartnering market (Graaf and Kalmijn 2003, Ivanova et al. 2013). We expect that in more secularized societies with weaker family ties, where cohabitation and divorce are more socially accepted, repartnering levels will be higher than in religious countries with strong marriage norms and a remaining stigma attached to divorce. The effects of welfare state policy and labour market structure are less clear, however, and depend largely on country-specific regulations. For instance, high employment rates and accessible public childcare imply that women have better opportunities to meet and mate which should have a positive effect on repartnering. On the other hand, repartnering for economic reasons may be more important in countries with low female economic autonomy (Andreß et al. 2006), where female employment rates are low and welfare benefits to support single mothers are limited. Although this Chapter has a descriptive nature and the contextual effects will not be empirically tested, we recognize that countries differ in their socio-economic and institutional contexts in which repartnering occurs. The following section describes family demographic developments and generates expectations for countries included in the study.¹² Note, however, that whilst presenting trends in Europe, we deliberately refrain from using typologies established in family research to group countries, for instance regarding welfare regimes (Esping-Andersen 1990, 1999) or family support systems (Andreß et al. 2006), as none of these fully reflect the strong differences in first partnership behaviour, i.e. in terms of timing, type and the stability of first unions, across the continent (Sobotka and Toulemon 2008). Hence, we discuss repartnering dynamics in Europe by referring to the broadly defined geographical regions (i.e. Northern, Western, Southern and Eastern European

¹² Although we acknowledge the heterogeneity of family behaviour within a country (Klüsener et al. 2013, Kulu 2012, Meggiolaro and Ongaro 2008), the examination of a possible regional variation in repartnering dynamics is beyond the scope of this study and remains a task for future research.

countries) by acknowledging the cultural and socioeconomic idiosyncrasies of the studied countries.

Nordic countries (Norway)

Scandinavian countries are considered as the forerunner in the family changes described by the Second Demographic Transition (Lesthaeghe 2010, Van de Kaa 1987). This part of Europe is characterised by late entry into marriage, low marriage rates and high union instability (Sobotka and Toulemon 2008). Cohabitation is widespread and viewed as a normative stage in family formation process (Syltevik 2010) and an important setting for childbearing (Heuveline and Timberlake 2004). However, since cohabiting unions are of shorter duration and around half of marriages are likely to end in dissolution (Sobotka and Toulemon 2008, Figure I.1), we presume a high level of repartnering in the Nordic countries.

Western Europe (Austria, Belgium, France, the Netherlands, and the United Kingdom)

The Western European countries differ considerably from each other. In all studied countries non-marital unions are widespread (Figure I.2). The percentage of cohabiting women is particularly high in France, followed by the UK, the Netherlands and Belgium in that order (Figure I.2). Marriage rates have been continuously declining since the 1970s and are at a rather moderate level in comparison to the rest of the continent (Sobotka and Toulemon 2008). Furthermore, divorce rates are very high; however, they vary considerably across Western Europe (Divorce Atlas 2012). On the top of the scale is Belgium where the Total Divorce Rate (TDR) in 2005 indicated that 58% of marital unions will end up in divorce in the long run. In Austria, France and the UK around a half of marriages will eventually dissolve. The corresponding figure for the Netherlands is somewhat lower (TDR=0.37). Given the family demographic patterns, we expect a relatively high level of repartnering, though lower than that in Norway, with second cohabiting unions chosen over marriage.

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Southern Europe (Italy and Spain)

In Mediterranean countries, marriage is still the dominant family arrangement form while cohabitation is not very common (Figure I.2). In addition, divorce in Italy and Spain was introduced comparatively late in 1971 and 1981, respectively.¹³ We speculate that the influential position of the Catholic Church (Elzinga and Liefbroer 2007), and both strong family ties and social control (Reher 1998), will result in a low percentage of women who experience first union dissolution and eventually repartner at the population level. However, as economic consequences of union dissolution in those countries are likely to be very high, given the low female labour market participation and the rudimentary family support system (Andreß et al. 2006), women may have high incentives to repartner faster. Yet, the persistent stigma of divorce may diminish women's repartnering chances (Meggiolaro and Ongaro 2008). Our expectations are ambiguous regarding the second union type. On the one hand, the traditional family system and the impact of religion would suggest that direct marriage would be the most prevalent type of second union. However, as union dissolutions in this region are not very common, we argue that divorced and separated women are very selective in their individual characteristics and thus more likely to opt for a not-traditional family form, i.e. cohabitation. This argument is strengthened by the recent literature which suggests a transition from traditional to modern family behaviours in both societies (Bernardi and Martínez-Pastor 2011, Meggiolaro and Ongaro 2008).

Eastern Europe (Bulgaria, Estonia, Lithuania, Poland, Romania and Russia)

Traditionally, Eastern European countries have been characterised by strong marriage norms resulting in early and almost universal entry into marital first unions (Hajnal 1965, 1982). Cohabiting unions are rather short-lived and often pose a stage in the marriage process (Katus et al. 2007). The collapse of state socialism in the early 1990s brought profound changes in family demographic behaviour (Sobotka and Toulemon 2008), however. Marriage has been increasingly postponed and cohabitation has spread among younger birth cohorts (ibid., Figure I.2). However, in comparison to the rest of Europe,

¹³In Italy the time requested to finalize divorce after legal separation was reduced in 1987 from 5 to 3 years (Meggiolaro and Ongaro 2008).

marriage rates are still considerably high and the mean age at first marriage, despite the recent increase, has remained relatively low (ibid.).

Nonetheless, despite the increases in the divorce rates and in the prevalence of cohabitation, mainly after the 1990s, the differences among Eastern European countries are striking (Sobotka and Toulemon 2008). For instance, the high level of cohabitation and the moderate divorce rates make Estonia more similar to Scandinavian countries than to the rest of Eastern Europe (Katus et al. 2007). However, in Estonia cohabitation is usually short-lived and often represents a stage in the marriage process. Furthermore, although strong traditional values related to the influences of the Catholic Church in Lithuania and Poland result in low prevalence of cohabitation (Katus et al. 2007, Mynarska and Bernardi 2007), both countries differ considerably in the divorce trends. While marital union dissolutions are quite common in Lithuania, divorce rates reported for Poland belong to the lowest in Europe (Figure I.1). Despite slow increases in cohabitation and divorce in the 1990s, Bulgaria and Romania are still characterised by traditional family patterns (Sobotka and Toulemon 2008). Finally, although cohabitation in Russia has not yet become wide-spread, divorce rates belong to the highest in Europe.

We hypothesise that women in the previous socialist countries show, at least to a certain extent, similar repartnering behaviour to the one expected in southern European counterparts. Similarly to Mediterranean countries, family life trajectories in Eastern Europe are considered highly traditional, but the roots of the standardised life-courses originates from the time of social socialism. However, given the remarkable differences in union instability, we expect that the repartnering level varies significantly across Eastern European countries. First, we recognize the cultural idiosyncrasies of Poland and Romania. These two countries are considered as culturally conservative with more traditional family attitudes (Sobotka 2008) and a strong impact of the Catholic and Orthodox Church. Therefore, as cohabitation and divorce are much less prevalent in these countries, repartnering is likely to be at a very low level as well. Second, high divorce rates in Russia and Estonia (Klesment and Puur 2010), suggest a higher repartnering level.

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The United States

Scholars have pointed out that family patterns differ significantly between Europe and the United States (Andersson 2002, 2003, Cherlin 2009, Heuvelin et al. 2003, Lesthaeghe and Neidert 2006, Raley 2001). Generally, American families are characterised by a higher number of transitions in family life; cohabitation is more frequent and of a shorter duration, and marital unions end more often in divorce in the US than in Europe. Also, in cross-national comparison, the US shows the most de-standardized family-life (Elzinga and Liefbroer 2007). We expect that, at the population level, American women will repartner more often than their European counterparts. However, as the divorce rates have recently levelled off (Goldstein 1999, Raley and Bumpass 2003), women born in the youngest cohort may somewhat differ in their repartnering behaviour from women born in the oldest cohort. Furthermore, in-line with previous research, second unions will presumably start with cohabitation (Bumpass et al. 1991, Smock 2000, Sweeney 2010).

III.3 Data and method

Harmonized Histories

Our analyses use a unique cross-national data set “Harmonized Histories” created by the team of “The Non-marital Childbearing Network” (see www.nonmarital.org, Perelli-Harris et al. 2010). It contains cleaned and harmonized retrospective partnership histories collected from individuals in the United States (National Survey of Family Growth 1995, 2007) and within various European surveys: the British Household Panel Survey (2005), the Dutch Fertility and Family Survey (2003), the Polish Employment, Family and Education Survey (2006), the Spanish Fertility Survey (2006), and the Generations and Gender Surveys in Austria (2008), Belgium (2008), Bulgaria (2004), Estonia (2004), France (2005), Hungary (2004), Italy (2003), Lithuania (2006), Norway (2007), Romania (2005), and Russia (2004). Apart from partnership biography, the data set includes also respondent’s fertility history, highest education level and some other background measures, e.g. regarding parental home, ethnicity and religion. For some countries the characteristics of the partner are also available. However, it is important to recognize that

retrospective data may be subject to reporting errors. The date of marriage and birth are usually reported with high accuracy (Brewer 1994, Thompson et al. 1996). Retrospective cohabiting histories, on the other hand, tend to be less reliable, particularly in the distant periods or when the social acceptance is low (Hayford and Morgan 2008, Teitler et al. 2006). Consequently, our study may underestimate the prevalence of non-marital unions, particularly in older birth cohorts, short-term cohabiting unions or cohabitation in the settings where non-traditional family forms are less wide-spread.

Due to the differences in survey designs and to ensure cross-national comparability, the analyses are restricted to females' partnership biographies as in many surveys information on men was not collected (the United States, Spain, Italy), or the quality of data was very poor (Poland). Table III.1 presents the description of the samples for each country. We use a cohort approach for the analyses in this Chapter as previous literature has suggested that women in various birth cohorts may differ in their attitudes, expectations and resources which may affect their partnership behaviour (Lyngstad and Jalovaara 2010, Skew et al. 2009). Three different female birth cohorts are distinguished: 1945-54, 1955-64 and 1965-74. Depending on the country, the oldest respondents in the sample were around 60 years old and the youngest in their earlier 30s at the time of the survey. The differences in the year of the survey and the selected birth cohorts (e.g. Austria and Poland for which only women born in 1965-74 are analysed) result in a slight variation in women's age at the interview across countries and birth cohort. This implies that in countries with slightly older respondents at the time of interview (e.g. Austria, Belgium and Norway), the prevalence of union dissolution and repartnering at the population level may be marginally overestimated although the results for European countries remain widely comparable. However, note that since one of the NSFGs was conducted in 1995, American women in the older birth cohorts 1945-54 and 1955-64 are somewhat younger at the interview than women in the European countries. We acknowledge these age differences and the fact that the levels of first union dissolution and repartnering are possibly underestimated for those birth cohorts while interpreting the results.

Respondents are selected who ever formed a union and whose partnership histories were complete (year and month). In majority of the

Table III.1: Data source and description of the samples for each country

Country	Survey	Survey Year	Birth cohorts in survey	Aga at survey by birth cohort			Women in survey	Women in sample (*)
				1945-54	1955-64	1965-74		
Austria	Generations and Gender Survey	2008/09	1963-90	-	-	34-43	3001	1247
Belgium	Generations and Gender Survey	2008/10	1928-90	54-63	44-53	34-43	3728	1652
Bulgaria	Generations and Gender Survey	2004	1919-87	50-59	40-49	30-39	7007	3755
Estonia	Generations and Gender Survey	2004/05	1924-83	50-59	40-49	30-39	5034	2639
France	Generations and Gender Survey	2005	1926-87	51-60	41-50	31-40	5708	3059
Italy	Generations and Gender Survey	2003	1901-85	51-60	41-50	31-40	21454	10885
Lithuania	Generations and Gender Survey	2006	1926-83	49-58	39-48	29-38	5037	2410
NDL	Dutch Fertility and Family Survey	2003	1940-84	49-58	39-48	29-38	4229	2990
Norway	Generations and Gender Survey	2007/08	1927-88	53-62	43-52	33-42	7541	4033
Poland ⁽¹⁾	Polish Employment, Family and Education Survey	2006	1966-81	-	-	32-40	3005	1511
Romania	Generations and Gender Survey	2005	1925-87	51-60	41-50	31-40	6009	3287
Russia	Generations and Gender Survey	2004	1923-87	50-59	40-49	30-39	7038	3628
Spain	Spanish Fertility Survey	2006	1908-91	52-61	42-51	32-41	9737	4158
UK	British Household Panel Survey	2005/06	1925-89	51-60	41-50	31-40	7856	2684
US ⁽²⁾	National Survey of Family Growth	1995	1950-80	41-45	31-40	-	10847	5837
US ⁽³⁾	National Survey of Family Growth	2007	1961-93	-	-	33-42	7356	1968

Notes:

(1) The calculations for this Chapter were conducted in the first PhD year, and therefore, the data on Poland do not come from the Generations and Gender Survey which at that time was not yet included in the Harmonized Histories, but from the Polish Employment, Family and Education Survey (2006). Since the EFES has a much younger analytical sample, the analyses for Poland are restricted to the youngest birth cohort only.

(2) Birth cohort 1945-54 and 1955-64.

(3) Birth cohort 1965-74.

surveys, a union is defined as a co-residential partnership which lasts at least 3 months. Cases where respondents reported the same month of first union dissolution and second union formation as well as where partnership biographies were implausible (e.g. first union ended before or without it started) were excluded from the analytical samples. While investigating repartnering, we focus only on divorced or separated women as widows may differ in their unobserved characteristics and thus in their re-partnering behaviours. Also, since the death of the partner is not a main cause of union dissolution among the younger birth cohorts, the number of widowed women in our samples is too small to allow any meaningful interpretation. In case of marital dissolution, the *de facto* separation, not the date of divorce which might occur much later, is considered as the event ending spouses' co-residence. The overall sample size varies considerably across countries from 1440 women in Austria to 10885 in Italy.

Method

Repartnering is defined as forming a second co-residential union (living together) which lasts at least three months after experiencing a union dissolution from the first married or cohabiting partner. Since this Chapter has descriptive character, cross-national repartnering patterns are investigated using basic demographic methods of (i) percentages of women and (ii) life-table estimates (cumulative probabilities). These two methods are complementary in order to provide an accurate picture of second union formation. Percentages of women are a very useful tool to assess how common a certain demographic behaviour, e.g. ever experiencing first union dissolution, is in a country (Prskawetz et al. 2003). We use this approach to describe the population at risk of repartnering and to present the prevalence of second union formation. The focus is on the frequencies of repartnering in the entire female population. The advantage of percentages is that they enable us to identify cross-national differences of repartnering levels within a particular birth cohort. However, as women from different birth cohorts are exposed to repartnering risks for various lengths of time, no comparisons of trends across cohorts within a country are possible. Women born 1965-74 are comparably young and possibly they may have not yet experienced union dissolution or repartnering.

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Therefore, for the purpose of analysing changes in repartnering patterns life-table estimates are used. Life tables estimate the probabilities of entering a second union in predefined time intervals (months) after union dissolution. As women are exposed to the risk of repartnering for the same period of time, particularly 5 or 10 years, this approach enables us to detect changes in repartnering behaviour within a country across cohorts, and to compare the pace at which repartnering occurs between the countries within a cohort. The duration is measured in months passing from a marital or cohabiting union dissolution until the start of a second co-residential partnership. Women who experienced first union dissolution and have not repartnered by the time of the survey are right censored, i.e. they contribute to the population “at risk” until the date of the interview. In order to account for the right censoring, the Kaplan-Meier method (Product Limit Estimator) will be applied. This calculates the cumulative survival probability $S(x)$ of non-experiencing an event (i.e. staying single after union dissolution) from the beginning of observation to time x . $S(x)$ is defined as follows:

$$S(x) = p_0 \times p_1 \times \dots \times p_{x-1} = \prod_{n=0}^{x-1} p_n$$

where p_x denotes the conditional probability of surviving (i.e. not repartnering) the time interval x (given that the individual did not experience the event in previous time intervals). Following, the cumulative probabilities of repartnering (failure) $F(x)$ can be obtained as a complement to $S(x)$, i.e. $F(x) = 1 - S(x)$.

In both sets of analyses, if available, survey weights are applied in order to show nationally representative results.¹⁴

¹⁴ The version of Harmonized Histories available at the time when the analyses for this Chapter were conducted (first PhD year) included weights for most European countries apart from Bulgaria, Poland, Romania and Russia.

III.4 Results¹⁵

In order to give a broader picture of the pathways to repartnering, we will first provide general information on the population at risk of repartnering across cohorts and countries. We will then answer the first research question: what is the percentage of women who enter first unions by union type and what percentage of unions dissolve by union type?

III.4.1 Population at risk of repartnering

Percentage of women who experience first union formation, by union type and birth cohort

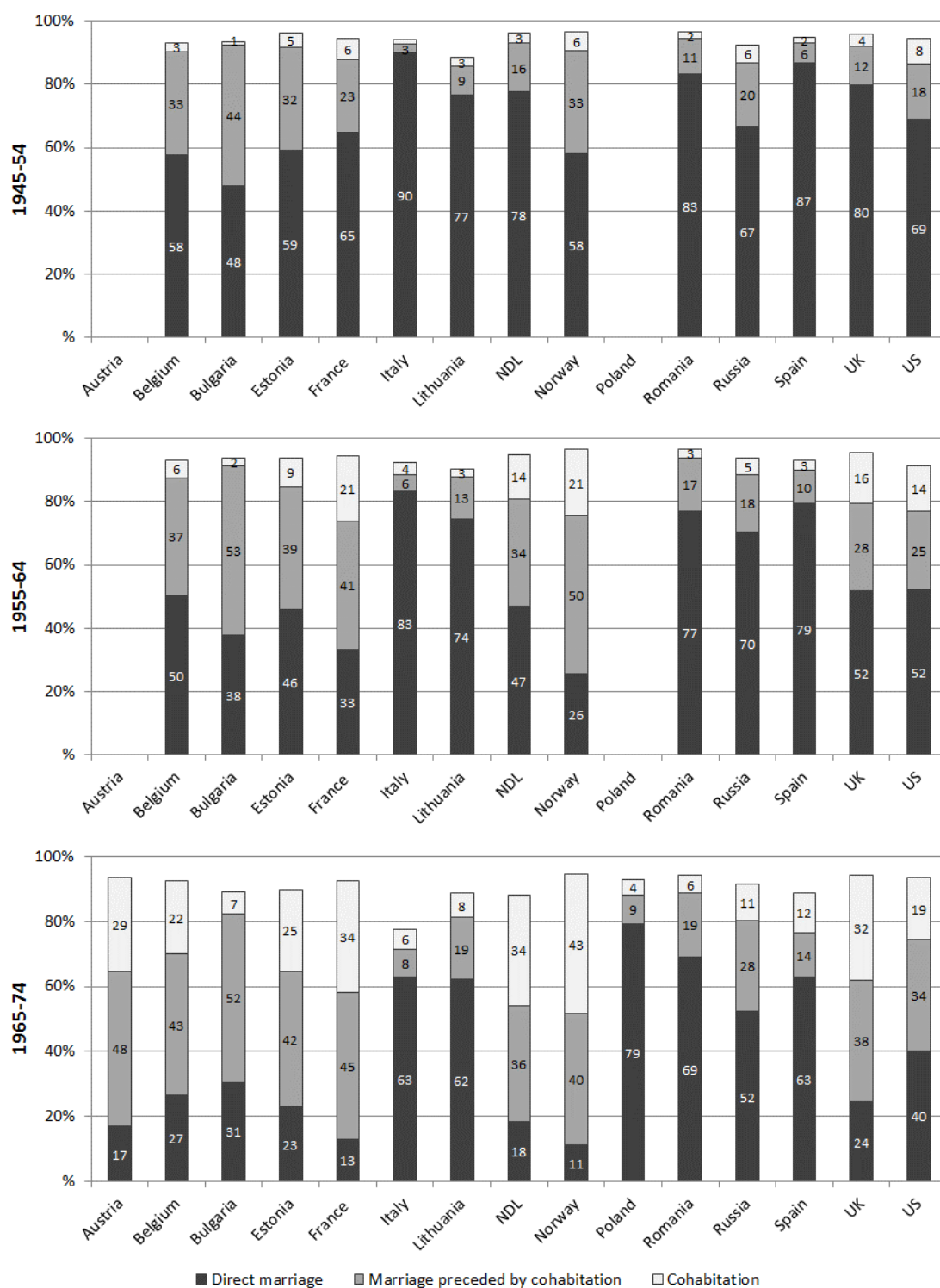
Figure III.1 shows a general high percentage of women who have ever had a partner across birth cohorts; in Europe and in the United States 9 out of 10 women entered the first union by the interview date.¹⁶ The high level of partnership formation is observed in all birth cohorts; however, the cross-national variation in the type of first partnership has remarkably increased from the oldest to the youngest cohort. Before describing the changes in first union type across birth cohorts, note that women whose first union has not been transformed into marriage by the time of the survey may either be still cohabiting at the time of the survey or dissolved their cohabiting first union before survey.

In Europe and in the United States, the vast majority of women born in 1945-54 (aged 50 to 60 at the time of the survey) entered marital first unions by the time of the interview. In all countries except Bulgaria, most women married their first partner directly; the percentage of all women who had a direct marriage ranges from slightly under 60% in Estonia and Norway to 90% in Italy. Cohabiting unions are mostly transformed into marriage. However, the prevalence of marriages preceded by cohabitation varies considerably across

¹⁵ Our results refer to population of women who experienced separation and possibly formed a new union. Women whose first partner died are excluded from the analyses on repartnering.

¹⁶ A slightly lower level of first union formation in Italy in the youngest cohort is due to the fact, that Italian women form first partnership at higher age than women in other European countries. As women born in 1965-74 were 30-40 years old at the time of the survey, the proportion of women entering first union, may still increase in the future.

Figure III.1: Percentage of women who experience first union formation, by union type and birth cohort



Note: Weights have been applied if available.

countries; less than 10% of all women in Southern Europe to over one third in Belgium, Bulgaria, Estonia and Norway experienced premarital cohabitation. On the other hand, the percentage of women in cohabiting first unions which have not been transformed into marriage (by the time of the survey) is almost negligible in most European countries and relatively low (8%) in the US.

For women born in 1955-64 (aged 40 to 50 at the time of the survey), the type of first union becomes increasingly diverse across countries. Marriage remains the dominant form of a first partnership; among all women 80-90% form a marital first union by the time of the interview. However, cross-national differences in the entry into marriage, i.e. whether it was a direct marriage or marriage preceded by cohabitation, become more pronounced. Direct marriage is more prevalent in Southern and most Eastern European countries (except Bulgaria and Estonia) than in the US and in Western and Northern Europe. For example, in Italy, Spain and Romania, among all women, 70-83% experience direct marriage, whereas at the other end of scale, in Norway, only 1 out of 4 women does so. At the same time, increasing cross-national differences are observed in the level of pre-marital cohabitation which ranges from less than 10% in Italy and Spain to over 50% in Bulgaria and Norway. In addition, countries differ considerably in the percentage of women who experienced cohabitation in the first partnership without marrying their partner. In Southern and most Eastern European countries (except Estonia) less than 5% of all women formed a non-marital first union which has not been transformed into marriage by the time of the survey. For Western and Northern European countries and the US, the corresponding figures are substantially higher reaching 21% in Norway and France.

Although, in the youngest birth cohort 1965-74 (women aged 30 to 40 at the time of the survey), the vast majority of all women enter a marital union by the time of the interview, the prevalence of marriage in first partnership varies substantially across countries (Figure III.1). The percentage of women who reported to enter a marital union is considerably high in Southern¹⁷ and

¹⁷ Although in Italy, only 77% of all women born in 1965-74 have reported to enter first union by the time of the interview, 71% have experienced formation of marital union, i.e. marriages constitutes 92% of all unions.

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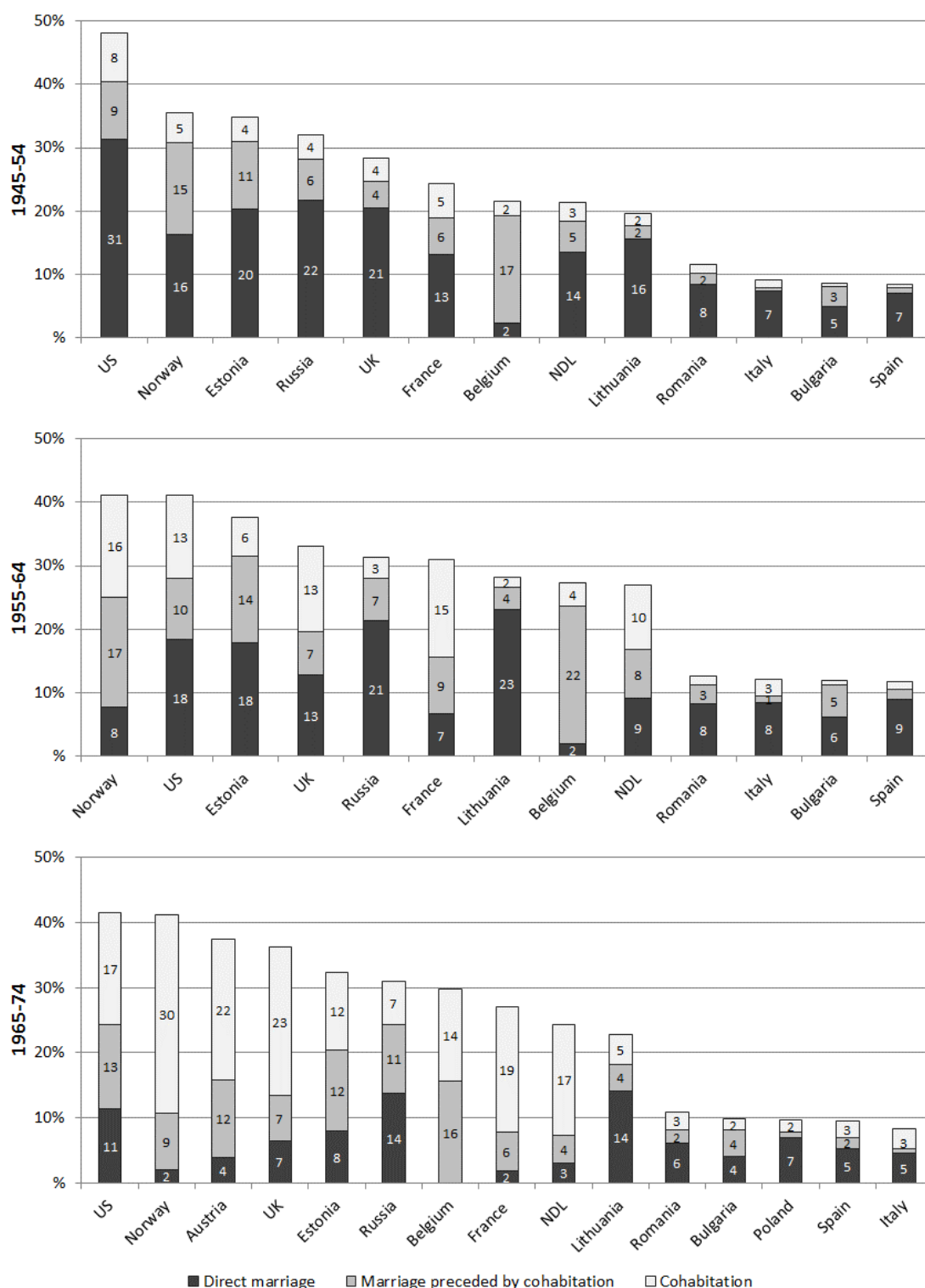
most Eastern European countries (except Estonia), i.e. 70-90% of all women formed a marital union by the interview. In contrast, the marital first unions are somewhat less prevalent in Northern and Western European countries. For example, in Norway every second woman, and in France, the Netherlands, and the UK, 6 out of 10 women have reported to marry their first partner by the time of the survey. In the US, 74% of all women entered a marital first union by the time of the survey.

Furthermore, countries differ in the percentage of women born in 1965-74 who enter marital first union directly and those who experience cohabitation in the first partnership. Again, direct marriages are more frequent in Southern and most Eastern European countries (except Bulgaria and Estonia), where 50-80% of all women have a direct marriage by the time of the interview. On the other hand, we observe a large diversity in cohabitation experience in first partnership among the youngest birth cohort - either as a prelude to marriage or as a union which is not transformed into marriage. 50-80% of all women in Western Europe, Bulgaria, Estonia and the US experience cohabitation in their first partnership by the time of the survey. Among these countries, between 34% in the US, to 52% of all women in Bulgaria transition their unions from cohabitation into marriage (by the time of the survey). In comparison, in Italy and Spain and the remaining Eastern European countries, the percentage of all women who cohabit with their first partner varies from 13% in Poland to 40% in Russia. Correspondingly, between 9% in Poland and 28% of all women in Russia enter marriage after a period of non-marital co-residence. Finally, the percentage of all women born in 1965-74 who experience cohabitation without transition into marriage by the time of the survey, is considerably higher in Western Europe than in the most Eastern and Southern European countries, but these women may end up marrying later.

Percentage of women who experience first union dissolution, by type of first union and birth cohort

Having examined patterns of first union formation, we now turn to cross-national differences in first union dissolution. First union dissolution is a necessary condition for repartnering. Figure III.2 presents the percentage of women who have experienced first partnership dissolution in Europe and in the

Figure III.2: Percentage of women who experience first union dissolution, by type of first union and birth cohort



Note: Weights have been applied if available.

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United States by birth cohort. Within-cohort comparisons reveal a strong variation in the level and the type of dissolved first unions among studied countries.

The highest percentage of all women born in 1945-54 (aged 50 to 60 at the time of the survey) who experienced first union dissolution is observed in the US, where almost half of the female population experienced first union dissolution by the time of the survey. This figure is striking given that for the oldest birth cohort, the US sample is substantially younger at the time of the interview than women in European surveys. Corresponding figures for European countries are somewhat lower and vary considerably across the continent from less than 10% in Italy, Spain, Bulgaria and Romania to around 35% in Norway, Estonia and Russia. Among women whose first union dissolved, the vast majority were previously married; the percentage of dissolved marriages among all dissolved unions ranges from 78% in France to 94% in Spain. At the population level, the percentage of all women who experienced divorce by the time of the interview ranges from around 8% in Southern Europe and Bulgaria to around 30% in Norway, Estonia and Russia and 40% in the US. In all countries, with the exception of Belgium, most divorced women had entered their marital first unions directly (i.e. without co-residing with their first partner). In Belgium, by contrast, only 1 out of 10 of divorced women married directly. Since in the oldest birth cohort cohabitation is mainly premarital, the percentage of all women who experienced a non-marital first union dissolution has not exceeded 5% in Europe and accounts for 8% in the US.

The cross-national differences in the percentage of women who experience first union dissolution are somewhat less pronounced among women born in 1955-64 (aged 40 to 50 at the time of the survey). Figure III.2 indicates that the US no longer differs from the European countries as the level of union dissolution is comparable with those in Norway and Estonia where around 40% of all women experienced first union dissolution by the time of the survey. However, since American women born in 1955-64 are observed only until 1995, in which the NSFG was conducted, these results are likely to underestimate the level of first union dissolution in the US. In the other Western European countries (Austria, Belgium, France, the Netherlands and the UK), but also in Russia and Lithuania, the percentage of women separated from

the first partner among all women is rather moderate and ranges from 27% to 33%. First unions seem much more stable in Mediterranean countries, as well as in Romania and Bulgaria where among all women less than 12% experienced first union dissolution by the time of the survey. Looking at first union type, women born in 1955-64 who separated from their first partner were predominantly married. Among all dissolved union, the percentage of disrupted marriages varies from 51% in France to 95% in Bulgaria and Lithuania. The percentage of all women who experienced first marital union dissolution by the time of the survey ranges from around 10-12% in Southern Europe and in Bulgaria and Romania, to around 28-30% in Estonia, Russia and the US.

A substantial proportion of women born in 1955-64 who experienced union dissolution had cohabited prior to marriage (up to 17% of all women in Norway). However, in most countries (except France and Norway), the majority of women whose marital first union ended in divorce had married directly. In addition, with the rise in cohabitation in the 1955-64 birth cohorts, in some countries, the proportion of women whose cohabiting first unions ended in separation without being transformed into marriage has also increased. For example, in Norway, France, the UK and the US, 13-16% of all women had entered a cohabiting first union which dissolved by the time of the survey. In contrast, this percentage is marginal in Southern Europe and in the vast majority of Eastern European countries (fewer than 3% of all women). Interestingly, in all countries, the percentage of women who separated from their non-marital partner has not exceeded the percentage of women who experienced a marital union dissolution.

Before looking at the birth cohort 1965-74, it is important to keep in mind that these women are comparably young, aged 30-40 at the time of the survey, and thus have been observed only for a relatively short period of time. While right censoring is less of a problem for the older cohorts (women were 40-60 years old when interviewed), it has to be taken into account when interpreting the results for the youngest cohort. First, given the increase in the age at first marriage (Sobotka and Toulemon 2008), some women might have not been captured in our analyses because they have not had yet enough time to enter a marital union. Secondly, the differences in the age at union dissolution among previously married and cohabiting women must be taken

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into account. Because age at first marriage is often higher and marital unions are usually more stable than cohabitation, we have not yet observed all divorces that women in this cohort may still experience (some marriages may be intact at the time of the interview but are likely to dissolve in the future). Hence, for the youngest birth cohort, it must be particularly stressed that the following findings refer to events that occurred by the time of the survey and may not represent the final levels of first union dissolution and repartnering.

In the 1965-74 birth cohort the cross-national variation in the prevalence of women who experienced first union dissolution has slightly increased; however, the order of countries does not differ dramatically from that found in the older cohorts. Italy, Spain, Romania, Bulgaria, and also Poland record the lowest percentage (around 10%) and the US and Norway, with 41%, the highest percentage of women who experienced first union dissolution by the time of the survey. In the remaining Western European countries but also in Estonia, Russia and Lithuania, the percentage of all women separated from their first partner varies between 23% and 33%.

A great heterogeneity has been observed in the type of dissolved first unions across countries, which mainly reflects changes in first partnership behaviour among women born in 1965-74. As cohabitation at first union has increased, in most countries (except Italy, Lithuania, Poland and Romania), the majority of women re-entering the partner market had either cohabited prior to the dissolved marriage or separated from the non-marital first partner. In fact in a few countries, the percentage of dissolved cohabiting first unions which had not been transformed into marriage exceeded the percentage of dissolved marital first unions. For instance, in Austria, France, the Netherlands, Norway and the UK between 60-70% of all dissolved first unions were cohabitations. At the population level, 30% of all women in Norway and between 17-23% in Austria, France, the Netherlands, the UK and the US experienced a non-marital first union dissolution by the time of the survey. At the other end of the scale, in Southern and in most Eastern European countries (except Estonia and Russia), where cohabitation is less prevalent, fewer than 5% of all women became at risk of repartnering after separation from a cohabiting first partner.

On the other hand, marital first union dissolutions are particularly common in Southern and Eastern European countries; between 63% in Italy and

Estonia up to 80% of all dissolved unions in Bulgaria, Lithuania, Poland and Russia were marriages. Corresponding with the country-specific prevalence of first union dissolution, the highest percentage of women who experienced marital breakdown among all women by the time of the survey is found in Russia (25%), the US (24%), Estonia (20%) and Lithuania (18%) and the lowest in Bulgaria, Italy, Poland, Romania and Spain (less than 8%). A very small percentage of women who divorced their married first partner, among all women, have also been observed in the Netherlands (7%), France (8%) and Norway (11%). In these countries, however, the patterns of first union formation and dissolution differ substantially from those in Southern and Eastern Europe as marital first unions are generally less common, and hence their dissolution accounts for less than one third of all dissolved unions.

In addition, we find cross-national differences in the entry type into the dissolved marital first union, i.e. direct marriage or marriage preceded by cohabitation. In the US and Western Europe most women who experienced marital first union dissolution had cohabited with their partner prior to marriage. In contrast, in Southern and Eastern Europe, women who experienced divorce had mainly married directly, which reflects the patterns of first union formation in these regions. Among all women, the percentage of those whose marital first union was preceded by cohabitation and ended in divorce ranges from less than 1% in Italy and Poland to around 13% in Estonia and the US. Furthermore, the percentage of women who experienced divorce from their directly married first partner among all women, by the time of the survey, varies between 2% in Norway and the Netherlands, to 14% in Russia and Lithuania.

As mentioned earlier, it is important to recognize in mind that women born in 1965-74 have a much shorter exposure time to union dissolution than women born in 1945-54. Nevertheless, despite the differences in the age at the interview, we observe similar levels of first union dissolution in Europe and the US across birth cohorts. This may be related to the increasing deinstitutionalisation of marriage which implies changes in first partnerships behaviour. On the one hand, rising prevalence of more fragile cohabiting unions means that more women may be exposed to repartnering. On the other hand, postponement of first marriage implies that some women may not have

enough time to dissolve their marital first union but may do it in the future. This would suggest that our sample is selective of women with an elevated divorce risk. In addition, it is interesting that despite the age differences at the time of the surveys, the cross-national variation in the level of first union dissolution has not dramatically changed across birth cohorts. Furthermore, the order of the countries regarding the percentage of women who experienced first union dissolution among all women has remained relatively stable from the oldest to the youngest birth cohort.

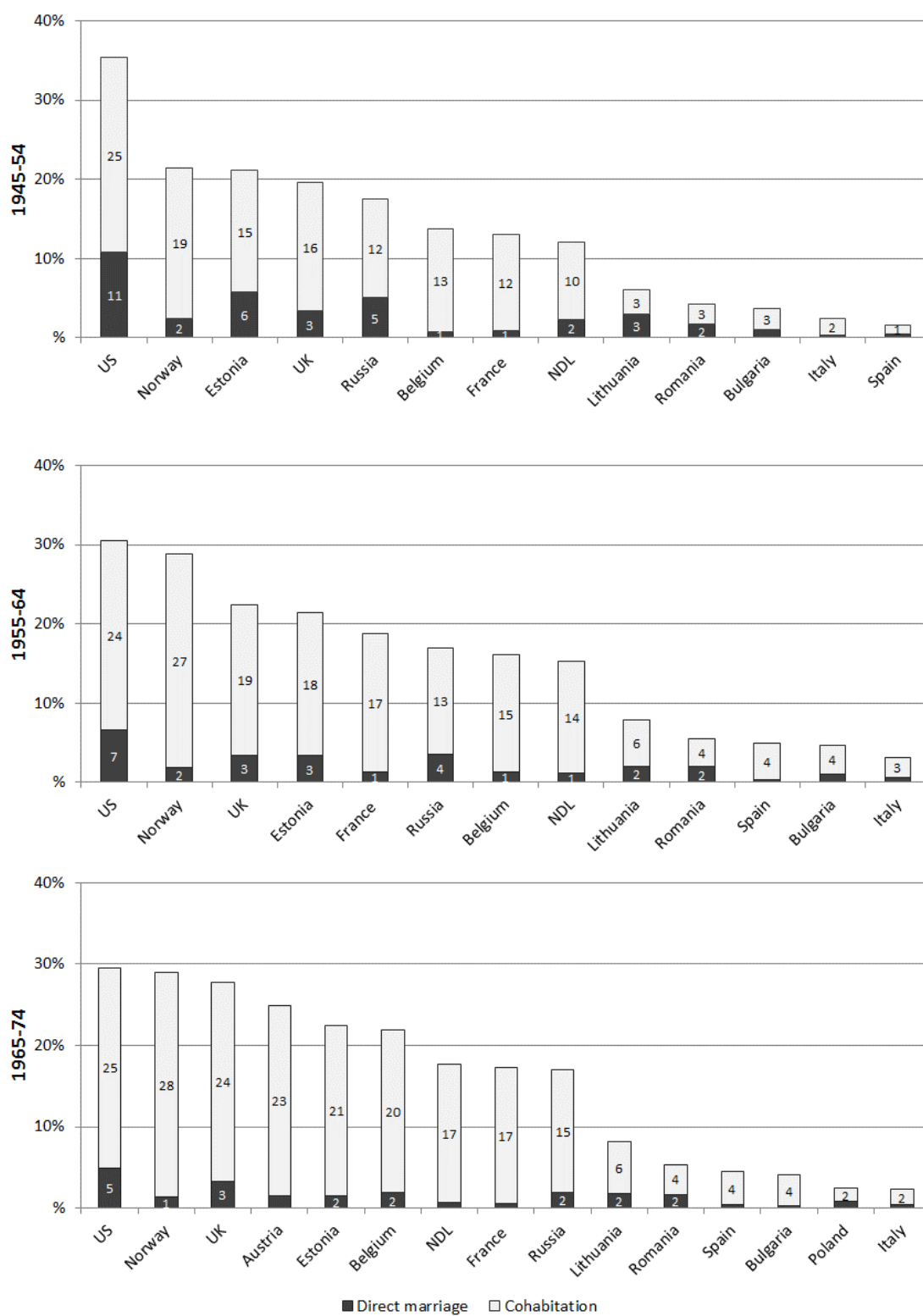
III.4.2 Repartnering

Percentage of all women who ever repartner, by type of second union at the beginning and by birth cohort

Figure III.3 presents the percentage of women who have experienced second union formation by the type of the union at its start in Europe and in the US. Although this analysis is not conditional on having experienced union dissolution, it is important because it shows how common repartnering is in Western societies. We find considerable cross-national differences in repartnering levels which mainly reflect the variation in the prevalence of first union dissolution. While in some countries, for instance in the US and Norway, second union formation is very common, in the others, primarily in Southern and most Eastern European countries, repartnering is relatively rare.

Corresponding to the first union dissolution patterns, cross-national differences in repartnering levels are especially pronounced in the oldest 1945-54 birth cohort. First, the difference between the country with the lowest and the highest level of repartnering is striking. Fewer than 3% of all women in the Mediterranean countries compared to 36% of all American women have experienced second union formation by the time of the survey (aged 50 to 60). Second, as has been observed in Cherlin's "The marriage-go-round" (2009), the US differs greatly from European countries, where the highest percentage of women who have ever repartnered - observed in Norway, Estonia and the UK, only slightly exceeds 20%. These differences are likely to be even larger if we consider that American women in the oldest birth cohorts were substantially younger at the time of the survey than women in Europe. However, the differences between countries within birth cohort have become smaller with

Figure III.3: Percentage of all women who ever repartner, by type of second union at the beginning and birth cohort



Note: Weights have been applied if available.

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successive birth cohorts; particularly in the birth cohort 1965-74 (aged 30-40 at the time of the survey), the US does not stand out from European countries anymore. In general for the youngest birth cohort, the percentage of those who have experienced second union by the time of the survey ranges from 2-8% in Southern and most Eastern European countries (except Estonia and Russia), to around 30% in the US, Norway and the UK.

Although the direct comparison of repartnering levels across female birth cohorts is impossible due to the differences in women's age at the time of the survey, the results demonstrate a substantial increase in the prevalence of repartnering among more recent birth cohorts. For instance in France, 18% of women born in 1965-74 (aged 30-40 at interview) repartnered by the time of the survey. The corresponding figure for women in the oldest birth cohort 1945-54 (aged 50-60 at interview) was 13%. Note, however, that cross-national differences have remained widely unchanged, particularly the order of countries from the lowest to the highest level of repartnering.

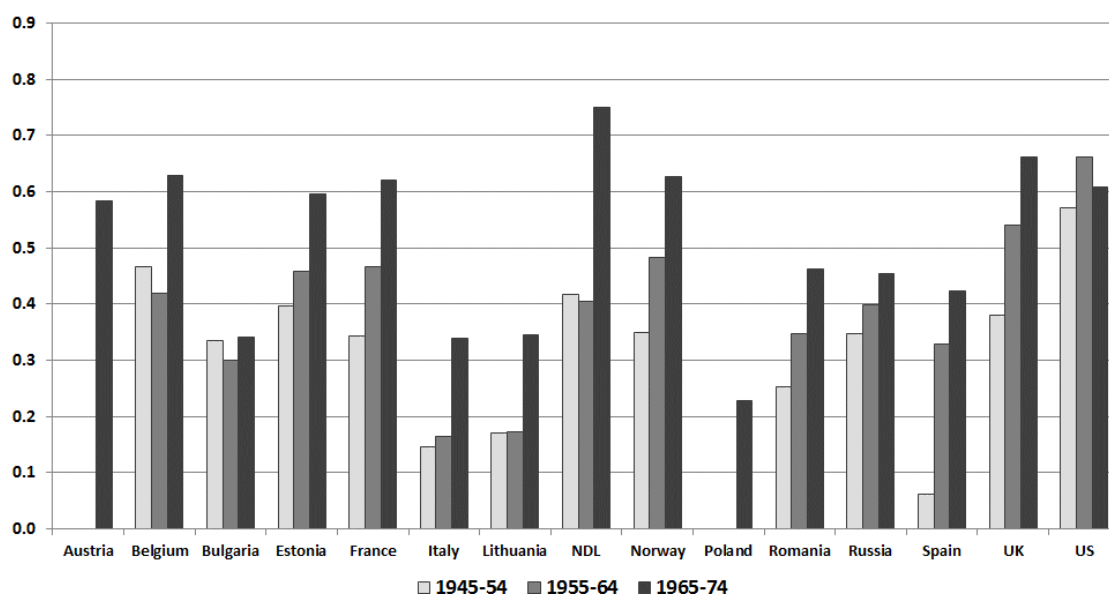
Interestingly, despite cross-national differences in first union formation and dissolution patterns and in the prevalence of repartnering, the vast majority of second unions in Europe and the US start with cohabitation, while direct marriages are becoming less common across birth cohorts. In the 1945-54 birth cohort, the percentage of direct marriages in repartnering among all second unions ranges from 7% in France to 41% in Romania and 49% in Lithuania. These figures are striking given that in the oldest cohort direct marriage is the most prevalent form of first partnership. At the population level, 11% of all women in the US and fewer than 6% of all women in Europe have experienced repartnering through direct marriage. In comparison, in the youngest 1965-74 birth cohort, among all second unions formed by the time of the survey, fewer than 5% in France, the Netherlands and Norway were direct marriages. The highest percentage of direct marriages among all second unions is observed in Lithuania and Romania, 23% and 32% respectively. At the population level, 5% in the US and fewer than 3% of all women in Europe repartnered by marrying their second partners directly by the time of the survey.

Cumulative proportions of repartnering within 5 and 10 years after union dissolution, by cohort

We now focus on the pace of repartnering in Western societies and investigate how it has changed across birth cohorts. For this purpose, cumulative probabilities of second union formation within 5 and 10 years after first union dissolution are calculated (See Appendix A 1 for description of the sample by birth cohort). Figure III.4 presents the cumulative probabilities of women who repartner within 5 years after first union dissolution. The first striking finding is a remarkable cross-national variation in the proportion of repartnered women within 5 years after first union dissolution. In some countries, the proportion of repartnered women is very high, for instance in Austria, Estonia, France, Norway, the UK and the US around two third and in the Netherlands even 75% of women born 1965-74 enter a second union within 5 years after re-entering the partner market. By contrast, in the Southern and most Eastern European countries, forming a second union is less common; in birth cohort 1965-74, one third of women in Italy, Bulgaria and Lithuania, and 4 out of 10 in Spain, Russia and Romania start a co-residential second partnership within 5 years after first union dissolution. The lowest percentage of repartnering is recorded in Poland where only 23% women enter a new partnership within 5 years after first union dissolution.

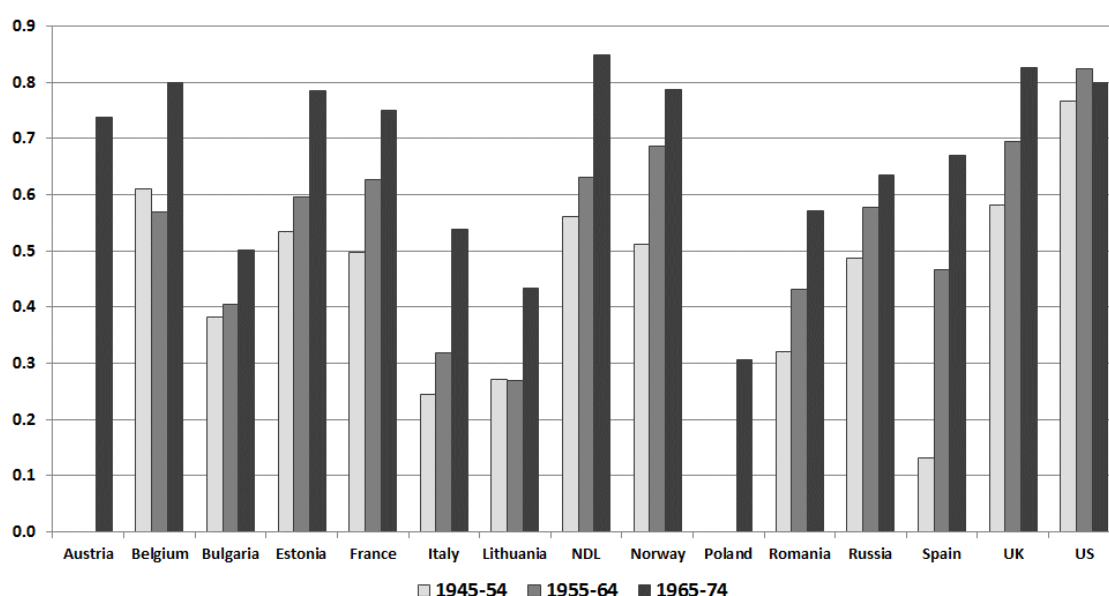
The second noteworthy finding is an almost universal increase in the proportion of women who enter a second union 5 years after union dissolution across birth cohorts; in the vast majority of countries (except the US) the proportion of repartnered women born in the youngest cohort is much higher than in older birth cohorts. In France, Italy, Lithuania, the Netherlands, Norway, Romania and the UK, the percentage of women who repartnered within 5 years has somewhat doubled from the earliest to the youngest birth cohort. In Spain, the percentage of women who repartnered within 5 years from first union dissolution increased by a factor 7 from only 6% among women born in 1945-54 to 42% for those born in 1965-74. In other countries the increase was less dramatic (Estonia, Russia). The US is the only country where the proportion of women born in the youngest cohort is lower than that of women born 1955-64. However, this result may be, at least partially, related to the fact that women born in 1965-74 come from 2007 National Survey of Family Growth (NSFG) as

Figure III.4: Cumulative proportions of repartnering 5 years after union dissolution by birth cohort



Note: Weights have been applied if available.

Figure III.5: Cumulative proportions of repartnering 10 years after union dissolution by birth cohort



Note: Weights have been applied if available.

oppose to women born in 1945-64 who were selected from the 1995 NSFG. Furthermore, it may be due to the fact that divorce rates have recently levelled-off in the US (Goldstein 1999, Raley and Bumpass 2003), and hence women

who experienced first union dissolution may constitute a more selective group than divorced women in the older birth cohorts. However, this explanation is speculative and needs to be examined in more detail in further research.

In most countries, except Spain, the rise in repartnering has occurred from 1955-64 to 1965-74 birth cohorts. Interesting, despite the increase in a proportion of women who repartner within 5 years after first union dissolution, the ranking of the countries has remained relatively unchanged across cohorts. In other words, women in Southern and most Eastern European countries repartner to a lesser extent and women in the US, the UK and Norway to the greater extent in all three birth cohorts. Note, that the differences between cohorts for each country are statistically significant at 5% level (log-rank test).

The patterns of repartnering within 10 years after first union dissolution are very similar to those after 5 years (Figure III.5). Again, women born in the more recent cohorts repartner to a greater extent than their older counterparts whose first union dissolved. Up to 80% of separated women in Belgium, Estonia, France, the Netherlands, Norway, the UK, and the US find eventually a new partner. On the other end of the scale is Poland where only one third of women born in 1965-74 repartner within 10 years after first union dissolution. In all countries, repartnering has become significantly more frequent across cohorts. In addition, the order of countries with the lowest to the highest cumulative probabilities of repartnering has not altered much from 1945-54 to 1965-74 birth cohorts. The only difference is that in comparison to the oldest birth cohort, Mediterranean women born in 1965-74 enter a second union more often than their Eastern European counterparts. This is particularly true for Spanish women, whose repartnering behaviour in the youngest cohort, 10 years after first union dissolution, resembles increasingly the one in the Western European countries.¹⁸

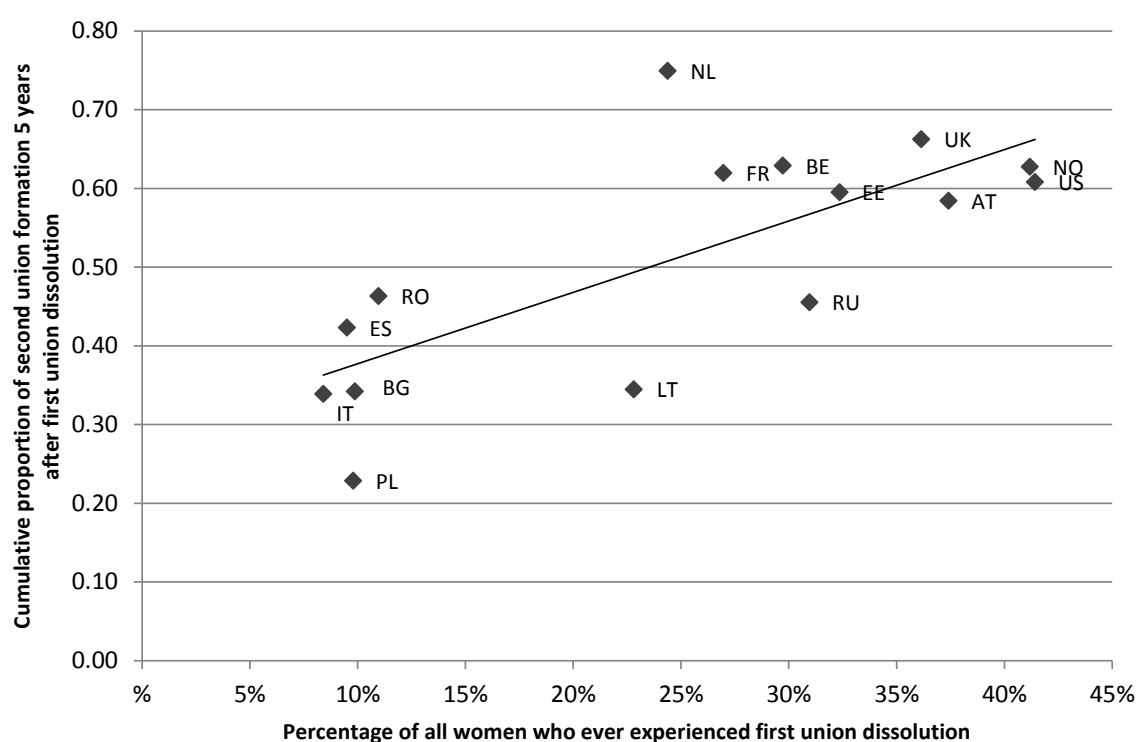
Further analysis reveals a strong positive association between the prevalence of first union dissolution at the population level and the pace of

¹⁸ Since the Spanish data set does not contain any information on the date of divorce, we do not know how much the date of separation differs from the date of legal divorce. Given that divorce in Spain may be legally obtain after 5 years of separation, our estimates of the repartnering within 10 years after first union dissolution may be more precise than that for 5 years.

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repartnering in Western societies (Figure III.6), i.e. in countries where many women dissolve their first unions, the proportion of repartnered women within 5 years after first union dissolution is also high. However, some differences in the pace of repartnering among countries with similar levels of first union dissolution are observed. For instance, although Lithuania and the Netherlands report similar percentages of women who experienced separation from first partners at the population level, the Dutch women repartner at much faster pace than their Lithuanian counterparts.

Figure III.6: Relationship between the level of union dissolution and the pace of repartnering, birth cohort 1965-74.



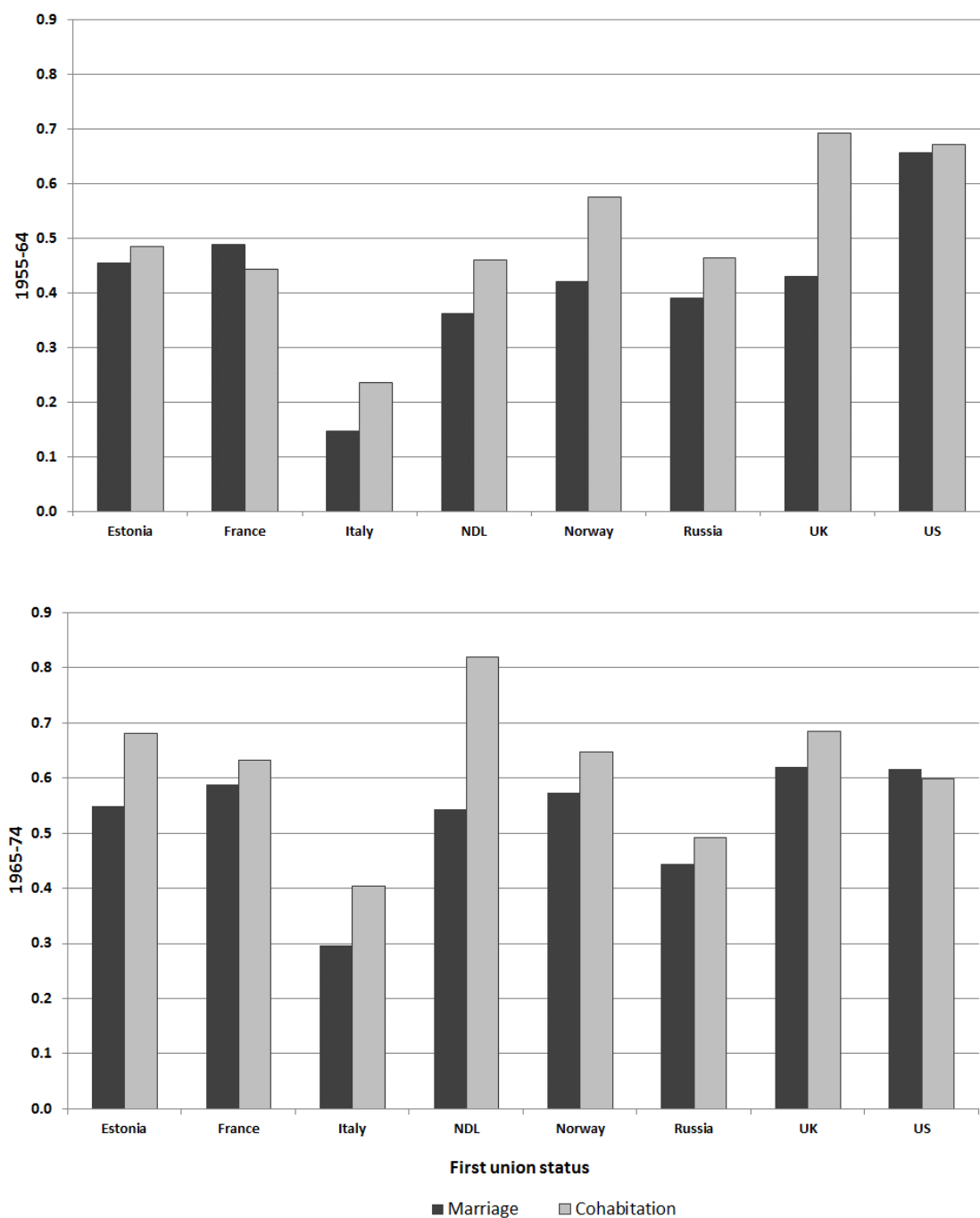
Note: Correlation coefficient=0.69. Weights have been applied if available.

The rise in repartnering among birth cohorts, particularly the high level of repartnering among women born in 1965-74, is remarkable given that these women are comparably young and may not have yet had enough time to repartner. In fact, changes in repartnering behaviour are very likely to reflect some changes in first union formation. In many countries, women in more recent birth cohorts opt more often for cohabiting first unions which tend to be less stable than marriage. Consequently, they may be younger at union dissolution than their older counterparts born in 1945-54 and in 1955-64, for

whom first unions were mainly marital, and divorce may have been still more socially stigmatized or legally restricted. Cohabiting women who experienced union dissolution are likely to differ from their previously married counterparts in their individual characteristics (age and fertility), attitudes towards family as well as in their incentives, opportunities and constraints to repartner. We address this issue in further analysis where we examine the probability to repartner among previously married (including those women whose first marriage was preceded by cohabitation) and previously cohabiting women exposed to repartnering. However, due to the small number of cohabiting women who experienced first union dissolution in the birth oldest cohort, our analysis focuses only on women in countries for which we have information on birth cohorts 1955-64 and 1965-74 (see Appendix A 2 for description of the sample).

Figure III.7 shows proportions of women who repartner within 5 years after first union dissolution by first union type across birth cohorts. Cross-national variation in the level of second union formation among previously married and cohabiting women whose first unions dissolved reflects the total probability of repartnering in a country (Figure III.4); it is the highest in Norway, the Netherlands, the UK and the US, and the lowest in Italy. In most countries, except France in the 1955-64 birth cohort, previously cohabiting women repartner to a greater extent than women married at first union. In France in the 1955-64 birth cohort the opposite has been found: 49% of previously married women compared to 44% of women who separated from their non-marital first partner have entered a second union within 5 years. We confirm, therefore, our expectations that the differences between women in cohabitating and marital first unions may make divorcees repartner slower than previously cohabiting women.

Figure III.7: Proportion of women who have ever repartnered within 5 years after union dissolution by birth cohort and first union type



Note: Weights have been applied if available.

III.6 Summary

This Chapter provides important insights into women's repartnering dynamics across three birth cohorts in Western societies. Two sets of analyses were conducted: (i) a general description of the prevalence of repartnering at the population level and (ii) a more analytical examination of the pace of repartnering among separated women. However, before investigating repartnering dynamics, general trends in first partnership formation and dissolution at the population level across Europe and in the US were presented in order to improve our understanding of the family demographic context in which repartnering occurs. In addition, changes by first union type were examined as contentions whether first union was cohabitation or marriage may have important implications for the prevalence and the pace of second union formation.

First, the results show that although the levels of first partnership formation are comparably high in all countries across female birth cohorts (9 out of 10 women form a first union), cross-national differences in first union type have considerably increased among more recent birth cohort. While in Southern and most Eastern European countries the vast majority of women born in 1965-74 (aged 30-40 at the time of interview) entered a direct first marriage by the time of the survey, in Western and Northern European countries, most women have experienced cohabitation in their first partnerships.

Second, the findings demonstrate large cross-national differences in the prevalence and the type of the dissolved first union across birth cohorts. Whereas in some countries a significant percentage of the female population experience first union dissolution, in other countries only a small fraction of women were exposed to repartnering at the population level. Looking only at the youngest birth cohort 1965-74, the percentage of women who ever experienced union dissolution, by the time of the survey, ranges from less than 10% in Southern and most Eastern European countries to over 40% in Norway and the US. These results are largely in line with previous comparative studies on union instability across Western societies (Andersson 2003). Interestingly, the order of the countries remains relatively stable in all birth cohorts

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indicating a persistence of cross-national differences in partnership patterns. However, parallel to changes in first partnership type, the population at risk of repartnering has become increasingly diverse in terms of the type of the dissolved first union across birth cohorts. Women born in 1945-54 whose first unions ended in separation were mainly directly married. In contrast, in the most recent birth cohorts, in many countries, the majority of women exposed to repartnering had some cohabitation experience in first unions, either prior to marriage or without converting their first unions to marriage.

Third, we identify cross-national differences in the prevalence of repartnering at the population level in Europe and the United States. Although the direct comparison of repartnering levels across female birth cohorts is not possible due to the differences in women's age at the interview, we provide evidence that repartnering has become more common across birth cohorts. For instance, women born in 1965-74 (aged 30-40 at interview) show similar, often even higher, levels of repartnering at the time of the survey to that of women in the oldest birth cohort 1945-54 (aged 50-60 at interview). Given that women born in 1965-74 are still relatively young, the repartnering levels for this birth cohort are likely to increase in the future. Corresponding to the prevalence of first union dissolution at the population levels, we show large cross-national differences in the level of repartnering. The percentage of women who repartnered by the time of the survey, is much higher in the US and Northern and Western Europe (up to 30% of female born in 1965-74) than in Southern and most Eastern European countries (less than 10% of females born in 1965-74). The results match the expectations on the country order and largely corroborate the findings from a previous study by Prskawetz et al. (2003) reporting similar order of the countries for women born in 1952-59 who entered second unions by age 35.

Fourth, despite the great diversity in the population at risk of repartnering in terms of the level of dissolved unions and the type of first partnership, we find little variation in the type of second unions across countries. In line with our expectations, in all countries within each birth cohort the vast majority of second unions begin with cohabitation. We identify these same repartnering patterns even in the regions with very strong pro marriage norms (Mediterranean and most Eastern European countries). The findings, therefore, support some previous evidence coming from a few

European countries which has shown that higher order unions predominantly start with cohabitation (e.g. Sweden and Norway: Blanc 1987, UK: Kiernan and Estaugh 1993, the Netherlands: Poortman 2007). As women who experienced first union dissolution increasingly opt for a less institutionalised type of second partnership, this result may suggest that separated women may become more careful when they form a new union (Furstenberg and Spanier 1984, Poortman 2007).

Nevertheless, we find strong, persisting differences in the pace of repartnering, measured by the proportion of women who repartner within 5 years after first union dissolution, in Western societies across birth cohorts. For instance, while in the Netherlands, the UK and the US women repartner to a greater extent shortly after re-entering the partner market (65-75% in birth cohort 1965-74), in countries like Bulgaria, Italy, Lithuania and Poland less than 35% of women repartner within 5 years after separation from the first partner. However, our results show an almost universal increase in the proportion of separated women who repartner across birth cohorts.

In addition, this Chapter documents a strong positive association between the pace of repartnering and the prevalence of first union dissolution at the population level in birth cohort 1965-74. In countries where many women experience separation from their first partner, the proportion of separated women who repartner within 5 years after union dissolution is also very high. This relationship may be related to changes in first partnership behaviour. The diffusion of less stable cohabiting unions implies that the population at risk of repartnering may increasingly consist of women who separated from a non-marital first partner. In fact, the countries with the highest prevalence of women who experienced first union dissolution at the population level, are also those with the highest proportion of women with some cohabitation experience in first partnerships. Further analyses examining the percentage of women who repartner within five years after separation by the type of the dissolved first union reveals that in most countries previous cohabitators repartner quicker than divorcees. Therefore, based on life table estimates our expectations are confirmed that women cohabiting at first union

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may differ in their repartnering behaviour from women whose first union was marriage.

However, one must acknowledge that the fast pace of repartnering in the more recent birth cohorts may also be attributed to selection effects. Women born in 1965-74 are still very young at the time of the survey and hence if they are at risk of repartnering they may be selective of those with elevated risks of union dissolution, for instance, young age at first union formation (Berrington and Diamond 1999, Lyngstad and Jalovaara 2010, Teachman 2002). Therefore, we do not observe women who may dissolve their partnerships in the future, i.e. women with more stable unions and those who formed first partnerships at higher ages. The last argument is particularly true for marriages which have been increasingly postponed among women born 1965-74¹⁹ and would have two implications for the presented results. First, we do not know whether the described pace of repartnering will hold in the future. Second, we may expect further increases in repartnering levels in the younger birth cohort as women with more stable unions and those who formed their first partnership at higher ages may also separate from the first partner and repartner later in life.

Taken together, this Chapter improves our knowledge of the contemporary state of family demographic changes in Europe and the US. The comparative approach of these analyses allows us to examine first and second partnership behaviour in different socio-economic and cultural contexts, and hence contributes to the debate on longstanding differences in family patterns in Western societies. Finally, by examining repartnering behaviour by first union type and by distinguishing between cohabiting and married second unions, this Chapter quantifies the changes related to the process of the deinstitutionalisation of marriage.

¹⁹ In many countries women born in 1965-74 started forming their first partnerships in the time period characterized by increasing mean age at first marriage (Sobotka and Toulemon 2008).

IV. The role of individual demographic characteristics in explaining cross-national differences in women's repartnering in Europe²⁰

Summary

Cross-national variations in the diffusion of divorce and cohabitation have resulted in profound differences in the level and the pace of repartnering within Europe. This paper examines the extent to which cross-national differences in repartnering after separation from a first partner are explained by differences in the micro-level demographic characteristics identified in the literature as key determinants of repartnering, i.e. (i) age patterns of first union dissolution, (ii) first union type and (iii) the presence of children. Our data comes from the Harmonized Histories which contains cleaned and standardised retrospective partnership histories collected from women in 14 European countries. We apply discrete-time hazard models for each country separately and for pooled cross-national data. We find considerable differences across Europe in the demographic characteristics of the population at risk of repartnering. Furthermore, while age at union dissolution and parenthood status have strong negative effects on repartnering in most European countries, previous union type does not affect women's repartnering chances. Our results indicate that variation in micro-level demographic characteristics does not fully explain the cross-national differences in repartnering behaviour. We conclude that more research on macro-level factors explaining variation in repartnering between countries is needed.

²⁰ This Chapter has been presented at: (i) the European Population Conference, Budapest, Hungary, 25-28 June 2014, (ii) the Workshop on Family dynamics, fertility choices, and family policy, Oslo, Norway, 9-10 October 2014, and (iii) the IUSSP International Seminar on Union Breakdown and Repartnering around the World, Montreal, Canada, 4-6 May 2015. As conference papers, this Chapter has been co-authored by Dr Brienna Perelli-Harris and Prof. Ann Berrington. The idea of the paper, all calculations and interpretations come from the author of the thesis. The co-authors contributed by providing comments and feedback on previous versions of the Chapter.

IV.1 Introduction

Since the 1960s divorce rates have risen in nearly every European country and in the United States (Goldstein 1999, Kalmijn et al. 2007, Raley and Bumpass 2003, Sobotka and Toulemon 2008, Spijker 2012). Consequently, individuals have been increasingly exposed to repartnering as a result of marital dissolution. In addition, many countries have experienced an increase in cohabiting unions, which are often a testing ground for relationships that may not last as long as marriages or be transformed into marriages (Kennedy and Bumpass 2008, Kiernan 2004, Perelli-Harris et al. 2012). The increased instability of partnerships has led to a rise in the levels of repartnering in nearly all European countries (Chapter III). Numerous studies, mainly based on individual countries, have examined the individual socio-demographic determinants of repartnering (Beaujouan 2012, Ivanova et al. 2013, Koo et al. 1984, Lampard and Peggs 1999, Meggiolaro and Ongaro 2008, Poortman 2007, Skew et al. 2009, Sweeney 1997). However, less attention has been paid to explaining the large differences in the prevalence and pace of second union formation in Western societies (Chapter III).

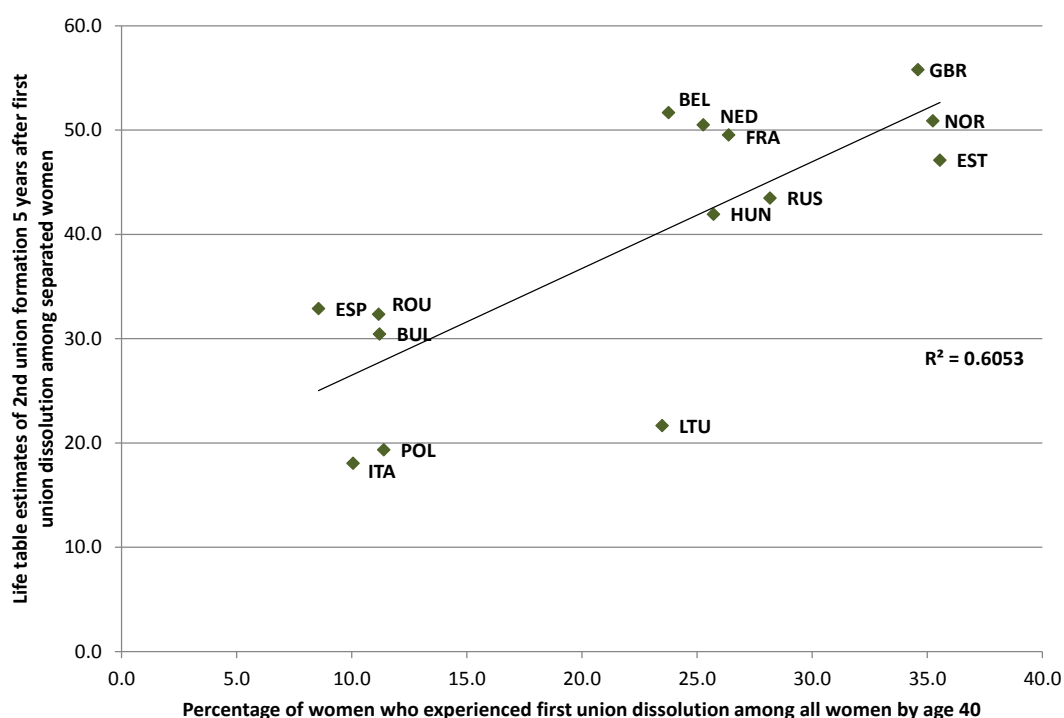
This study is motivated by the observed, strong positive association between the overall level of union dissolution and speed of repartnering in Europe²¹, i.e. in countries where many women dissolve their first union, the proportion of repartnered women within 5 years since first union dissolution is also high (Chapter III). For example, among all women born in 1950-69 in Estonia, Norway and the UK, around 35% experienced first union dissolution, of whom approximately half entered a second co-residential partnership within 5 years (Figure IV.1). In contrast, in Bulgaria, Italy, Poland, Romania and Spain, where less than 12% of all women dissolved their first union, the percentage of separated women who repartnered within 5 years is substantially lower, ranging from less than 20% (Italy and Poland) to around 33% (Bulgaria, Romania and Spain).

We hypothesise that cross-national differences in women's repartnering relate to compositional differences in the population at risk of repartnering, in

²¹ We exclude Austria and the US from the analyses because of a very young sample (the oldest women was born in 1963 and in 1961, respectively).

particular, in terms of women's age and presence of children at first union dissolution. These compositional differences result from variation in the timing, type, and stability of first unions in European countries (Andersson 2003, Billari and Liefbroer 2010, Kalmijn 2007, Kiernan 2002, Sobotka and Toulemon 2008). Given the different nature of cohabitation and marriage regarding union stability and childbearing, in countries where marriage is the dominant type of first partnership, women who are exposed to repartnering may be older and more often mothers than women in the countries where cohabiting first union are wide-spread. In fact, previous research has shown that individual demographic characteristics, i.e. age and fertility, largely determine women's opportunities and constraints in the repartner market (Beaujouan 2012, de Graaf and Kalmijn 2003, Ivanova et al. 2013, Lampard and Peggs 1999, Meggiolaro and Ongaro 2008, Poortman 2007, Skew et al. 2009, Wu and Schimmele 2005).

Figure IV.1: Relationship between the percentage of separated women who repartnered within 5 years after first union dissolution and the percentage of women who experienced first union dissolution by age 40 among all women, birth cohort 1950-69



Note: The results are restricted to the calendar period before 2005. Weights have been applied if available.

This study examines how repartnering behaviour differs across European countries depending on women's age and the presence of children at first union dissolution. A large body of literature has investigated the determinants of second union formation in various European countries (Beaujouan 2012; de Graaf and Kalmijn 2003; Ivanova et al. 2013; Jaschinski 2009; Lampard and Peggs 1999; Meggiolaro and Ongaro 2008; Poortman 2007; Skew et al. 2009). However, the vast majority of studies have focused on a single country, while only two micro-level studies have examined repartnering in a cross-national perspective: Skew et al. (2009) comparing the UK and Australia, and Ivanova et al. (2014) comparing Norway, France, Germany, Romania and Russia. Furthermore, most studies have looked at second union formation in Western Europe (i.e. France, the Netherlands, Norway, Germany, Italy and the United Kingdom) while Eastern European countries (except Russia and Romania in Ivanova et al. 2013) are still understudied.

In this paper, we investigate women's repartnering behaviour in 14 European countries of which, as far as can be determined, Belgium²², Spain and five Eastern European countries (Bulgaria, Estonia, Hungary, Lithuania and Poland), have not been analysed in micro-level repartnering studies thus far. Since the countries included in the study represent various family regimens and union formation patterns (Hajnal 1965, 1982, Reher 1998, Sobotka and Toulemon 2008), using comparable data and methods, we examine whether the effect of women's demographic characteristics is universal across Europe or varies between the countries. In addition, by pooling the data, we aim to explain to what extent the cross-national differences in repartnering observed in Figure IV.1 result from the compositional differences in the female population exposed to repartnering.

Furthermore, this study examines the role of first union type in second union formation process. Previous research in Europe has predominantly focused on women's repartnering after divorce (e.g. de Graaf and Kalmijn 2003, Ivanova et al. 2013, Jaschinski 2012, Lampard and Peggs 1999, Meggiolaro and Ongaro 2008). Less is known about repartnering after separation from

²² De Regt et al. 2012 have analysed the impact of repartnering on economic consequences of marital and non-marital union dissolution in Belgium. However, the systematic investigation of socio-demographic determinants of repartnering was not the focus of the study.

cohabiting first partners²³ (Poortman 2007, Skew et al. 2009). However, given the rise in cohabitation, which tends to be less stable than marriage (e.g. Andersson 2002, Bramlett and Mosher 2002, Heuveline et al. 2003), the population of women exposed to repartnering is likely to be increasingly composed of women who experienced non-marital first union dissolution. Moreover, cohabiting and married women have been shown to differ, for instance, in their family and gender attitudes (e.g. Clarkberg et al. 1995, Lesthaeghe 2010), fertility behaviour (e.g. Kiernan 2001, Perelli-Harris 2014, Wu and Musick 2008), or subjective wellbeing (Soons and Kalmijn 2009), which in turn may have implications for repartnering behaviour. Hence, this study contributes further to the previous literature by examining whether being married or cohabiting at first union matters for second union formation.

Taken together, we conduct two sets of analysis in order to investigate cross-national differences in repartnering. First, we examine whether the effect of women's demographic characteristics, identified in the literature as the main determinants of repartnering, is universal across 14 European countries. Second, we assess to what extent the differences in women's age and in the presence of children at union dissolution explain the variation in second union formation in Europe. In both sets of analysis, we look at the repartnering behaviour of both previously cohabiting and married women in Europe.

IV.2 Explaining cross-national variation in repartnering behaviour

Age at first union formation

Generally, young age at marriage signals that women may be more family-oriented and more strongly committed to the institution of marriage (Bumpass

²³ Recently, an increasing number of studies have focused on rising prevalence of serial cohabitation, particularly among younger birth cohorts (Bukodi 2012, Cohen and Manning 2010, Lichter and Qian 2008, Lichter et al. 2010). However, although serial cohabitation presents a form of repartnering, the studies conducted thus far have mainly examined the predictors of serial cohabitation or marital intentions and marital outcome of serial cohabitators in comparison to single-instance cohabitators. Therefore, less is known about the differences in second union formation among serial cohabitators in comparison to previously married individuals.

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et al. 1990, Smock 1990, Sweeney 1997, 2002). Differences in age at union formation across countries may play an important role in explaining the cross-national differences in repartnering behaviour. Although the period mean age at first marriage has increased in all European countries (Sobotka and Toulemon 2008), the age pattern of marriage has remained much younger in Eastern Europe than in Western Europe. Early first marriage coupled with high divorce rates may explain the relatively high prevalence of repartnering in countries like Russia. On the other hand, the age at first cohabitation may be even more important than the age at marriage, since cohabiting unions are more likely to dissolve (Bramlett and Mosher 2002, Heuveline et al. 2003), which may help to explain the highest repartnering levels in Norway and the UK (Figure IV.1). The late age at marriage in Italy and Spain may be an important explanation for low levels of repartnering for those who divorce in these countries.

First union type

Cross-national differences in first union type may have important implications for second union formation. Cohabiting unions tend to be less stable than marital unions (e.g. Beaujouan and Ní Bhrolcháin 2011, Heuveline et al. 2003), thus resulting in increased exposure to repartnering. In addition, numerous studies have shown that cohabiting women differ from married women in their gender-role and family attitudes (e.g. Clarkberg et al. 1995, Lesthaeghe 2010), subjective well-being (Soons and Kalmijn 2009), relationship quality (Wiik et al. 2009, Wiik et al. 2012) and fertility (e.g. Andersson and Philipov 2002, Kiernan 2001, Perelli-Harris 2014, Wu and Musick 2008). All of these factors may affect union dissolution and subsequently repartnering. Given that in many countries some stigma attached to divorce remains, it is possible that women who have experienced the dissolution of cohabitation could appear more attractive on the re-partnering market than those who have experienced a formal divorce (Berrington et al. forthcoming, Meggiolaro and Ongaro 2008). Hence, differences in the prevalence of cohabitation across Europe (Heuveline and Timberlake 2004, Kiernan 2004, Perelli-Harris et al. 2012) may be an explanation for why some countries experience greater repartnering than others.

Age at first union dissolution

Age at first union dissolution has been identified in the literature as one of the most important predictors of women's chances to repartner, as it determines women's attractiveness to a potential partner (Beaujouan 2012, de Graaf and Kalmijn 2003, Ivanova et al. 2013). Women's age at union dissolution is generally negatively associated with the likelihood of second union formation (Beaujouan 2012, Lampard and Peggs 1999, Meggiolaro and Ongaro 2008, Poortman 2007, Skew et al. 2009, Wu and Schimmele 2005). With increasing age, the pool of potential partners decreases because men tend to form unions with younger women (Bumpass et al. 1990, England and McClintock 2009, Hughes 2000, Ní Bhrolcháin 1992). Also, women's attractiveness to a potential partner may decrease with age because of declining physical attractiveness and health condition (Skew et al. 2009), or because older women may be less willing or unable, due to biological limits on fertility, to have (further) children (Beaujouan 2012, Ermisch and Wright 1991). Therefore, repartnering rates are likely to be higher in countries where women are comparably young at first union dissolution.

Presence of children

Previous fertility is one of the key micro-level characteristics influencing women's second union formation (de Graaf and Kalmijn 2003, Ivanova 2013). Having dependent children in a household is generally viewed as an obstacle to women's repartnering; however, the effect of previous fertility varies by number, age and co-residence of pre-union children (Beaujouan 2012, Ivanova et al. 2013, Koo et al. 1984, Lampard and Peggs 1999, Meggiolaro and Ongaro 2008, Poortman 2007, Skew et al. 2009, Sweeney 1997). The presence of children at union dissolution may affect women's repartnering in various ways. A potential partner has to take into account the direct financial costs of raising a woman's children and face the challenges associated with the complexity of stepfamilies (Allan et al. 2011, Cherlin and Furstenberg 1994, Stewart 2005, Stewart et al. 2003). In addition, dependent children are also likely to restrict meeting and mating opportunities as they increase the cost of time women spend searching for a new partner (de Graaf and Kalmijn 2003, Ivanova et al.

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2013). On the other hand, since mothers experience more adverse economic consequences of union dissolution than their childless counterparts (Amato 2000), having children may increase women's incentive to repartner in order to improve the household's financial situation (de Graaf and Kalmijn 2003, Ivanova et al. 2013). However, childless women may also want to form a second union in order to enter motherhood and achieve their childbearing intentions. Thus, given the multifaceted effect of children on repartnering, the country-specific fertility patterns, particularly whether childbearing in cohabitation is common, may also be important explanatory factors for second union formation.

This study allows us to better understand which micro-level demographic components, i.e. age, first union type or fertility, are most important for explaining the cross-national differences in repartnering. Yet, one must recognize that women's age at first union formation and dissolution, first union type and presence of children may be strongly interrelated. With rising age at first marriage and declining first marriage rates, cohabitation has become an increasingly common living arrangement among young adults. Given the younger age at the onset of cohabitation and the fragile character of non-marital unions, women who dissolved cohabiting unions are likely to be younger than previously married women. Furthermore, despite the increase in the prevalence of cohabitation, in many countries marriage has remained the predominant setting for childbearing and childrearing (Perelli-Harris 2014, Perelli-Harris et al. 2012) suggesting that previously cohabiting women are more likely to be childless when re-entering the partner market than divorcees. The interaction between cohabitation, women's age and whether children are present at union dissolution implies that young people may be particularly advantaged in the repartner market and thus cycle through relationships at a greater rate (Cohen and Manning 2010, Lichter and Qian 2008, Lichter et al. 2010). Nonetheless, it is important to acknowledge that the institution of marriage itself has experienced profound changes (Amato and Hohmann-Marriott 2007, Cherlin 2004, Coontz 2004, Giddens 1992, Thornton et al. 2007), leading to increasing divorce rates which contributed to the pool of women exposed to repartnering.

IV.3 Data and analytical procedure

Harmonized Histories

The data come from the Harmonized Histories (see Chapter III.3.1) and represents different family patterns across Europe (Reher 1998, Sobotka and Toulemon 2008). The analytical sample consists of women born in 1950-69, who entered their first union aged under 40 and subsequently dissolved it (Table IV.2). The differences in the survey year and the sample composition imply cross-national differences in the exposure time to first union dissolution and to repartnering following separation or divorce. Hence, in order to make the results comparable across countries, the analysis is restricted to the calendar period before 2005. Consequently, repartnering behaviour of women aged 36 to 55 at the time of the survey is examined. Women with incomplete or inconsistent partnership histories, e.g. women who entered a second union without separating from the first partner, or cases where the data indicate that the spouse died but the woman was not married are excluded. The sample size for this birth cohort for each country varies from 262 in Bulgaria to 1025 in Norway. Altogether we examine the repartnering behaviour of 7771 women of which 3686 had formed a second co-residential union within 10 years since first union dissolution.

Analyses

Cross-national differences in women's repartnering behaviour are investigated by presenting descriptive statistics and conducting regression analyses. Similarly to Chapter III, we first provide insights into repartnering dynamics of women born 1950-69 across Europe using nonparametric life table (Kaplan-Meier) estimates (Liefbroer and Dourleijn 2006), and then examine how the population at risk of repartnering varies in terms of individual level demographic characteristics across European countries. We start by looking at cross-national differences in age at first union formation and age at first dissolution and investigate the relationship between these explanatory variables. We use categorical variable and median age at first union formation and dissolution for the descriptive part of the analyses. We discuss also the

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cross-national differences in the duration of first union as a possible factor explaining variation in repartnering between countries.

Table IV.1: Description of the sample

Country	Survey	Survey year	Women in survey	Birth cohorts in survey		Separated women born 1950-69	Number of events (*)	Person-months (*)
Belgium	GGS	2008/10	3728	1928	1990	295	174	15649
Bulgaria	GGS	2004	7007	1919	1987	262	103	19897
Estonia	GGS	2004/05	5034	1924	1983	660	364	41010
France	GGS	2005	5708	1926	1987	689	341	41469
Hungary	GGS	2004/05	7517	1926	1983	567	290	35451
Italy	GGS	2003	21454	1901	1985	790	177	56695
Lithuania	GGS	2006	5037	1926	1989	401	110	31137
Netherlands	FFS	2003	4229	1940	1984	458	295	26231
Norway	GGS	2007/08	7541	1927	1988	1025	637	57634
Poland	GGS	2010/11	11578	1927	1993	538	147	41183
Romania	GGS	2005	6009	1925	1987	274	97	19866
Russia	GGS	2004	7038	1923	1987	842	424	56783
Spain	SFS	2006	9737	1908	1991	275	102	17286
UK	BHPS	2005/06	7856	1925	1989	695	425	42137
Total						7771	3686	502428

Note: (*) Female birth cohort 1950-69, within 10 years since separation, women's experiences are censored at 2005.

Furthermore, we present cross-national differences in the type of the dissolved first unions. Women who married their first partner directly as well as those whose first marital unions were preceded by cohabitation are assigned to the "marriage" category. Separated women who lived in non-marital co-residing unions constitute the category "cohabitation" and we refer to them by "previous cohabitators". Although numerous studies have examined the impact of premarital cohabitation on divorce risks (Jose et al. 2010, Kiernan 2002, Liefbroer and Dourleijn 2006, Stanley et al. 2010), the effect of the entry into first partnership, i.e. whether it was direct marriage or marriage preceded by cohabitation, on women's repartnering has not been widely studied and the results coming from multivariate analyses are mixed (Lampard and Peggs 1999, Poortman 2007, Skew et al. 2009, Wu and Schimmele 2005). Our decision to look only at the exit status of first partnership is motivated by the differences between married and cohabiting women (Clarkberg et al. 1995, Lesthaeghe 2010, Perelli-Harris 2014, Soons and Kalmijn 2009, Wu and Musick 2008), and the fact that the wide-ranging consequences of divorce and non-marital separation (Avellar and Smock 2005, de Regt et al. 2012, Manting and Bouman

2006) may affect women's repartnering behaviour differently (Chapter III). Finally, we investigate the role of previous fertility on repartnering chances by using a dichotomous dummy variable describing motherhood status at union dissolution.

The literature driven selection of explanatory variables and the model-building strategy is tested statistically. We examine the relationship between the outcome and the categorical variables using Pearson's Chi-square test. The relationship between the outcome variable and the continuous independent variables in each country is tested using numerous bivariate logistic regressions (Hilbe 2009, Hosmer et al. 2013). Variables with p-values smaller than 0.25 are selected into the multivariate models (Mickey and Greenland 1989). Furthermore, we check for possible multicollinearity between the independent variables which is likely to bias the estimates. For this purpose, following Menard (2002), we run an OLS regression model with dependent and independent variables used in the logistic models and check the variance inflation factor (VIF).

In the regression modelling, we conduct two sets of multivariate analyses using the discrete-time hazard models (Allison 1982, Yamaguchi 1991). These models have been used in previous studies on repartnering (e.g. De Graff and Kalmijn 2003, Ivanova et al. 2013, Skew et al. 2009) and are defined as follows:

$$\log\left(\frac{P_{it}}{1 - P_{it}}\right) = \alpha_t + \beta_1 x_{it1} + \dots + \beta_k x_{itk}$$

where P_{it} denotes the conditional probability that individual i experiences an event at time t given that this event has not occurred yet. The left side of the equation describes the logit (log-odds) of P_{it} and the right side is a linear function of a set of covariates k and the set of constants for each time point α_t . We present our results using exponentials of the regression coefficients β and interpret them as odds ratios.

First, for each country, we model repartnering risks controlling for numerous individual-level demographic determinants of repartnering. The exposure to repartnering begins with the month of separation or divorce

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depending on what comes first.²⁴ The event – repartnering – occurs when the woman enters a second co-residential union. Observations have been censored when women have not found a new partner within 10 years after first union dissolution, or at the time of the survey. We group months into years and specify the duration since first union dissolution as follow: “less than a year” (ref.), “1 to less than 2 years”, “2 years to less than 3 years”, “3 years to less than 5 years”, “5 years to less than 7 years”, and “7 years to less than 10 years”. First, we test, for each country separately, the effect of various explanatory variables discussed in the descriptive section and examine the changes in estimates of repartnering risks. Subsequently, we present the most suitable regression model which includes (i) type of first union at dissolution (ref. marriage), (ii) women’s age at first union formation (categorical variable, ref. 20-23), (iii) women’s age at dissolution (categorical variable, ref. 25-30), (iv) the presence of children at dissolution (ref. childless), and (v) the birth cohort (ref. 1950-59). We justify shortly the model specification and discuss the main findings from the other single country models (the detailed results are presented in Appendix B 4). With this set of analyses, we investigate whether European countries differ in the effects on various individual demographic characteristics of repartnering.

The second set of multivariate analyses examines whether cross-national differences in repartnering behaviour are explained by compositional differences in micro-level demographic characteristics of population at risk of repartnering. For this purpose, we pool the data from 14 countries and estimate a series of discrete-time hazard models for all countries together (Liefbroer and Dourleijn 2006, Perelli-Harris 2013). We add a country indicator to the base model and investigate how the risk of repartnering changes across Europe when individual determinants of second union formation are incrementally included. We choose France as a reference category due to her moderate level of union dissolution and cohabitation. The duration since first union dissolution has, this time, only three categories: “less than 2 years” (ref.), “2 to 5 years”, and “5 to 10 years”. Model 1 includes the duration since separation, the country variable (ref. France) and the birth cohort (ref. 1950-59). We then incrementally include age at first union dissolution (as continuous

²⁴ For simplicity we refer to women who dissolved their marital first union as to “divorcees” even though the legal divorce may have occurred later after separation.

variable, Model 2), first union type at dissolution (Model 3, ref. marriage), and presence of children (Model 4, ref. childless).

We take into account that the estimated coefficients are not directly comparable across same-sample nested models due to unobserved heterogeneity (Mood 2010). Since the residual variance is fixed each new explanatory variable in the consecutive nested model increases the explained variance and hence the total variance of the dependent variable. Consequently, whilst comparing odds ratios across nested models, we do not know whether the changes in the variable of interest (i.e. country) are due to confounding or rescaling of the models (Karlson et al. 2012). We apply the KHB user-written STATA command (Karlson et al. 2012, Kohler et al. 2011) to address this problem. The KHB standardises the scaling and error distribution across two models and decomposes the total effect of the variable of interest (without additional covariates) into the direct effect (not mediated by additional covariate) and indirect effect (mediated by covariate). Finally, we test whether the independent variables improve the model fit using the log-likelihood ratio test. The goodness of fit is assessed using the Akaike Information Criteria (AIC).

IV.4 Results

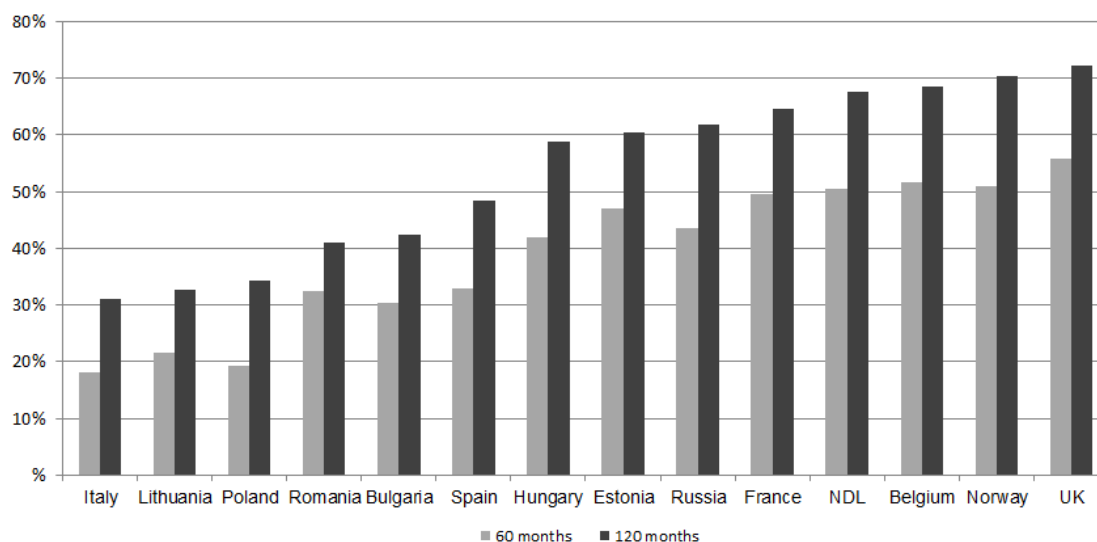
IV.4.1 Population at risk of repartnering - descriptive statistics

Figure IV.2 presents life table (Kaplan Meier) estimates of the cumulative percentages of women born 1950-69 in each country who repartner within 5 and 10 years after first union dissolution. The cumulative percentages of women entering a second union within 5 years after first union dissolution range from 18% in Italy to 56% in the UK. The differences are even larger when looking at the cumulative percentages of women who repartner within 10 years after first union dissolution (31% in Italy vs. 72% in the UK). Generally, women in Southern European countries form second union to a lesser extent than separated women in Western and Northern Europe. The repartnering dynamics in Eastern European countries are more diverse. Repartnering in Poland, Lithuania, Romania and Bulgaria resembles the Mediterranean pattern. In Estonia, Hungary and Russia, on the other hand, separated women have a

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similar probability of second union formation to women in Northern and Western Europe. The differences between the countries are statistically significant (Wald Chi2).

Figure IV.2: Life table estimates of cumulative proportions of repartnering within 5 and 10 years since first union dissolution (divorced or separated, whichever comes first), women born in 1950-69, prior to 2005



Note: Weights have been applied if available.

Cross-national differences in repartnering behaviour are even more pronounced when the pace of repartnering, i.e. time until 25%, 50% or 75% of separated women repartner is examined. Table IV.2 shows that in Belgium, Estonia, France, Hungary, the Netherlands, Norway, Russia and the UK around a quarter of women repartner within approximately two years after separation from the first partner. By contrast, in Italy, Lithuania and Poland, it takes almost 7 years for 25% of separated women to start a second co-residential union. The median duration to repartnering (i.e. when 50% of separated women repartner) is the shortest in the UK (4.1 years) followed by Belgium, Norway and the Netherlands (around 5 years). At the other end of the spectrum, in Lithuania, Italy and Poland, the pace of repartnering is so slow that we cannot observe the median duration to repartnering in the data.

Table IV.2: Life table estimates – lower quartile, median and upper quartile of repartnering, women born in 1950-69, prior to 2005

Country	Time to repartnering (in years)		
	25%	50%	75%
Belgium	1.8	4.7	19.8
Bulgaria	4.2	22.0	26.5
Estonia	1.8	6.0	.
France	2.0	5.3	16.5
Hungary	2.3	7.5	.
Italy	7.1	.	.
Lithuania	6.8	.	.
The Netherlands	2.3	4.9	17.8
Norway	2.1	4.8	12.6
Poland	6.8	.	.
Romania	3.2	23.2	.
Russia	2.1	6.2	23.7
Spain	4.1	12.3	.
The United Kingdom	1.5	4.1	12.7

Note: Weights have been applied if available.

With reference to Figure IV.1, in some countries repartnering is thus a rather marginal demographic phenomenon occurring at a relatively slow pace (e.g. Italy, Poland and Lithuania). In others, a substantial proportion of the female population form a second union and this not long after first union dissolution (e.g. the UK, Norway and the Netherlands). In the following analyses, it is tested to what extent the variation in repartnering dynamics across Europe is attributed to the compositional differences in population at risk of repartnering in terms of age patterns of first union formation and dissolution and first union type. Table IV.3 presents the distribution of population at risk of repartnering by micro-level demographic characteristics in 14 European countries.

Table IV.3: Description of population at risk of repartnering. Women born in 1950-69 who entered first union by age 40 and subsequently dissolved it by the survey date

	Belgium	Bulgaria	Estonia	France	Hungary	Italy	Lithuania	NDL	Norway	Poland	Romania	Russia	Spain	UK
Age at first union formation														
median	20.0	19.8	20.5	21.1	20.3	23.8	21.8	21.3	20.7	21.4	20.6	20.3	22.2	20.8
under 20	49%	53%	40%	34%	46%	21%	26%	27%	39%	31%	42%	44%	28%	37%
20-24	35%	33%	45%	42%	40%	31%	47%	53%	41%	43%	38%	38%	44%	44%
24+	16%	14%	15%	23%	15%	49%	27%	20%	20%	26%	20%	18%	28%	19%
Type of the first dissolved union														
Marriage	78%	93%	82%	54%	87%	79%	90%	60%	56%	90%	85%	89%	89%	57%
Cohabitation	22%	7%	18%	46%	13%	21%	10%	40%	44%	10%	15%	11%	11%	43%
Age at first union dissolution														
median	31.5	28.8	28.2	31.0	30.0	33.7	32.0	29.0	28.9	32.8	31.4	27.8	33.8	26.6
under 25	15%	23%	29%	21%	28%	10%	16%	29%	30%	17%	19%	36%	14%	38%
25-30	25%	36%	30%	24%	21%	18%	24%	28%	25%	21%	25%	24%	22%	25%
30-35	25%	23%	18%	24%	20%	28%	26%	17%	19%	21%	23%	19%	19%	20%
35+	34%	18%	23%	31%	30%	43%	35%	27%	26%	41%	33%	22%	46%	16%
Presence of children at first union dissolution														
No	32%	16%	15%	37%	22%	39%	13%	57%	38%	14%	22%	20%	27%	48%
Yes	68%	84%	85%	63%	78%	61%	87%	43%	62%	86%	78%	80%	73%	52%
Women	295	262	660	689	567	790	401	458	1,025	538	274	842	275	695

Note: Category "marriage" encompasses women married directly and women whose first marital union was preceded by cohabitation. Women's experiences are censored at 2005. Weights have been applied if available.

Age at first union formation

The age pattern of first union formation among women whose first union ended in dissolution varies across European countries. The median age at first union formation among separated women ranges from slightly less than 20 in Bulgaria to 23.8 in Italy (Table IV.3). Looking at the age groups, in most countries the majority of women whose first union dissolved later in life had started their co-residential first partnerships aged 20 to 24. However, in countries like Belgium, Bulgaria, Hungary, Romania and Russia women who eventually separated were predominantly under 20 when they formed their first union. Generally, in all countries except Italy, 8 out of 10 women (77-88%) whose first union dissolved entered the first union by age 24. In Italy, which is characterised by a late transition into first partnership (Sobotka and Toulemon 2008), only 51% of women whose first union dissolved formed those unions in their early 20s.

It is important to recognise that since we examine repartnering behaviour of women in their midlife, our population at risk of repartnering may be selective of those who entered their first union at very young ages. In fact, a large body of literature has shown that young age at first union formation, particularly marriage, is a key predictor of a later union dissolution (Berrington and Diamond 1999, Lyngstad and Jalovaara 2010, Styrc and Matysiak 2012, Teachman 2002). Women who had formed first partnerships in their 30s and experienced subsequent dissolution are less prevalent in the sample (except Italy 14%, not shown here).

Age at first union dissolution

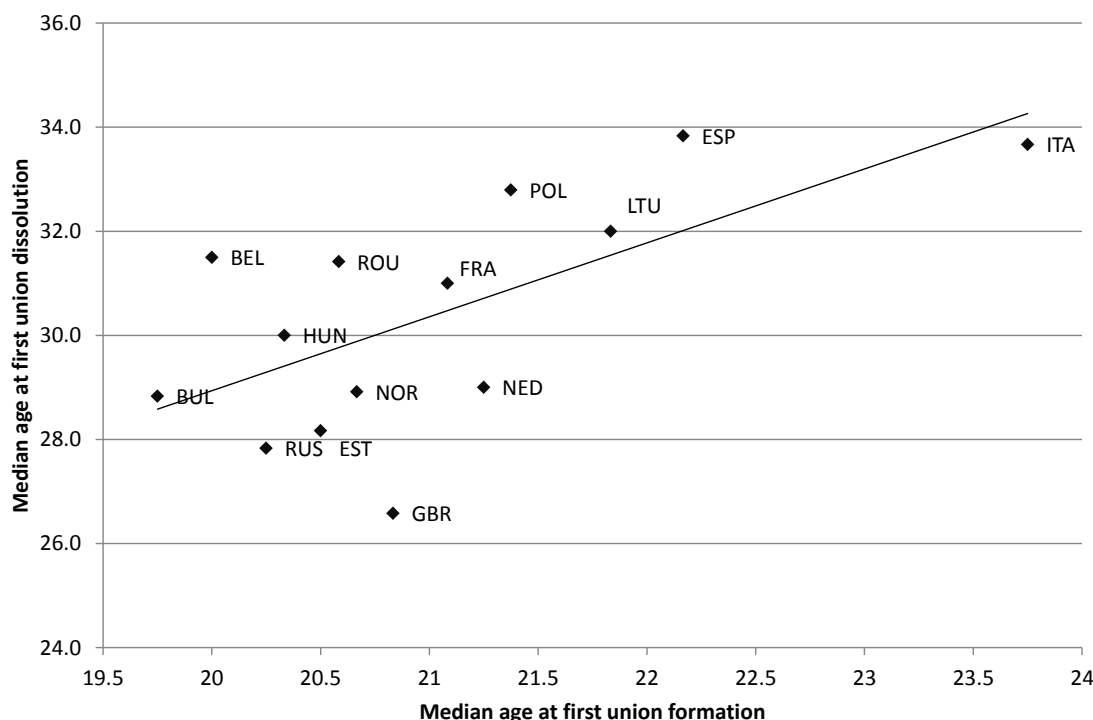
The age at which women re-enter the partner market is viewed as one of the most important determinants of women's chances of second union formation. Our data for the birth cohort 1950-69 suggest strong differences in the age at union dissolution across Europe (Table IV.3). The median age at separation/divorce varies from 26.6 years in the UK to over 33 in Italy and Spain (33.7 and 33.8, respectively). The differences between countries are

particularly pronounced when we look at the age distribution by age group of first union dissolution. In Bulgaria, Estonia, the Netherlands, Norway, Russia and the UK most women are exposed to repartnering at a relatively young age; more than a half of women (55-65%) experience first union dissolution under age 30, often in their early 20s. However, those countries do not show a uniform pattern of age at dissolution; while in Bulgaria and the UK first union dissolution at higher ages is noticeably less common, in Estonia, Hungary, the Netherlands and Norway, the age patterns of first union dissolution takes a form of a U-shape. By contrast, in Belgium, France, Italy, Lithuania, Poland, Romania and Spain women separate more often from their first partner when they get older, i.e. the majority of women are over 30 (often aged 35+) when their first union dissolves.

Interrelation between age at first union formation and age at first union dissolution

The descriptive statistics of the population at risk of repartnering suggest that cross-national differences in age at first union dissolution are greater than age differences at first union formation (Table IV.3). Furthermore, we find that the relationship between age patterns of first union formation and first union dissolution in a country varies across Europe; e.g. countries where separated women enter their first union at a very young age may show different age patterns of first union dissolution (e.g. in Belgium and Bulgaria). An additional analysis shows a weak to moderate positive correlation (0.22 in Bulgaria to 0.49 in Estonia) between age at first union formation (among separated women) and the age at first union dissolution in each country (see Appendix B 1). However, when we look at the relationship between the median age at first union formation and the median age at first union dissolution (Figure IV.3) in the pooled data set the correlation coefficient shows a much stronger association (corr. coef. = 0.65). Hence, the differences in the strength of the correlation coefficients between age at first union formation and dissolution have implications for empirical models; we include both variables in a single country models but examine only the role of age at first union dissolution as a main determinant of repartnering in the pooled data set.

Figure IV.3: Relationship between median age at first union formation and median age at first union dissolution of women whose first union dissolved, women born in 1950-69.



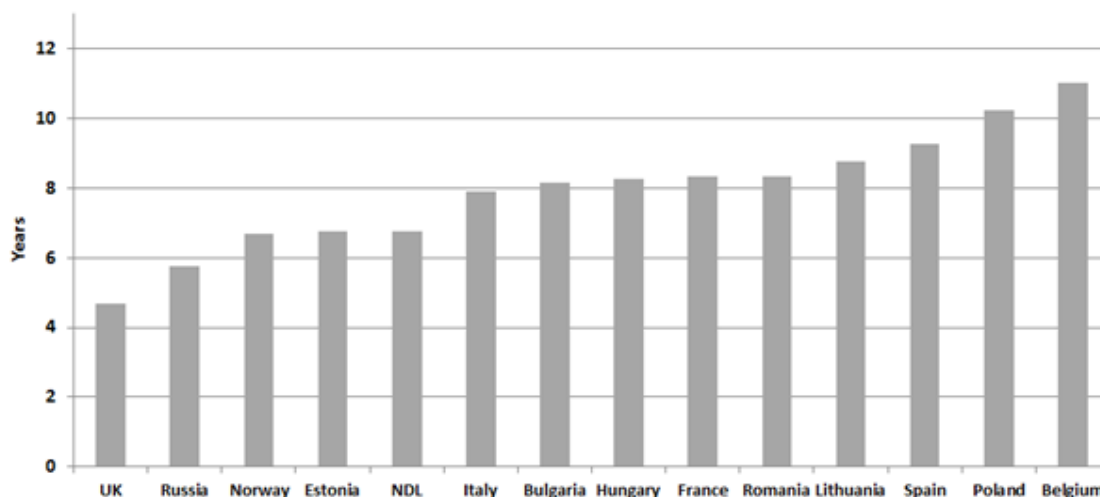
Note: Median age at entering first union is calculated for women who formed their first partnership by age 40 and subsequently experienced first union dissolution. Women's experiences are censored at 2005. Weights have been applied if available.

First union duration

The cross-national differences in the interplay between the age at first union formation and the age at first union dissolution are likely to reflect the variation in the duration of the first partnership which may be viewed as an indicator for commitment to the partner and investment in the union. Figure IV.4 shows, in ascending order, the differences in the median duration of the first dissolved union across Europe which ranges from 4.7 years in the UK to 11 years in Belgium. The short union duration in the UK reflects the relatively young age at both first union formation (early 20s) and first union dissolution (in the 20s). In Belgium, on the other hand, a long duration of first partnership is explained by the fact that majority of women at risk of repartnering enter their first union also in their very early 20s but dissolve it mainly at higher ages

(30+). Hence, the cross-national differences in union duration may also account for the differences in repartnering behaviour across Europe.

Figure IV.4: Median duration of first union of separated women in years. Birth cohort 1950-69.



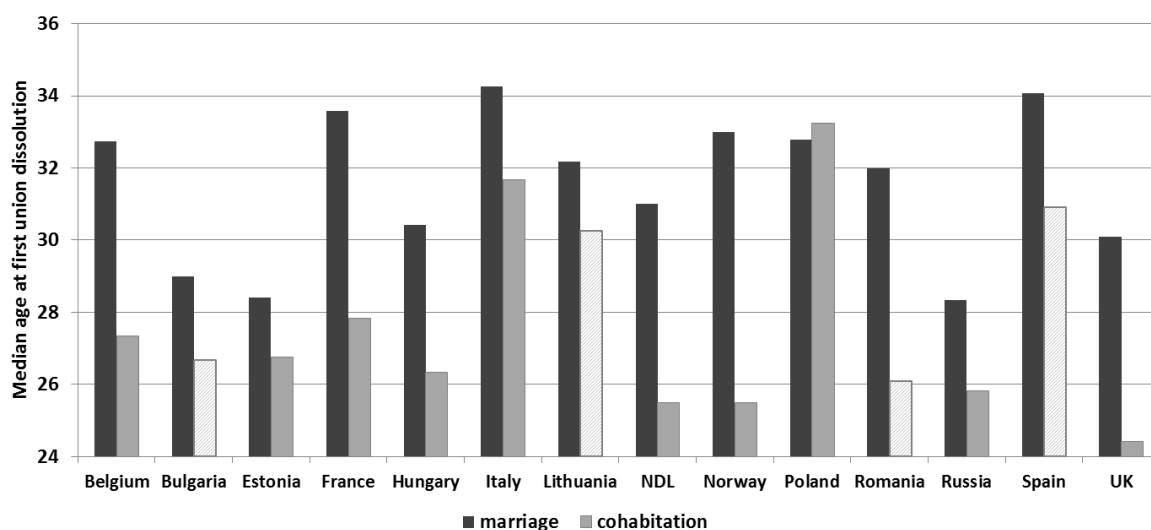
Note: Women's experiences are censored at 2005. Weights have been applied if available.

First union type

Apart from the difference in the timing of first union formation and dissolution, European countries differ in the type of dissolved first unions (Table IV.3). Although in all countries the vast majority of women who are at risk of repartnering were previously married, countries differ in the percentage of women who experienced a non-marital first union dissolution. In France, the Netherlands, Norway and the UK at least 40% of separated women dissolved a non-marital first union. In Bulgaria, Lithuania, Poland, Russia and Spain, on the other hand, only around one in 10 separated women ended a cohabiting first union. In general, the differences in the percentage of dissolved non-marital unions among all dissolved unions correspond to the diffusion of cohabitation in Europe (Heuveline and Timberlake 2004, Kiernan 2004, Perelli-Harris et al. 2012).²⁵

²⁵ Yet, we have to be careful while interpreting the results of the effect of first union type on repartnering in Bulgaria, Lithuania, Romania and Spain, as the number of women in our sample in those countries whose first separated union was a cohabitation is very low (<50 obs.).

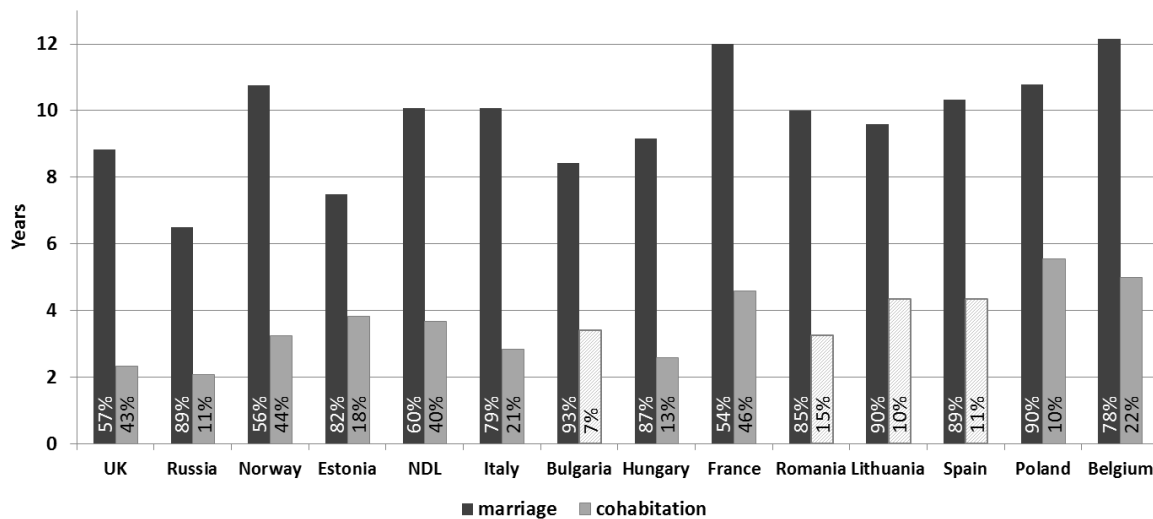
Figure IV.5: Median age at first union dissolution by first union type, women born in 1950-69.



Note: Light grey bars with upward diagonal pattern indicate a small number (<50 obs.) of previously cohabiting women at risk of repartnering in a sample. Hence, the results for these countries should be interpreted with great cautions. Category “marriage” encompasses women married directly and women whose first marital union was preceded by cohabitation. Women’s experiences are censored at 2005. Weights have been applied if available.

Differences in first union type may also explain variation in the age at separation across Europe. Figure IV.5 shows that in all European countries (except Poland) divorced women are substantially older at union dissolution than previously cohabiting women. The median age at marital first union dissolution ranges from around 28 in Russia and Estonia to over 34 in Italy and Spain, while the median age at non-marital union dissolution is considerably younger and varies from 24 years in the UK to over 33 in Poland. The differences in median age at union dissolution by first union type are generally more pronounced in Western and Northern European countries (5.5-7.5 years), where cohabitation is more common than in Southern and Eastern Europe (no more than 3.2 years).

Figure IV.6: Median duration of first union of separated women in years by first union type and the percentage of previously cohabiting and married women at risk of repartnering in a country, women born in 1950-69.



Note: Light light grey indicate a small number (<50 obs.) of previously cohabiting women at risk of repartnering in a sample. Hence, the results for these countries should be interpreted with caution. Category “marriage” encompasses women married directly and women whose first marital union was preceded by cohabitation. The percentages at the bottom of each bar show the proportion of separated women by previous union type in a country. Women’s experiences are censored at 2005. Weights have been applied if available.

Furthermore, we observe variation in the stability of dissolved marital and cohabiting first unions across Europe. Figure IV.6 presents the median duration of first union by partnership type (the countries are ordered according to the median first union duration shown in Figure IV.4). Although, in all European countries dissolved marital first unions are considerably longer than non-marital first unions which ended in separation, our findings are complex and again demonstrate the diversity in first partnership patterns across Europe. For example, the very short median first union duration in the UK is mainly driven by relatively short but very common cohabiting unions and slightly less stable marriages than in the rest of Europe. In Russia, on the other hand, the short median first union duration reflects the hegemony of relatively unstable marriages (Figure IV.6). Therefore, cross-national differences in second union formation may be explained by the variation in the prevalence and the stability of cohabiting and marital unions across Europe.

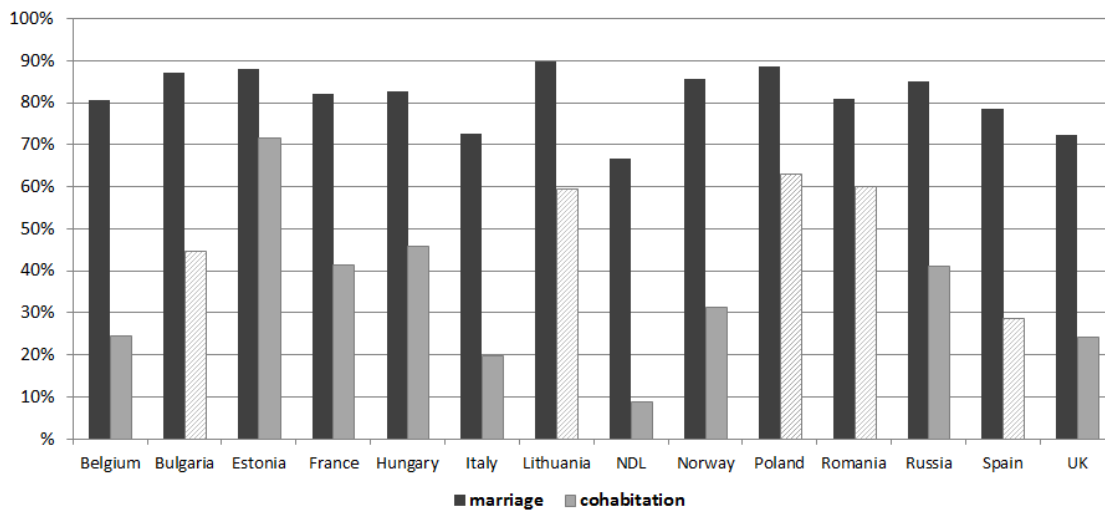
Presence of children

Presence of children at union dissolution generally has a negative effect on women's repartnering chances. Hence, the compositional differences in the proportion of mothers exposed to repartnering may account for cross-national variation in repartnering. However, in all countries except the Netherlands, most women are mothers when they become at risk of repartnering (Table IV.3); the percentage of childless women in our data varies from 15% or less in Estonia, Lithuania, and Poland to almost a half in the UK. In the Netherlands, on the other hand, 57% of women who re-enter the partner market are childless. The East-West Europe divide is striking and may reflect persisting age differences in transition to motherhood across the continent (Sobotka and Toulemon 2008, Billari and Liefbroer 2010).

Having children at union dissolution is likely to be related to the type of the dissolved first union. Figure IV.7 shows the presence of children at first union dissolution by first union type. Not surprisingly, in most countries having children at union dissolution is closely related to marriage. The percentage of mothers among previously married women exposed to repartnering varies from 67% in the Netherlands to 90% in Lithuania. The cross-national differences in the presence of children at non-marital union dissolution are considerably larger; while in the Netherlands less than 10% of women separated from cohabiting partner were mothers, at the other end of the spectrum, in Estonia over 70% of previously cohabiting women have children when they re-enter the partner market.

It seems that the percentage of mothers among cohabiting women whose first unions dissolved is much lower in Western and Southern European countries (less than 30% in Belgium, Italy, the Netherlands, Norway, Spain and the UK) than in Eastern Europe. This result is somewhat puzzling as one may expect that in countries with very strong marriage norms and a low prevalence of cohabitation, the percentage of previously cohabiting women with children at union dissolution will be lower. On the one hand, the relatively high percentage of mothers among women who dissolved cohabiting first unions may result from a small sample size of cohabiting women (<50 obs.) in Bulgaria, Lithuania, Poland and Romania. On the other hand, previous research

Figure IV.7: Presence of children at separation by first union type, women born in 1950-69



Notes: Light grey bars with upward diagonal pattern indicate a small number (<50 obs.) of previously cohabiting women at risk of repartnering in a sample. Hence, the results for these countries should be interpreted with caution. Category “marriage” encompasses women married directly and women whose first marital union was preceded by cohabitation.

on Eastern Europe has shown that the vast majority of women who cohabit at the start of first partnership, transit their unions into marriage before first birth (Perelli-Harris et al. 2012). Therefore, women who remained cohabiting after first birth may be somewhat selective and hence have an elevated risk of union dissolution.

Descriptive statistics reveal cross-national differences in the composition of the population at risk of repartnering in terms of individual demographic characteristics identified in the literature as the key determinants of women’s second union formation. We find diversity in the age patterns of first union formation and dissolution, which are reflected in the differences in the duration of first unions across Europe. We have also shown a general diversity in first partnership patterns across Europe pointing out that age at first union formation, age at dissolution, first union type and presence of children may be interrelated.

Therefore, before performing discrete-time hazard models with micro-level demographic indicators for each country separately, we test the

relationship between dependent and explanatory variables. As expected, Pearson's Chi2 test indicates that in all countries age at first union dissolution (categorical) and presence of children, and in most countries (except Italy, the Netherlands and Spain) also age at first union formation (categorical) are significantly related to repartnering. We test the relationship between dependent variable and continuous explanatory variables using univariable logistic regression models. Again in all European countries, age at union dissolution (numerical) is significantly related to repartnering. Age at first union formation (numerical) is related to repartnering in all countries apart from Italy and the Netherlands.

In addition, we test for possible multicollinearity between the independent variables which may bias the estimates. For this purpose, we apply OLS regression models using the same dependent and independent variables as in the later logistic models and calculate the Variance Inflation Factor (VIF). All VIF are below 2²⁶ indicating no serious problem of collinearity between age at first union formation, age at first union dissolution, type of the first union and presence of children in any of the European countries (see Appendix B 1).

IV.4.2 Micro-level determinants of repartnering across Europe; single-country event-history models

To examine the impact of various individual-level demographic characteristics on repartnering behaviour across Europe, we estimate discrete-time hazard models for each country separately (Table IV.4). For each country, we estimate numerous models with various combinations of explanatory variables (Appendix B 3). Based on the likelihood ratio tests, we then select the model which best fits the data in most European countries and re-run it while applying survey weights in order to show nationally representative results. The process time starts at first union dissolution (separation or divorce whichever comes first) and the outcome variable is the beginning of a second co-residential union. Table IV. 4 shows the effect of duration since separation

²⁶ Values over 10 are likely to indicate multicollinearity between explanatory variables (Menard 1995).

Table IV.4: Odds ratios from discrete-time hazard model of repartnering, women born in 1950-69 who entered first union by age 40 and subsequently dissolved it; Single country models

	Belgium	Bulgaria	Estonia	France	Hungary	Italy	Lithuania	NDL	Norway	Poland	Romania	Russia	Spain	UK
Duration since first union dissolution in years (ref.<1)														
1-2 years	1.14	1.02	1.24	1.25	1.07	0.94	1.51	2.78***	1.66***	1.49	1.21	1.01	1.37	0.91
2-3 years	1.25	0.64	0.86	1.39	0.85	0.79	1.15	1.78*	1.82***	1.39	1.33	0.78	0.96	0.82
3-5 years	0.94	0.57	0.74	0.95	0.87	1.06	0.84	2.61***	1.28	0.83	0.60	0.78	1.01	0.73
5-7 years	0.57	0.52	0.38***	0.49**	0.48**	1.12	0.59	1.61	1.21	1.36	0.51	0.69*	1.21	0.60*
7-10 years	0.70	0.31**	0.46***	0.65	0.70	0.61	0.71	1.03	0.90	0.89	0.29**	0.57**	0.42	0.51**
First union type (ref. marriage)														
cohabitation	0.91	1.23	1.13	0.75*	1.18	1.35	0.65	1.03	1.08	1.34	1.30	0.81	1.44	1.11
Birth cohort (ref. 1950-1959)														
1960-1964	1.49*	0.96	1.19	1.16	0.94	1.15	0.99	1.31	1.23*	1.00	1.01	1.10	1.26	1.23
Women's age at first union formation (ref. 20 up to 24)														
younger than 20	0.69*	0.97	1.10	1.04	1.48**	0.57*	1.27	1.00	1.04	1.58*	1.91**	1.17	1.00	1.09
24 and older	0.40**	0.54	0.70	0.79	0.95	1.00	0.77	0.80	0.61***	0.67	0.63	1.14	0.78	0.81
Women's age at first union dissolution (ref. 25-30)														
younger than 25	1.29	1.14	1.43**	1.35	1.46*	1.43	1.49	0.79	0.95	1.16	1.18	1.65***	1.26	1.28
30 up to 35	1.00	0.84	0.98	1.15	0.69	0.52**	0.53*	0.83	0.78	0.83	0.75	0.85	0.62	0.76
35 and older	0.89	0.35*	0.40***	0.58**	0.52**	0.28***	0.58	0.49**	0.55***	0.44**	0.43*	0.48***	0.46*	0.96
Presence of children (ref. No)														
Yes	0.68	0.60	0.93	0.63**	0.77	0.79	0.50**	0.59**	0.66***	0.59*	0.73	0.80	0.72	0.49***
Constant	0.017***	0.015***	0.011***	0.015***	0.011***	0.006***	0.009***	0.008***	0.012***	0.005***	0.008***	0.011***	0.009***	0.019***
Person-months	15649	19897	41010	41469	35451	56695	31137	26231	57634	41183	19866	56783	17286	42137
Number of women	295	262	660	689	567	790	401	458	1025	538	274	842	275	695
Number of events	174	103	364	341	290	177	110	295	637	147	97	424	102	425

Exponentiated coefficients. Significance level: *p<0.05, **p<0.01, ***p<0.001. Note: Women's experiences are censored at 2005. Category "marriage" encompasses women married directly and women whose first marital union was preceded by cohabitation. Weights have been applied if available.

birth cohort, first union type, age at first union formation, age at first union dissolution and presence of children on repartnering across 14 European countries. Note that although the duration of first partnership provides important insights into the character of first union, we do not include it in the multivariate models due to its very strong correlation with age at first union dissolution which is, in this study, the main variable of interest (corr. coef. = 0.8-0.9 across Europe). We acknowledge, however, that cross-national variation in first union duration by first union type may have important implications for repartnering and thus should be investigated in more detail in future research on repartnering.

First union type

Surprisingly, the type of dissolved first union, i.e. whether it was marriage (both direct and preceded by cohabitation) or cohabitation which has not been transformed into marriage, does not matter much for repartnering (Table IV.4). In all countries except France, previously cohabiting and divorced women do not differ in their repartnering behaviour. In France, separated women whose first union had not been transformed into marriage, have 25% lower risks of second union formation than women married at first union. This finding is somewhat surprising as it contradicts our expectations that previously cohabiting women should have higher repartnering risks than divorcees.

However, different country-specific models provide more insights into the effect of first partnership type on second union formation across Europe (see Appendix B 4). Regardless the specification of the single country discrete-time hazard models, first union type does not have any significant effect on repartnering in Belgium, Bulgaria, Lithuania, Poland and Russia. However, at least in Belgium, Bulgaria and Lithuania, the lack of the effect may be due to small sample size. In other European countries (while controlling for duration since first union dissolution and women's birth cohort), first union type does matter when separately age at union formation (Estonia, Hungary, Italy, the Netherlands, Norway, Romania and Spain) or age at union dissolution (Italy) is included in the model. In the UK and Norway, previously cohabiting women

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have a significantly higher risk of repartnering than divorced women in the vast majority of the models. However, the union type effect becomes insignificant when the presence of children is controlled for. Interestingly, for France, in the majority of models previously cohabiting and married women do not differ in their repartnering behaviour; the effect of first union type becomes statistically significant only when the presence of children is included in the model.

Therefore, the results suggest that not the type of first union but other individual demographic characteristics are more important for repartnering chances across Europe. Furthermore, Europe-wide whether the dissolved first union was cohabitation or marriage has no effect on repartnering regardless the percentage of the dissolved cohabiting first unions among all dissolved first unions in a country. Nonetheless, the mechanisms underlying second union formation among previously cohabiting and married women may vary across Europe.

Age at first union formation

The age at formation of the dissolved first unions matters for repartnering behaviour in 6 out of 14 countries, i.e. Belgium, Hungary, Italy, Norway, Poland and Romania (Table IV.4). Repartnering chances generally decrease with increasing age at first union formation. In Hungary, Poland and Romania women who had entered their first unions before age 20 and experienced a subsequent union dissolution have significantly higher risks of repartnering than women who formed their first partnership aged 20 to 23; the odds ratios range from 48% higher in Hungary to 91% higher in Romania than in the reference category. Furthermore, in Belgium and Norway, women who entered their first union at age 24 and older have significantly lower risks of repartnering than women who formed their first partnership in their early 20s. However, somewhat surprising, our findings show also that in Belgium and Italy women who formed their first unions before age 20 have 31% and 43%, respectively, lower risks of repartnering than women who entered first partnership aged 20 to 23.

The results for Hungary, Norway, Poland, Romania and partially Belgium (higher ages) are in line with previous studies suggesting that women who

entered their first unions relatively young may be more family-oriented and, hence, more willing to enter second co-residential partnership after separation (Bumpass et al. 1990, Lampard and Peggs 1999, Sweeney 1997, 2002). In addition, in Hungary, Romania and Poland higher repartnering chances of women who formed their dissolved first unions prior to age 20 may be related to the patterns of first partnership formation in these countries - early and almost universal marriage (Muresan et al. 2008, Puur et al. 2012, Sobotka and Toulemon 2008, Teachman 2002), which coupled with elevated divorce risks for those entering marriage very young (Berrington and Diamond 1999, Lyngstad and Jalovaara 2010, Styrk and Matysiak 2012), may result in an increased exposure to repartnering at still relatively young ages. On the other hand, the rather puzzling low risks of repartnering among women who formed their dissolved first union before age 20 in Belgium and Italy may be explained by a particularly long duration of first unions in those countries and the resulting higher age at union dissolution.

Nevertheless, this study shows also that in many European countries age at first union formation does not matter for repartnering behaviour. The results from various single-country discrete-time hazard models (Appendix B 4) demonstrate that in most countries the effect of age at first union formation becomes insignificant once age at dissolution and presence of children are included in the model. Hence, whereas in some settings the timing of first partnership is likely to play a role in second union formation in other countries repartnering behaviour is mainly explained by women's demographic characteristics at union dissolution.

Age at first union dissolution

The higher age at first union dissolution has a significantly negative effect on repartnering chances in the vast majority of European countries (except Belgium and the UK). Table IV.4 shows that the risk of repartnering among women who separated from their first partner after age 35 ranges from 42% lower in France to 72% lower in Italy in comparison to women who experienced first union dissolution aged 25 to 30. In most countries women whose first

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union dissolved at younger ages do not differ significantly in their repartnering behaviour from women whose first union dissolved aged 25 to 30. Only in Estonia, Hungary and Russia, women who experienced first union dissolution before age 25 have significantly higher odds ratios of repartnering (43-65%) than women in the reference category. This result may be explained by the very young age patterns of first union formation in Eastern Europe (Hajnal 1965, Philipov and Jasilioniene 2008, Sobotka and Toulemon 2008) and relatively high prevalence of first union dissolution in these countries (Chapter III). Women who dissolved their first union before age 25 are likely to resemble never married women, i.e. young age, presumably childless with less ties to a previous partner (Meggiolaro and Ongaro 2008), and hence face a more favourable repartner market than women aged 25 to 30 at first union dissolution.

In Belgium and the UK, the results do not show strong differences in repartnering by age at first union dissolution, although at least in Belgium the lack of significance may be due to small sample size. The result for British women is somewhat surprising. However, Skew et al. (2009) have shown that repartnering chances significantly decrease only for individuals older than 35.²⁷ Therefore, since British women show the lowest median age at union dissolution (26.6) among all studied countries and only 16% women in the UK sample separated from the first partner aged 35+, it may be that we do not fully capture the age effect. In addition, the results from other single-country models for the UK (Appendix B4 the UK, in particular M5a in which the model presented in Table IV. 3 has been nested) indicate that the negative effect of age at union dissolution becomes insignificant once presence of children at separation is controlled for. Hence, since women in the British sample are relatively young when they re-enter the partner market, it may be that not the age but the presence of children at union dissolution is decisive for repartnering behaviour.

In general, our findings on the effect of age at separation on repartnering chances are in line with previous studies on France, Italy, the

²⁷ Previous studies on the UK have adopted two sex models and hence have not looked specifically into determinants of women's repartnering behaviour (Lampard and Peggs 1999, Skew et al. 2009).

Netherlands, Norway, Romania and Russia (Beaujouan 2012, de Graaf and Kalmijn 2003, Ivanova et al. 2013, Meggiolaro and Ongaro 2008, Poortman 2007). Interestingly, we find the same negative age effect in countries which have not been studied in micro-level research thus far, i.e. Bulgaria, Estonia, Hungary, Lithuania, Poland and Spain. Hence, the results suggest that although age patterns of union dissolution vary considerable across the continent, the age seems to hinder women's repartnering chances in a similar way in all European countries.

Presence of children at first union dissolution

Mothers differ significantly in their repartnering behaviour from childless women in France, Lithuania, the Netherlands, Norway, Poland and the UK (Table IV.4); the odds ratios of second union formation in those countries range from 34% lower in Norway to 51% lower in the UK. In remaining countries where the effect of the presence of children at union dissolution is not significant, the odds ratios of repartnering for mothers are also substantially below one.

The significant findings on the role of children in repartnering behaviour corroborate previous research on selected countries (Beaujouan 2012, de Graaf and Kalmijn 2003, Ivanova et al. 2013, Lampard and Peggs 1999, Poortman 2007, Skew et al. 2009). On the other hand, in countries like Belgium, Bulgaria, Romania and Spain, the insignificant effect of the presence of children on women's repartnering may be explained by a small sample size. However, the lack of significance for some countries may be also due to our rather crude operationalization of previous fertility. Since we are only interested in motherhood status at first union dissolution, we do not distinguish between children's number, age and place of residence which interplay has been shown to affect women's repartnering changes (Beaujouan 2012, Ivanova et al. 2013, Meggiolaro and Ongaro 2008, Poortman 2007, Sweeney 1997). Nevertheless, in some countries previous children may indeed have no effect on women's second union formation as some evidence from Northern America has reported (Wu and Schimmele 2005, McNamee and Raley 2011).

Other control variables

Except Belgium and Norway, the odds ratios indicate no significant differences in repartnering behaviour across birth cohorts once women's demographic characteristics at first union dissolution are controlled for (Table IV.4). In Belgium and Norway women born in 1960-69 have 49% and 23%, respectively, higher risks of repartnering than women born in 1950-59. A series of single-country discrete-time hazard models (Appendix B 4) show that controlling only for duration since separation and first union type, women born in 1960-69 in Estonia, France, Italy, the Netherlands and Spain have significantly higher risks of repartnering. However, the effect becomes insignificant once age at union formation and/or age at union dissolution are included into model. In the remaining countries, women's birth cohort does not have a significant effect on women's repartnering behaviour in any of the models. To the best of our knowledge, only one study by Meggiolaro and Ongaro (2008) has controlled for women's birth cohort showing a significantly higher risk of second union formation for women born after 1960. This contradicts our finding for Italy, however, the study by Meggiolaro and Ongaro (2008) has not controlled for age at union formation and looked only at repartnering after divorce.

Furthermore, duration since separation has a significant effect on women's repartnering behaviour in 9 out of 14 countries. The risk of repartnering is particularly high in the first 5 years after first union dissolution and decreases substantially over time. Although many previous studies have not controlled for duration since separation or the effect was not always significant (Ivanova et al. 2013, Skew et al. 2009), our results are in line with studies on Germany (Jaschinski 2011) and the Netherlands (de Graaf and Kalmijn 2003).

IV.4.3 Explaining cross-national differences in repartnering; Pooled discrete-time event-history models of 14 countries

In the second set of multivariate analyses, we examine whether cross-national differences in repartnering behaviour are explained by compositional differences in population at risk of repartnering in terms of women's demographic characteristics. For this purpose, we use a series of additive discrete-time hazard models for the pooled Harmonized History data.

Beginning with Model 1 in Table IV.5 which includes duration since separation, birth cohort and country variable, we incrementally add women's demographic characteristics and analyse changes in the country effect, i.e. how odds ratios of repartnering in European countries changes in comparison to France (ref.). As previously mentioned, note that due to the high correlation between median age at union formation and median age at union dissolution in the pooled data set (corr. coef.=0.65), the pooled models include only the later as the explanatory variable. Our decision is supported by existent literature which identifies age at union dissolution as key determinant of women's repartnering behaviour (Beaujouan 2012, de Graaf and Kalmijn 2003, Ivanova et al. 2013, Lampard and Peggs 1999, Meggiolaro and Ongaro 2008, Poortman 2007, Skew et al. 2009).

Model 1 in Table IV.5 shows the effect of country on repartnering whilst controlling for duration since separation and women's birth cohort. The odds ratios indicate significant differences between most countries (except Estonia, Hungary and Russia) and the reference category (France). Women in the Netherlands, Norway, Belgium and the UK have significantly higher repartnering risks (18-36%) than women in France. By contrast, in Southern Europe and many Eastern European countries the odds ratios of repartnering are significantly lower and range from 30% lower in Spain to 61% lower in Italy and Poland. Women in Estonia, Hungary and Russia do not differ significantly in their repartnering behaviour from women in France. For the other control variables, we find that time since first union dissolution has a significant negative effect on second union formation; the risk of repartnering 3-5 and 5-10 years after first union dissolution is 12% and 41% lower, respectively, than in the first 2 years. Furthermore, the odds ratios of repartnering are significantly higher among women in the younger birth cohorts (1960-69) than among those born in 1950-59.

Table IV.5: Odds ratios from discrete-time hazard model of repartnering, women born 1950-69 who entered first union by age 40 and subsequently dissolved it. Pooled models of 14 countries.

	M1	M2	M3	M4
Duration since separation (ref. less than 2 years)				
2-5 years	0.88***	0.88***	0.88***	0.88**
5-10 years	0.59***	0.57***	0.57***	0.58***
Country (ref. France)				
Belgium	1.33**	1.33**	1.35**	1.33**
Bulgaria	0.60***	0.55***	0.56***	0.58***
Estonia	1.09	0.96	0.99	1.03
Hungary	1.02	0.92	0.95	0.96
Italy	0.39***	0.42***	0.43***	0.41***
Lithuania	0.43***	0.44***	0.46***	0.47***
The Netherlands	1.36***	1.22*	1.23**	1.16
Norway	1.31***	1.19*	1.19*	1.18*
Poland	0.47***	0.46***	0.47***	0.49***
Romania	0.62***	0.62***	0.63***	0.64***
Russia	0.94	0.81**	0.83*	0.85*
Spain	0.70**	0.77*	0.79*	0.77*
The United Kingdom	1.18*	1.04	1.06	1.06
Birth cohort (ref. 1950-1959)				
1960-1969	1.41***	1.13***	1.12***	1.13***
Age at union dissolution				
		0.94***	0.94***	0.94***
First union type (ref. marriage)				
cohabitation			1.07	0.96
Presence of children (ref. No)				
Yes				0.74***
Constant	0.0085***	0.072***	0.068***	0.073***
N (person months)	502428	502428	502428	502428
Log-likelihood	-21337.6	-21038.4	-21036.8	-21008.3
lrtest_chi2		598.30	3.22	57.00
lrtest_df		1	1	1
lrtest_p		0.0000	0.0730	0.0000

Exponentiated coefficients. Significance level: *p<0.05, **p<0.01, ***p<0.001.

Note: Women's experiences are censored at 2005. Category "marriage" encompasses women married directly and women whose first marital union was preceded by cohabitation.

The KHB user-written STATA command for the series of nested models suggests that rescaling does not affect the results presented in Table IV.5 (Appendix B 5).

Women's age at union dissolution

Since European countries differ considerably in the age at which women become exposed to repartnering, in Model 2 (Table IV.5) we analyse how the differences between countries change when age at first union dissolution is taken into account. First, the inclusion of age at separation (numerical variable) significantly improves the goodness of fit of the model (log-likelihood ratio test). Second, the age at union dissolution has a significantly negative effect on women's second union formation in Europe; for each year of age women's repartnering chances decrease by 6%.

Compositional differences in the age when women re-enter the partner market explain the variation in repartnering behaviour between France and the UK. In all other countries except Russia, the inclusion of women's age at union dissolution does not change the significance of country effect, and the direction of the statistically significant effects, in comparison to the reference category (France), remains the same; women in Belgium, the Netherlands and Norway have significantly higher risks of repartnering and women in Southern and most Eastern European countries significantly lower risks of repartnering than women in France. However, the magnitude of change in the country effect in comparison to Model 1 varies across Europe; in the Netherlands, Norway and Spain, the differences in repartnering, in comparison to France, become smaller once compositional differences in age at union dissolution are controlled for. For instance, after including age at union dissolution the odds ratios of repartnering in the Netherlands decrease by 14 percentage points in comparison to Model 1 (from 36% to 22% higher than in France). On the other hand, in Bulgaria and Russia, the inclusion of age at separation increases the differences to the reference category. Furthermore, the difference between women in Russia and France becomes significant once the compositional differences in the age at union dissolution are controlled for. Accounting for the fact that Russian women are younger when they re-enter the partner market than women in France (median age 27.8 and 31.0, respectively; Table 3), women in Russia have 19% lower risks of repartnering than French women.

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Hence, despite the differences in age patterns of union dissolution across Europe (Table IV.3), and its crucial role in women's repartnering chances (Table IV.4), the results from pooled models indicate that cross-national differences in repartnering observed in Figure 1, are only partially explained by the variation in women's age at union dissolution across Europe. The country effect, indeed, becomes insignificant for the UK, and in some countries the differences in odds ratios of repartnering become substantially smaller in comparison to France. However, in countries like Belgium, Estonia, Hungary, Italy, Lithuania, Poland and Romania, the inclusion of age at union dissolution into the model has almost no effect on the significance and the magnitude of the country effect in comparison to France.

First union type

In the next step, we analyse whether cross-national differences in repartnering are explained by the differences in the type of the dissolved first union in European countries. Model 3 in Table IV.5 shows that the inclusion of first union type does not significantly improve the fit of the model (log-likelihood ratio test $p=0.07$), and it seems that divorced women and those separated from their cohabiting first partner do not differ from each other in the second union formation risks. In addition, in some countries, the type of the dissolved first union changes only marginally the magnitude of the country effect (by 1-2 percentage points in comparison to the country effect in Model 2). Therefore, against our expectation the differences in the type of the dissolved first union across Europe do not explain the cross-national variation in repartnering.

Presence of children at union dissolution (motherhood status)

Finally, Model 4 in Table IV.5 tests whether the variation in repartnering behaviour across Europe is related to the compositional differences in the population at risk of repartnering in terms of the presence of children at union dissolution. The inclusion of motherhood status at first union dissolution increases the fit of the model and being a mother while re-entering the partner market decreases significantly the risk of second union formation by 26%.

The compositional differences in the presence of children at union dissolution explain the variation in repartnering behaviour between women in the Netherlands and France (ref.). However, in other countries, the inclusion of the presence of children into the model does not change the significance and the direction of the country effect in comparison to the reference category. The significant odds ratios indicate that in most countries the differences to France decrease only marginally if ever (by 1-2 percentage points in comparison to the country effect in Model 3) once motherhood status at first union dissolution is controlled for. Therefore, although countries differ in the percentage of women with children when they become at risk of repartnering, our results show that differences in the presence of children does not substantially contribute to explaining cross-national differences in second union formation in Europe.

To sum up, the results of the series of nested discrete-time hazard models show that differences in demographic characteristics of women exposed to repartnering explain the variation in second union formation in the Netherlands and the UK (in comparison to France). In general, the inclusion of women's age at dissolution, type of the dissolved first union and the presence of children in the model, decreases somewhat the differences in repartnering across Europe. However, the magnitude of the change in the odds ratios (from Model 1 to Model 4) varies across countries (in comparison to the ref.); while in Norway the risk of repartnering decreases from 31% higher to 18% higher than in France when women's demographic characteristics are controlled for, in other countries the changes in the country effects are only marginal. Across all nested models, the differences in the risks of repartnering between women in Estonia and Hungary, in comparison to France, were not significant. The KHB user-written STATA command for the series of nested models suggests that our results are robust to rescaling of the models (Appendix B 5). Among the discussed women's characteristics, differences in age at union dissolution contribute most to explaining the cross-national variation in repartnering (log-likelihood ratio test). Nevertheless, substantial country effects remain unexplained.

IV.5 Discussion

This study provides insights into the role of women's demographic characteristics in repartnering behaviour in Europe. We argue that the variation in first partnership across European countries, i.e. timing, type and stability, creates compositional differences in the population at risk of repartnering in terms of women's age and the presence of children at union dissolution. Demographic characteristics at separation have been identified in the literature as the main factors determining women's opportunities and constraints in the re-partner market (Beaujouan 2012, Lampard and Peggs 1999, Meggiolaro and Ongaro 2008, Poortman 2007, Skew et al. 2009, Wu and Schimmele 2005). In this paper, we hypothesise that the compositional differences in population at risk of repartnering in terms of women's age and children at dissolution are likely to explain cross-national variation in repartnering observed in Figure IV.1. We expand previous research by investigating second union formation of both previously cohabiting and married women in 14 European countries.

The study makes several important contributions to the research on repartnering dynamics. First, it clearly shows compositional differences in the population at risk of repartnering for women born in 1950-69 in Europe. The descriptive statistics indicate a substantial heterogeneity in the age at separation across Europe with the median age ranging from 26.6 in the UK to over 33 in Italy and Spain. Furthermore, although the majority of women who experienced first union dissolution in Europe were married to their first partner, the percentage of women who separated from a cohabiting first partner, among all women at risk of repartnering, varies from around 10% in most Eastern and Southern European countries to over 40% in France, the Netherlands, Norway and the UK. In all countries except the Netherlands, the majority of women who experienced first union dissolution are mothers. However, the percentage of childless women exposed to repartnering is much higher in Northern and Western Europe than in Eastern European countries. Looking at first union type, in all countries previously cohabiting women are considerably younger and more often childless than married women when they re-enter the partner market. The descriptive results confirm therefore our expectations regarding the differences in women's age and the presence of children at union dissolution by first union type.

Second, this study contributes to previous research on repartnering by examining the effect of individual demographic characteristics in 14 European countries of which many have not been studied before. The results show a universal negative effect of age at separation on women's repartnering chances in Europe. For example, the odds ratios of repartnering for women who dissolved their first union at age 35+ range from 42% lower in Hungary to 72% lower in Italy in comparison to women whose first union dissolved aged 25-30. These findings are in line with previous studies on Western societies (Beaujouan 2012, Ivanova et al. 2013, Jaschinski 2011, Meggiolaro and Ongaro 2008, Poortman 2007, Skew et al. 2009, Wu and Schimmele 2005). Hence, although age patterns of union dissolution vary considerable across the continent, age seems to reduce a woman's attractiveness to a potential partner (Beaujouan 2012, de Graaf and Kalmijn 2003, Ivanova et al. 2013) in a similar way in all European countries.

Third, in many countries mothers have significantly lower repartnering chances than childless women, and in countries where the effect of previous fertility is insignificant, mothers' odds ratios of repartnering are below one. The significant negative effect of the presence of children at union dissolution on repartnering is consistent with previous studies on the selected countries (Beaujouan 2012, de Graaf and Kalmijn 2003, Ivanova et al. 2013, Lampard and Peggs 1999, Poortman 2007, Skew et al. 2009). In countries where mothers and childless women do not differ in second union formation, the lack of significant differences may be explained by small sample size or model specification. In fact, some additional analyses confirm that a more refined description of women's fertility at union dissolution (number of children, age of the youngest child, or both variables combined in a compositional variable) increases the number of European countries with significantly negative effect of children at union dissolution on women's repartnering chances²⁸ (Appendix

²⁸ In Estonia, Italy, Romania and Spain the effect of previous fertility on second union formation remains insignificant regardless measurements of women's previous fertility. Again, in Romania and Spain the persistently insignificant effect of presence of children across models (Appendix B 6) may be due to small sample size. In Estonia, all models measuring previous fertility in different ways show only small differences in mothers' odds ratios in comparison to childless women suggesting that children at union

B 6). Therefore, we provide further evidence that although European countries differ in the presence of children at union dissolution and the effect of children on repartnering varies by age and number, in most countries, also in those not studied before, previous fertility does decrease women's attractiveness to a potential partner and restrict meeting and mating opportunities in the partner market (Beaujouan 2012, de Graaf and Kalmijn 2003, Ivanova 2013).

Furthermore, against our expectations, the type of the dissolved first union, i.e. whether it was marriage or cohabitation at the time of dissolution, does not matter for women's repartnering chances, once age at union dissolution and presence of children are controlled for. Note that this effect holds for the vast majority of European countries regardless of the percentage of women who dissolved their cohabiting first union among all women who separated from their first partner across countries. One may argue that our operationalization of the first union type variable is too crude and the effect would be different if we distinguished between directly married women and those whose marital first union was preceded by cohabitation. Numerous studies have examined the impact of premarital cohabitation on divorce risks (Jose et al. 2010, Kiernan 2002, Liefbroer and Dourleijn 2006, Stanley et al. 2010, Wagner and Weiß 2006), yet the differences in repartnering among women who had cohabited prior to first marriage and those who married directly have remained widely unexplored and existing findings are mixed (Wu and Schimmele 2005, Skew et al. 2009, Lampard and Peggs 1999, Poortman 2007). Indeed, additional descriptive statistics reveal striking cross-national variation in the type of the entry into dissolved first partnership; the percentage of women born in 1950-69 who married directly is particularly high in Eastern and Southern European countries (up to over 70%), while it does not exceed 40% in Western and Northern Europe (Appendix B 7). Nevertheless, further regression analyses taking into account the transition from cohabiting to marital first unions do not change considerably our findings regarding first

dissolution may indeed have no effect on second union formation (Wu and Schimmele 2005, McNamee and Raley 2011). In Italy, the insignificant effect of previous fertility on women's repartnering chances is somewhat surprising. However, previous research has shown that children effect varies substantially between North and South-centre Italy (Meggiolaro and Ongaro 2008). Hence, it may be that we do not detect the differences in repartnering between mothers and childless women simply because we analyse Italy as a whole.

union type (Appendix B 8); the effect of the type of first union on women's repartnering is in most countries, also in those with very strong marriage norms and presumably a stigma attached to divorce, insignificant. Therefore, despite cross-national differences in the population at risk of repartnering in terms of first union type, our results suggest that universally across Europe previously cohabiting and married women do not differ in their repartnering behaviour once their age and children at union dissolution are taken into account.

Finally, the results from pooled models of 14 European countries support only partially the hypothesis that compositional differences in the population at risk of repartnering explain the variation in second union formation across Europe. Only for the UK and the Netherlands does the country effect become insignificant, in comparison to France, once women's demographic characteristics at union dissolution are taken into account. In other countries, the inclusion of women's age and the presence of children at separation and the type of the dissolved first union decrease somewhat, even if in some countries only marginally, the cross-national differences in repartnering risks. However, substantial country effects remain unexplained. Hence, although European countries differ in the composition of the population at risk of repartnering and micro-level demographic characteristics are crucial in determining women's repartnering chances, macro-level context in which repartnering occurs may be even more important in explaining differences in second union formation across Europe.

Some limitations of this study need to be acknowledged. First, each of the surveys in the Harmonized Histories suffers from its own limitations such as response rates or missing information (for details, see Perelli-Harris et al. 2010). Second, retrospective data, in particular reporting of past cohabiting unions may be a subject to recall error or underreporting (Hayford and Morgan 2008, Teiler et al. 2006). Third, since not all surveys have collected data on men (e.g. Italy and Spain) and men give less reliable information regarding their fertility and partnership histories (Rendall et al. 1999), this study focuses only on women's second union formation. However, we recognise that men and women differ considerably in their repartnering behaviour, with men

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generally repartnering faster and to a greater extent (Beaujouan 2012, Ivanova et al. 2013, Wu and Schimmele 2005). Since the gender gap in repartnering is mainly attributed to parenthood status and presence of children in household (Beaujouan 2012, Bernhardt and Goldscheider 2002, Ivanova et al. 2013, Stewart 2003), and men have strong preferences to partner with younger women (England and McClintock 2009), the effects of men's demographic characteristics at union dissolution on second union formation may differ to those reported for women. Finally, although the Harmonized Histories represents different family patterns across Europe (Reher 1998, Sobotka and Toulemon 2008), the limited number of countries does not allow us to use multilevel modelling and control for contextual effects (Bryan and Jenkins 2013, StegmueLLer 2013).

Despite the limitations, by examining the role of micro-level demographic characteristics, this study provides important insights into repartnering dynamics in Europe. Although the composition of the population at risk of repartnering in terms of women's demographic characteristics varies across the continent, the effects of women's age and the presence of children at union dissolution and first union type on repartnering chances are similar in all 14 countries. This result is striking given that countries differ also in the socio-economic, institutional and cultural context in which repartnering occurs. In addition, since micro-level demographic determinants of repartnering only partially explain the differences in repartnering risks across Europe, the study points to the importance of country-specific analysis in repartnering research. For instance, partner market structure, cultural traditions and welfare policies to support single mothers and labour market regulations enhancing mother's employment may be crucial in explaining why women in one country have higher risks of repartnering than in others.

Nevertheless, since women's repartnering chances are likely to result from the interplay between women's need to repartner, attractiveness to a potential partner and opportunities they face when re-entering partner market (Becker 1991, de Graaf and Kalmijn 2003, Goldscheider and Waite 1986, Ivanova et al. 2013, Oppenheimer 1988), it may be that cross-national differences in repartnering behaviour are best explained by the interplay of women's individual characteristics and the contextual factors. Future

comparative research involving a larger number of countries and using multilevel approach should incorporate both micro- and macro-level perspectives in order to provide a comprehensive picture of repartnering dynamics across Europe.

V. The role of partnership context in mothers' continued childbearing after union dissolution in five European countries²⁹

Summary

This Chapter investigates one of the implications of repartnering, namely fertility after union dissolution. We focus on mothers' continued childbearing after union dissolution in five European countries where rates of partnership dissolution are high: Estonia, France, Norway, Russia, and the UK. Whereas some studies exist on fertility of re-partnered divorced women, less is known on childbearing after a non-marital union dissolution. This Chapter intends to fill this gap and provides first insights into the effect mothers' partnership history has on continued childbearing following dissolution of the first fertile union. We use "Harmonized Histories" and apply discrete time hazard models for five European countries separately. The findings indicate similar patterns and magnitudes of the analysed effects across Europe: Union type in which women entered motherhood does not matter for continued childbearing after separation. Current union status is significantly associated with mother's birth risks after dissolution of first fertile union. In comparison to currently married women, single mothers have the lowest risks of having an additional child after separation and currently cohabiting women have intermediate birth risks. The birth risk of currently married or currently cohabiting mothers do not depend on the type of the union in which women entered motherhood. The results indicate that despite increases of cohabitation, childbearing is still associated with marriage.

²⁹ The initial idea for this Chapter was developed for the final thesis in the European Doctoral School for Demography (EDSD) program. The author is grateful for the financial support received from the Max-Planck Institute for Demographic Research (MPIDR), Rostock, Germany, while participation in the EDSD. Since then the Chapter has undergone numerous substantial changes ranging from research questions through selection of the countries to the applied methods.

The earlier drafts of this Chapter were presented at the conference: (i) 'Changing families and fertility choices', Oslo, Norway, 6-7 June 2013, and poster presentations at (ii) the European Population Conference, Stockholm, Sweden, 13-16 June 2012 and (iii) Population Association of America Annual Meeting, San Francisco, United States, 3-5 May 2012.

V.1 Introduction

Family patterns in Europe have changed dramatically over the last four decades. In many countries fertility has declined below replacement level and unions have become less stable, ending more frequently in dissolution, i.e. divorce or separation. Since childbearing is strongly related to partnership history, increasing union instability may affect fertility. Divorce or separation often implies a disruption in childbearing career. Repartnering, on the other hand, poses a chance for realizing fertility intentions or a setting for unplanned pregnancy. In fact, numerous studies have shown that in Europe and the United States newly established unions often produce an additional child (Buber and Prskawetz 2000, Griffith et al. 1985, Holland and Thomson 2011, Thomson et al. 2002b, Vikat et al. 1999, Vikat et al. 2004, Wineberg 1990). More recently, some evidence has even suggested that a high desire for having a common child in higher order unions can diminish the negative effect of union dissolution on childbearing and result even in a similar completed fertility to that of individuals in persistent unions (Beaujouan and Solaz 2008, Meggiolaro and Ongaro 2010, Thomson et al. 2012, Van Bavel et al. 2012).

Many studies have been conducted on continued childbearing after union dissolution in the United States (Brown 2000, Griffith et al. 1985, Stewart 2002, Thomson 1997, Thomson and Li 2002, Thornton 1978, Wineberg 1990) but also increasingly in Europe (e.g. Beaujouan and Solaz 2008, Buber and Prskawetz 2000, Henz and Thomson 2005, Ivanova et al. 2014, Jefferies et al. 2000, Meggiolaro and Ongaro 2010, Thomson et al. 2002a, Vikat et al. 1999). A growing body of literature has investigated the impact of pre-union children, i.e. their number, co-residence and age (ibid) on stepfamily fertility. Generally, stepchildren reduce the risk of a shared child; however, empirical results are highly mixed and vary significantly across countries. This is particularly true for the effect of co-resident and non-resident children (e.g. Buber and Prskawetz 2000, Vikat et al. 1999, Vikat et al. 2004) and for the number of pre-union children (e.g. Bumpass 1984, Griffith et al. 1985, Wineberg 1990). Age of pre-union children, on the contrary, is claimed to have a clear negative

impact on childbearing in stepfamilies (e.g. Buber and Prskawetz 2000, Jefferies et al. 2000).

Previous research has primarily looked at fertility decisions following divorce (e.g. Brown 2000, Bumpass 1984, Griffith et al. 1985, Ivanova et al. 2014, Jefferies et al. 2000, Meggiolaro and Ongaro 2010, Thornton 1978, Wineberg 1990). However, with increasing prevalence of cohabitation and rise in non-marital childbearing to cohabiting couples in Europe and the US (Kennedy and Bumpass 2008, Kiernan 2001, Perelli-Harris et al. 2012), union dissolution among cohabiting mothers has become more common (Andersson 2002, Heuveline et al. 2003). A large body of literature has documented differences between cohabitation and marriage which in the event of union dissolution may have important implications for continued childbearing. For instance, cohabiting unions tend to be more unstable than marriage (Andersson 2002, Bramlett and Mosher 2002), have lower relationship quality and emotional investment (Wiik et al. 2009), and a weaker economic consolidation (Lyngstad et al. 2011). Furthermore, cohabiting and married women are likely to differ in their fertility behaviour (Musick 2002, Perelli-Harris 2014) and other individual characteristics such as educational gradient at first birth (Perelli-Harris et al. 2010), gender-role and family attitudes (Clarkberg et al. 1995) or subjective well-being (Soons and Kalmijn 2009). Therefore, women cohabiting at first birth may also show different continued childbearing behaviour after union dissolution than divorcees.

Up until now, continued childbearing among women who entered motherhood outside of marital union and formed new partnerships, has been explored mainly within the framework of multi-partnered fertility (Carlson and Furstenberg 2006, Guzzo and Furstenberg 2007b, Thomson et al. 2014). However, these studies rarely distinguish between union types but instead assign children to different fathers often without differentiating if the birth occurred within co-residential partnerships. Furthermore, research focusing on childbearing after a non-marital birth rarely discusses the differences in continued childbearing following a non-marital birth to unpartnered mothers and within cohabitation (Anderson and Low 2002, Bzostek et al. 2012, Graefe and Lichter 2007). In addition, to the best of our knowledge, no studies have

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specifically examined the interrelationship between union type at first birth and partnership status after dissolution and mothers' continued childbearing. Thus, it is still unknown whether women who entered motherhood in cohabitation and experienced union dissolution have a higher risk of giving birth to a shared child in cohabitation or marriage once they re-partner, and how their childbearing career differs from that of the re-married mothers.

This study intends to fill this gap by examining how the partnership status, i.e. married, cohabiting, or single, following the dissolution of the first fertile union, either marriage (both preceded by cohabitation and entered directly) or cohabitation which has not been transformed into marriage, shapes mothers' continued childbearing. Using a unique cross-national data set "Harmonized Histories" which contains cleaned, harmonized and highly comparable fertility and partnership histories (Perelli-Harris et al. 2010b), we move beyond existing literature by undertaking a study for five European countries.

V.2 Theoretical framework

Mothers' continued childbearing after union dissolution is often an outcome of two mechanisms: the repartnering process and fertility behaviour within stepfamily. Women who experienced union dissolution after entering motherhood re-enter the partner market and may eventually form new unions. Whether women remain lone mothers or repartner is crucial for continued childbearing as most children are born within partnerships (Jefferies et al. 2000, Meggiolaro and Ongaro 2010, van Bavel et al. 2012). Numerous studies have identified age and presence of children at union dissolution as the most important predictors of women's repartnering chances, with older mothers and those with young children in the household being less likely to form a new co-residential union (Chapter IV, Beaujouan 2012, Ivanova et al. 2013, Poortman 2007, Skew et al. 2009, Wu and Schimmele 2005).

Once in a new partnership, mothers' continued childbearing is likely to depend on a couple's desire to have a shared child, although we must consider unplanned pregnancies as well. Couples may decide to have a common child together for one or more of the following reasons (Griffith et al. 1985): (i) to

strengthen their relationship (union commitment effect), (ii) to become a parent if one of the partners is childless (parenthood effect), or (iii) to give the pre-union child(ren) a brother or a sister (sibling effect). Hence, a first shared child in repartnering is likely to have a unique value that exceeds the costs of rearing a larger number of children in household (e.g. Vikat et al. 1999, Thomson et al. 2002, Thomson 2004). Numerous empirical studies examining the commitment, parenthood and the sibling hypotheses have yielded mixed results to support each of the hypotheses (Chapter II.7, Buber and Prskawetz 2000, Holland and Thomson 2011, Ivanova et al. 2014, Jefferies et al. 2000, Thomson et al. 2002, Vikat et al. 1999). Nevertheless, irrespective of the motive for having a child in repartnering, around a half of new formed unions are likely to produce a child (Buber and Prskawetz 2000, Griffith et al. 1985, Holland and Thomson 2011, Thomson et al. 2002b, Vikat et al. 1999, 2004, Wineberg 1990).

A large body of literature has examined the determinants of childbearing after union dissolution in European countries (Chapter II.7). Across studies, women's age is consistently negatively associated with fertility behaviour (Beaujouan and Solaz 2013, Brown 2000, Meggiolaro and Ongaro 2010, Rindfuss and Bumpass 1977, Wineberg 1990). The effect of pre-union children is more complex and depends on numerous factors such as the measurement of women's fertility (number, age of the youngest child and co-residence of children), information available about partner (fertility and partnership history), analytical strategy (women's vs. couples' combined fertility) and the studied country (Buber and Prskawetz 2000, Griffith et al. 1985, Henz and Thomson 2005, Ivanova et al. 2014, Jefferies et al. 2000, Vikat et al. 1999, 2004, Thomson et al. 2002). Less attention has been paid to the role of women's partnership history in mother's continued childbearing after union dissolution. Earlier studies have mainly looked at childbearing following marital union dissolution within remarriage (Bumpass 1984, Griffith et al. 1985, Rindfuss and Bumpass 1977, Thornton 1978, Wineberg 1990). With increasing prevalence of non-marital co-residential unions, a growing body of literature has started to include post-marital cohabitation as a repartnering form in which childbearing may also take place (Brown 2000, Ivanova et al. 2014,

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Meggiolaro and Ongaro 2010). However, little is known about mothers' continued childbearing after dissolution of cohabiting unions as studies investigating women's fertility trajectories after a non-marital birth usually do not differentiate births to unpartnered from those to cohabiting mothers (Guzzo and Furstenberg 2007b, Lillard et al. 1999).

This study argues that women's continued childbearing may also depend on the type of the union in which women entered motherhood and the partnership context following union dissolution. Previous studies have demonstrated differences between cohabitators - particularly without marriage plans, and the married couples. Some evidence has shown that cohabiting unions are more likely to be a short-term commitment with a lower relationship quality and emotional investment (Brown and Booth 1996, Wiik et al. 2009, Wiik et al. 2012). Cohabiting couples also less often pool their income (Lyngstad et al. 2011) and are more likely to have more egalitarian division of labour in a household than married couples (Bianchi et al. 2014). Furthermore, cohabitators differ from their married counterparts in various individual characteristics, such as educational gradient at first birth (Perelli-Harris et al. 2010c), gender-role and family attitudes (Clarkberg et al. 1995) and subjective well-being (Soons and Kalmijn 2009). Although, having children indicates commitment and investment in both marital and cohabiting relationships, some differences between cohabitation and marriage persist. For instance, cohabiting couples with children continue to have higher dissolution risks (Andersson 2002, Heuveline et al. 2003, Toulemon 1995), have more often unintended pregnancies (Guzzo and Hayford 2012, Musick 2002), and lower second birth rates (Perelli-Harris 2014). In addition, despite the increasing prevalence and institutionalisation grade of non-marital unions, in most countries, cohabitation remains less legally regulated than marriage (Perelli-Harris and Sánchez Gassen 2012). Taken together, these differences between cohabitation and marriage - in the context of first fertile union and family arrangement in repartnering, may play an important role in mothers' continued childbearing after union dissolution.

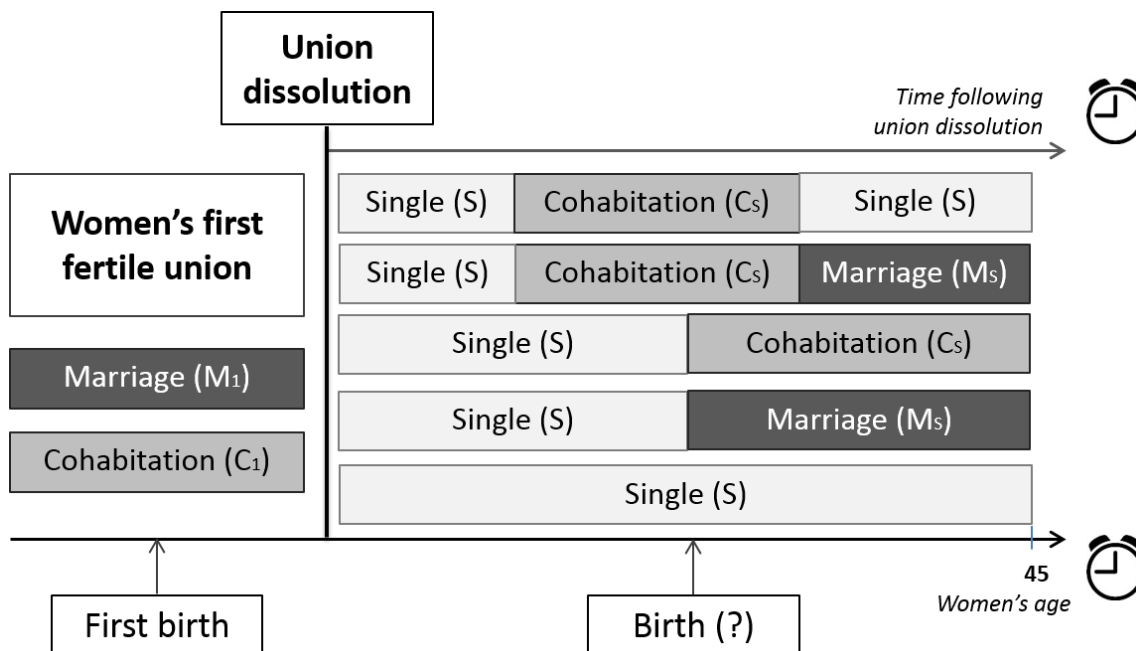
V.3 Conceptual framework and research hypotheses

In order to test the effect of partnership history on mothers' birth risks after union dissolution, the study is conceptualized as follows (Figure V.1). We start the analysis with looking at the first "fertile" unions, i.e. partnerships where women entered motherhood, which subsequently dissolved. By looking at first fertile unions, we exclude all women who had their first child outside the partnership. For many women first fertile union is the first partnership. For some, however, it may be a second or higher order union. The first fertile union can be a cohabiting union which had not been transformed into marriage before separation (C_1) or a marital union (M_1). For the purpose of the study, the type of the first fertile union at the end of the partnership is considered. Therefore, women who had first birth in cohabitation and subsequently transformed their union into marriage are assigned into "marriage" category (M_1). This decision is motivated by the fact that many cohabitators marry around first birth (Perelli-Harris et al. 2012), and because marriage and childbearing may be jointly planned but birth simply occurred first (Musick 2007). In this case, women who entered motherhood in premarital cohabitation and those married at first birth are assumed to show similar childbearing behaviour following divorce. The conceptual framework implies also that if first birth occurred in marriage, women married directly are not distinguished from those cohabiting prior to marriage.

Partnership context at first birth

Women who have a first birth within cohabitation might be select in terms of their fecundability and/or lack of use of contraception. Past research suggests that first births which occur to cohabiting women are more likely to be unplanned than births to married women (Guzzo and Hayford 2012, Musick 2002) and having a first birth within cohabitation may be a proxy for less efficient contraceptive use. In fact, unintended pregnancies do not only elevate the risk of union dissolution (Guzzo and Hayford 2012, Wu and Musick 2008) but are also associated with multi-partner fertility (Guzzo and Furstenberg 2007). In addition, women whose first birth was unplanned have been also

Figure V.1: Conceptual framework



Note: Author's presentation.

shown to have higher risks of subsequent unintended births (Guzzo and Hayford 2011). Therefore, assuming that first births in cohabitation are less often planned, separated mothers who experienced union dissolution are more likely to have a subsequent birth (presumably also unintended) after union dissolution than women married at first birth.

In addition, women who entered motherhood in cohabitation are likely to be selective of individuals with less traditional attitudes towards family and childbearing context than women who were married at first birth (Clarkberg et al. 1995). Having the first child in a cohabiting union which has not been transformed into marriage may be indicative of less socially constrained attitudes (Lesthaeghe 1995). Therefore, it may be that separated mothers whose first fertile union was cohabitation have generally a higher propensity for a non-traditional family behaviour such as creating stepfamilies and multi-partner fertility. At this same time, women with more traditional values who perceived marriage as a lifelong commitment and who divorced may be less willing to engage into a new relationship and continue their childbearing. Therefore, once experiencing union dissolution previously cohabiting mothers

may have higher likelihood and a quicker subsequent birth than mothers whose first fertile union was marriage.

These arguments would lead us to expect that:

H1: Previously cohabiting women will have higher risks of having an additional child after union dissolution than previously married mothers.

Current union status

After experiencing the dissolution of the union in which the first child was born, mothers are single (S) and become at risk of repartnering (Figure V.1). Over time, women may enter a new cohabiting union (C_s), marry (M_s) - either directly or after a period of premarital cohabitation, or continue being unpartnered. They may also have subsequent cohabiting or marital unions with short periods of being single in between.

Since childbearing and partnership status are closely interrelated and the frequency of sexual intercourse is lower among single women, the risk of a subsequent birth is likely to be higher for mothers who repartnered. The risk of having a subsequent child is also likely to depend on the type of the new co-residential union, i.e. marriage or cohabitation. Despite the increase in the prevalence and the acceptance of cohabitation, in many countries marriage has remained the normative setting for childbearing, meaning that couples form a marital union once they decide to have children (Perelli-Harris et al. 2014). Along with this argument, particularly in countries with strong marriage norms (Russia), some couples may decide to legitimize their union on the onset of the pregnancy which results in higher birth rates within marriage. Moreover, although countries differ in the degree to which cohabitation is legally recognised, marriage is still more legally protected than cohabiting unions (Perelli-Harris and Sánchez Gassen 2012). Altogether, we expect that:

H2: The risk of having a subsequent child after union dissolution will be highest for currently married women, intermediate for those currently cohabiting and the lowest for unpartnered women.

Partnership history

Finally, we argue that the impact of current partnership status on the risk of having a child differs according to partnership history, i.e. the type of the union in which women entered motherhood. If those who had their first child within a marital union are selective of being more traditional, we might expect the association between current marriage and the likelihood of a birth to be greater among this group (M_1 - M_5) than among those who entered motherhood in cohabitation (C_1 - M_5). Those who had their first child outside of marriage may be more willing to have another child outside of formal marriage (C_1 - C_5). Currently cohabiting women who gave first birth in marriage after experiencing divorce (M_1 - C_5) may be more cautious about committing to the new partner, and hence are likely to have lower birth risks than women who entered motherhood in cohabitation (C_1 - C_5). Therefore, we expect that:

H3: The association between being currently married or cohabiting and the likelihood of subsequent childbearing will differ according to partnership history, in particular:

H3a: The positive effect of being currently married on the likelihood of having a birth will be weaker for those whose first birth took place within cohabitation, as compared to those who had their first birth within marriage.

H3b: The negative effect of being currently cohabiting on the likelihood of having a birth will be weaker for women who entered motherhood in cohabitation than for those who were married at first birth.

V.4 Data and method

The Harmonized Histories are used to investigate the role of partnership context on women's fertility decisions after divorce or separation in cross-national comparison (Perelli-Harris et al. 2010a). This study uses retrospective fertility and partnership histories of women from five countries: Estonia, France, Norway, Russia, and the UK. Other countries in the Harmonized Histories are excluded from analyses due to the small sample size (Belgium) or its composition, i.e. very young women (Austria) or because of the relatively low prevalence of union dissolutions and first births within cohabitation (Lithuania, Poland, Romania, and Spain).

In this study, continued childbearing after union dissolution is analyzed from the women's perspective as most children of divorced or separated couples traditionally stay with their mothers. The analyses are restricted to women born 1940-74 who entered motherhood within partnership (marriage or cohabitation) and experienced dissolution of the first fertile union before age 40. Since the surveys were conducted in different years, the analyses are limited to calendar period prior to 2005 in order to assure the same exposure time. Due to biological limits on women's fertility, separated mothers are followed only until the age of 45. Since widowed and separated women are likely to differ in their repartnering behaviour (Wu and Schimmele 2005), and widows are usually substantially older when re-enter the partner market which *per se* implies reduced fecundity, we exclude all women whose partner died after the first birth. The union is defined by co-residence and it starts with the month in which a respondent moved into a joint household with the partner. Women who reported to enter a co-residential union before age 16 are excluded from the analytical sample. In the very rare cases when women had entered marital union before starting to live with their spouse, the date of marriage is set as the beginning of the partnership. Marital dissolution is defined either by divorce or separation, depending on which event occurred first. Women who reported the same month of separation and start of the next union are omitted. Furthermore, in additional data cleaning cases with illogical partnership histories, e.g. marriage ended without beginning or second union started but first has not finished, were removed from the sample as well.

Children are assigned to a union based on their birth dates. We look only at biological birth as the data does not provide any information on the birth dates of adopted or stepchildren. Women with twins and those who entered motherhood before age of 15 are excluded from the analyses. However, cases are included where first conception occurred before moving together with a partner but the delivery was within the union. Finally,

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observations are excluded with missing information on women's education³⁰, union begin (year), marriage begin (year), separation date (year) and children's birth year. Altogether, the final analytical samples of mothers who experienced union dissolution by age 40 varies from 395 women in France to 756 in Russia (Table V.I).

Method

The overall impact of partnership context on childbearing after union dissolution is estimated using the discrete-time event-hazard models (Allison 1982, Yamaguchi 1991) for each country separately. These kind of models have been widely used in similar studies on continued childbearing after union dissolution (e.g. Brown 2000, Ivanova et al. 2014, Jefferies et al. 2000) and are defined as follows:

$$\log\left(\frac{P_{it}}{1 - P_{it}}\right) = \alpha_t + \beta_1 x_{it1} + \dots + \beta_k x_{itk}$$

where P_{it} denotes the conditional probability that woman i experiences birth after union dissolution in the month t given that this event has not occurred yet. The left side of the equation describes the logit (log-odds) of P_{it} and the right side is a linear function of a set of covariates k and the set of constants for each time point α_t . The results are presented using exponentials of the regression coefficients β and interpreted as odds ratios.

The process time starts nine months after dissolution of a union in which the first child was born (first fertile union). The start of the "clock" is delayed in order to assure that the birth following dissolution of the union in which women entered motherhood is not to the previous partner. The process time ends with a birth after separation or by censoring, i.e. 15 years after union dissolution, when women turn 45, in the month and year of interview (depends on survey), or in January 2005.

³⁰ Fewer than 6% of mothers who experienced dissolution of first fertile union by age 40 in Russia and the UK have missing information on educational achievement. No missing values regarding education have been reported for other countries.

Dependent variable

The dependent variable is the log-odds of a birth following dissolution of the first fertile union. It is debatable whether the moment of conception or the actual birth is a better event to study the impact of union status on fertility decision. On the one hand, focusing on conception of a common child allows us to control for a possible reverse causality between fertility and union type (Buber and Prskawetz 2000). This is problematic especially in countries where a high proportion of couples legitimize their pregnancies by marrying shortly before the birth (“shotgun marriages”). On the other hand, pregnant women have at least nine months to decide in what type of a union their child is going to be born, or childbearing and marriage may be jointly planned, in which cases the birth might better reflect the personal preferences for a certain living arrangement. Thus, this study analyses the month of *birth* of the child following union dissolution. Our decision is also supported by the fact that the official statistics usually report union type at the time of actual delivery without being backdated by nine months. Also, we are not *per se* interested in establishing a causal relationship between the union status and fertility after union dissolution, but rather in providing information on the partnership context for continued childbearing. Note, however, that since the surveys do not contain any information about abortion or miscarriages, only live births are reported.

Independent variables

The two key explanatory variables in this study are (i) the union type of the first fertile union and (ii) the partnership status after union dissolution (Figure V.1.). *Union type of the first fertile union* is divided into categories “marriage” (M_1) or “cohabitation” (C_1). As mentioned before, women who were cohabiting at first birth and married subsequently are assigned into “marriage” category. The person-months included in the analysis for women who transformed their unions from cohabitation to marriage after first birth does not account for more than 5% in Estonia, France, Russia, and the UK. Only in Norway 13% of analyzed person-months are assigned to women who entered motherhood in cohabitation and subsequently marry (Table V.1). The vast majority of women

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in the analytical samples entered motherhood in first partnerships with less than 7% of women having their first child in second order unions (Appendix C1).

Current union status is a time varying covariate with categories “currently single” (S), “currently cohabiting” (C_2) and “currently married” (M_2). Women may repartner by direct marriage, marriage preceded by cohabitation or remain cohabiting. In the analytical samples, every second women in Estonia and four out of 10 women in the remaining countries repartnered after dissolution of the first fertile union (Appendix C2). In addition, some women may have more than one partner after dissolution of the first fertile union in which case their status between the repartnered unions is defined as single. However, in the studied countries, less than 5% of women who entered motherhood in the first union have more than two partners after separation (Appendix C2). For both variables defining partnership history “marriage” is the reference category.

Characteristics of children at union dissolution. Previous fertility has been shown to affect women’s childbearing after union dissolution (e.g. Buber and Prskawetz 2000, Griffith et al. 1985, Ivanova et al. 2014, Jefferies et al. 2000, Stewart 2002, Vikat et al. 1999, Thomson et al. 2002, Thomson 2004). Stepchildren are believed to have a negative effect on continued childbearing in repartnering as they increase the costs of raising a larger family (Thomson 2004, Vikat et al. 2004). However, empirical evidence is mixed and varies by country, parity and the analytical strategy (whether mothers’ or couple’s combined fertility is considered) (Brown 2000, Buber and Prskawetz 2000, Griffith et al. 1985, Jefferies et al. 2000, Vikat et al. 1999, 2004). In addition, some studies have suggested that the age of the youngest child may be similarly if not more important for childbearing after union dissolution than the number of stepchildren (Holland and Thomson 2011, Ivanova et al. 2013, Jefferies et al. 2000). Mothers may have preferences for the spacing of births, e.g. two to three years apart (Holland and Thomson 2011), because the new born child is likely to have a stronger sibling value for the child from the previous relationship if the latter is still young (Bernstein 1997). Furthermore, some mothers may want to opt for shorter birth intervals in order to reduce the negative consequences of childrearing on employment and career prospects (Jefferies et al. 2000). Empirical studies have consistently shown that

mothers' risk of having another child in repartnering decreases with the age of the youngest child (Buber and Prskawetz 2000, Holland and Thomson 2011, Ivanova et al. 2014, Jefferies et al. 2000).

Since this study focuses on continued childbearing among mothers, we include age of the youngest child, as opposed to the number of children at union dissolution, as the measurement of previous fertility (Ivanova et al. 2014). Our decision is supported by additional checks using likelihood ratio tests which have shown that in most countries, models including age of the youngest child have higher explanatory powers than models with number of children at union dissolution (Appendix C3). The age of the youngest child at separation is grouped into "younger than 3 years" (ref.), "3 to 6 years" and "older than 6 years".

Women's age at union dissolution. Previous studies have consistently found a negative association between women's age and fertility after union dissolution. On the one hand, age at union dissolution determines women's chances in the re-partner market (Beaujouan 2012, de Graaf and Kalmijn 2003, Ivanova et al. 2013). On the other hand, it defines the time left for continued childbearing after separation (Beaujouan and Solaz 2013, Brown 2000, Meggiolaro and Ongaro 2010, Rindfuss and Bumpass 1977, Wineberg 1990). Hence, we include categorical variable women's age at union dissolution with four categories: "younger than 25", "aged 25-29" (ref.), "aged 30-34" and "older than 35" (but per definition not older than 45).

Women's highest level of education. A large body of literature has shown the effect of women's education on higher order births in general (e.g. Galezewska 2012, Klesment and Puur 2010, Köppen 2006, Perelli-Harris 2008) and within repartnering (e.g. Brown 2000, Beaujouan and Solaz 2013, Ivanova et al. 2014, Jefferies et al. 2000). Therefore, although the results are mixed, depending on the country, we control for the mother's highest level of education. The education variable is constructed based on International Standard Classification of Education (ISCED 1997) and grouped into three categories: low, medium (ref.) and high (for more information see Perelli-Harris et al. 2010b).

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Duration since dissolution of the first fertile union. Numerous studies have shown that the risk of childbearing decreases with duration since union dissolution (Jefferies et al. 2000, Meggiolaro and Ongaro 2010). Therefore, a categorical variable is included in the models which groups months into years and specifies the duration since dissolution of first fertile union as follow: “9 months to 2 years”, “2 to under 3 years” (ref.), “3 to under 4 years”, “4 to under 5 years”, “5 to under 7 years”, “7 to under 9 years”, “9 to under 12 years” and “12 to under 15 years”. The length of the intervals was chosen in order to assure relatively equal distribution of person-months in each category.

Description of the samples

Table V.1 show the samples and the distribution of observations among the independent variables by country. The time-constant variables are described by presenting the number of women in a given category (third column for each country) and the time-varying covariates by using person-months (first column for each country). In all countries, the vast majority of women who experienced dissolution of the first fertile union were married. However, the percentage of women who were cohabiting at first birth and afterwards varies from 8.5% in Russia to around a third of all separated mothers in France. Women spent the majority of person-months in the single state (around 70%), followed by cohabitation (around 20%, except Russia and the UK with less than 15%) and marriage. However, the percentage of person-months of currently married women is substantially lower in France and Norway (around 7%) than in other countries for which the figures are almost twice as high. Women in the two Eastern European countries are substantially younger at dissolution of the first fertile union (Mean=28.5) than women in the remaining countries (Mean>30). Furthermore, the vast majority of women in Estonia and Russia have only one child at union dissolution (60% and 76%, respectively), while over 60% of women in the UK are mothers of two or more children at separation. However, countries do not differ much in the distribution of the age of the youngest child at union dissolution, with around 40% of all mothers having a child younger than 3 years at separation. Somewhat surprisingly, in most countries, separated mothers were high or medium educated. In all countries except France, low educated women are the minority in the analytical sample.

Table V.1: Description of the analytical sample by country. Women born in 1940-74 who experienced dissolution of first fertile union by age 40

Variable	Estonia			France			Norway			Russia			The UK		
	Person-months (in %)	Births (in %)	Women (in %)	Person-months (in %)	Births (in %)	Women (in %)	Person-months (in %)	Births (in %)	Women (in %)	Person-months (in %)	Births (in %)	Women (in %)	Person-months (in %)	Births (in %)	Women (in %)
Duration since union dissolution															
9 months to under 2 years	14.5	14.5	-	15.7	13.6	-	16.3	8.9	-	14.3	7.4	-	15.3	15.0	-
2 to under 3 years	11.6	13.2	-	12.5	13.6	-	13.1	11.0	-	11.6	19.0	-	12.4	13.3	-
3 to under 4 years	10.8	13.6	-	11.3	13.6	-	11.9	19.4	-	10.7	13.0	-	11.4	18.3	-
4 to under 5 years	9.9	11.5	-	10.3	18.2	-	10.8	15.7	-	9.9	12.5	-	10.3	13.3	-
5 to under 7 years	16.9	19.6	-	17.4	20.5	-	16.9	20.4	-	17.0	21.3	-	17.3	17.5	-
7 to under 9 years	13.0	14.9	-	12.9	11.4	-	12.2	14.7	-	13.3	14.8	-	12.8	10.0	-
9 to under 12 years	14.3	9.4	-	13.0	5.7	-	11.9	8.4	-	14.2	8.8	-	13.0	8.3	-
12 to under 15 years	8.9	3.4	-	6.9	3.4	-	6.9	1.6	-	9.1	3.2	-	7.4	4.2	-
Type of the first fertile union															
Cohabitation	14.0	17.9	15.6	27.3	35.2	32.4	22.5	31.9	26.7	7.5	9.7	8.5	10.8	20.0	11.8
Marriage	86.0	82.1	84.4	72.7	64.8	67.6	77.5	68.1	73.3	92.5	90.3	91.5	89.2	80.0	88.2
<i>of which marriage after first birth within cohabitation</i>	5.1	6.0	5.5	5.4	9.1	6.3	11.3	11.0	13.1	3.6	4.6	4.2	3.4	5.0	4.4
Current union status															
Currently single	66.1	12.8	-	71.6	23.9	-	70.5	22.0	-	77.4	10.2	-	72.7	30.8	-
Currently cohabiting	19.7	40.4	-	21.0	46.6	-	21.7	49.2	-	12.4	25.5	-	14.9	32.5	-
Currently married	14.3	46.8	-	7.4	29.5	-	7.7	28.8	-	10.3	64.4	-	12.4	36.7	-
Total number	61,968	235	659	34,439	88	395	50,341	191	603	72,863	216	756	38,402	120	431

(continue)

Table V.1: Description of the analytical sample by country. Women born in 1940-74 who experienced dissolution of first fertile union by age 40 (continued)

Variable	Estonia			France			Norway			Russia			The UK		
	Person-months (in %)	Births (in %)	Women (in %)	Person-months (in %)	Births (in %)	Women (in %)	Person-months (in %)	Births (in %)	Women (in %)	Person-months (in %)	Births (in %)	Women (in %)	Person-months (in %)	Births (in %)	Women (in %)
Mother's age at union dissolution															
Age under 25	28.2	48.9	28.5	14.6	29.5	12.2	21.9	39.8	19.6	31.3	56.5	30.3	21.0	44.2	20.2
Age 25-29	37.1	40.0	34.6	28.4	37.5	26.1	32.2	37.7	28.9	34.0	31.9	31.6	30.8	37.5	26.7
Age 30-34	24.9	10.2	22.5	37.8	29.5	35.4	27.8	18.8	27.2	23.4	10.2	21.8	31.0	14.2	28.5
Age 35-40	9.7	0.9	14.4	19.3	3.4	26.3	18.2	3.7	24.4	11.4	1.4	16.3	17.2	4.2	24.6
Mean (SD)	Mean=28.5, SD=5.22			Mean=31.2, SD=4.96			Mean=30.4, SD=5.42			Mean=28.5, SD=5.43			Mean=30.3, SD=5.6		
Age of the youngest child at union dissolution															
Child under 3	39.3	56.6	38.2	38.8	55.7	36.2	43.0	60.7	42.6	41.9	59.7	40.1	41.7	54.2	37.6
Child aged 3-5	31.5	32.8	30.3	29.1	26.1	29.1	28.1	26.2	26.7	30.2	29.6	28.3	29.8	32.5	29.9
Child aged 6+	29.2	10.6	31.4	32.1	18.2	34.7	28.9	13.1	30.7	27.9	10.6	31.6	28.5	13.3	32.5
Mother's highest level of education															
High	34.0	23.8	32.0	20.9	13.6	22.0	31.9	27.7	31.7	48.5	47.2	48.7	43.3	35.0	42.2
Medium	53.4	58.7	55.1	43.9	43.2	44.8	45.6	48.2	46.6	44.8	44.0	45.2	32.6	41.7	35.7
Low	12.5	17.4	12.9	35.3	43.2	33.2	22.5	24.1	21.7	6.7	8.8	6.1	24.1	23.3	22.0
Total number	61,968	235	659	34,439	88	395	50,341	191	603	72,863	216	756	38,402	120	431

Note: Women's experiences are censored after 15 years following dissolution of the first fertile union, at age 45 and in year 2005.

V.5 Results

V.5.1 Descriptive statistics

Life-table estimates show that approximately 4 out of 10 mothers in Estonia and Norway and around one third of women in the remaining countries have an additional child within 15 years after dissolution of first fertile union (Appendix C2). Table V.1 (second column for each country) shows the distribution of births after separation in each category for all explanatory variables. Half of all births happens within the first five years after separation. Most births following dissolution of first fertile union occur within partnership. In Russia the majority of births (64%) are to currently married mothers, while in France and Norway mainly to currently cohabiting women, although births to currently married women constitute around one third of all births following separation. In Estonia and the UK, on the other hand, births are relatively evenly distributed among currently married and cohabiting mothers. We find some differences in the distribution of births to currently single women across studied countries; while in Estonia and Russia less than 13% of all births occurred to single mothers, this figure is substantially higher in the UK (31%). In all countries, the vast majority of mothers who have an additional child after separation entered motherhood within marriage. This is likely to be due to the composition of the samples which consists largely of women married at first birth. Nevertheless, additional analysis using the Kaplan-Meier estimator show that in most countries women cohabiting at first birth and afterwards have somewhat higher transition rates to the birth after separation than women married at the entry into motherhood (Appendix C4). However, the log-rank tests suggest that, with the exception of Norway and the UK, the differences in continued childbearing by the type of first fertile union are not significant.

Table V.1 also indicates that most births occur to women who experienced union dissolution aged under 30, although figures vary from 67% in France to almost 90% in Estonia and Russia. Not surprisingly, only a marginal percentage of all births (less than 5%) occur to women who dissolved their first fertile union after age 35. In all countries more than half of all births

occur to women whose youngest child was aged under 3 at separation. Finally, most women who have a birth after the dissolution of first fertile union are middle educated and only in France births to low educated women are similarly common (around 40% of all births).

V.5.2 Multivariate analyses

The effect of previous and subsequent union type on women's continued childbearing after union dissolution

First, we examine whether women cohabiting at first birth and afterwards have higher risks of having a subsequent child after separation in comparison to married women (Hypothesis 1). Table V.2 (Model 1) shows odds ratios for each country separately. Except France, in all studied countries the odds ratios are reasonably close to 1, suggesting that the type of union in which women had a first birth does not matter for continued childbearing after union dissolution. In France, women who entered motherhood in cohabitation and did not transform their unions into marriage have a 91% higher risk of having an additional child after union dissolution than women married at first birth.

Note that while examining the role of first partnership on continued childbearing after union dissolution, women who entered motherhood in cohabitation and subsequently married their partner were assigned into the married category. Our decision was motivated by the fact that marriage and childbearing may be jointly planned but the birth just occurred first. However, it may be that some couples who had a birth within cohabitation had not initially intended to marry and did it only for practical reasons, for instance because of bureaucratic obstacles related to establishing paternity, joint custody or family name, or to benefit from legal advantages favouring marriage (Perelli-Harris and Sánchez Gassen 2012). Therefore, they could be different to women who entered motherhood in marriage. Unfortunately, the small number of women who had first birth in cohabitation and subsequently married their partner does not allow us to perform analysis which controls for changes in the union type after birth in all countries except Norway (Table V.1). Nevertheless, the results for Norway do not change the conclusion that first union type does not affect mothers' childbearing after union dissolution (Appendix C5). However, by this same token, one may also argue that women

who had their first birth in cohabitation prior to marriage, may more resemble women whose entire first fertile union was cohabitation than women who first married and then started childbearing. We test this assumption in an additional analysis where union type is measured at the moment of first birth, i.e. women cohabiting at first birth and subsequently married are assigned into cohabiting category (Appendix C6). Again, except France, our results indicate that the first union type has no effect on continued childbearing. Hence, irrespectively of how the type of a union in which women entered motherhood is operationalised, it seems that being married or cohabiting in the first fertile union does not matter for mothers' continued childbearing after separation. Therefore, Hypothesis 1 cannot be confirmed for most countries.

In Hypothesis 2, we expected that the risks of having an additional child after separation are highest for currently married women, intermediate for currently cohabiting women and the lowest for single women. The results suggest that subsequent union status is indeed significantly associated with women's fertility after union dissolution (Table V.2, Model 1). As hypothesised, in all countries repartnering is crucial for continued childbearing following separation or divorce. In all countries, in comparison to currently married women (ref.), single mothers have the lowest risks of having an additional child after separation and currently cohabiting women have an intermediate risk. The birth risks of currently single mothers are very small and range from 2% in Russia up to 12% in the UK of that of the currently married women. For currently cohabiting mothers, the odds ratios varies from 38% lower in the UK to 69% lower in Russia as compared to the reference category. The results confirm Hypothesis 2 for all studied countries and indicate that marriage to the next partner is important for continued childbearing, even in contexts where cohabitation and childbearing within non-marital unions are more common (France and Norway).

Table V.2: Odds ratios from discrete-time hazard models of continued childbearing after union dissolution

	Estonia				France				Norway				Russia				United Kingdom			
	Model 1		Model 2		Model 1		Model 2		Model 1		Model 2		Model 1		Model 2		Model 1		Model 2	
	OR	SE	OR	SE	OR	SE	OR	SE	OR	SE	OR	SE	OR	SE	OR	SE	OR	SE	OR	SE
Duration since union dissolution (ref. 2 to under 3 years)																				
9 months to under 2 years	1.16	(0.29)	1.16	(0.29)	1.11	(0.46)	1.08	(0.45)	0.92	(0.30)	0.93	(0.31)	0.47*	(0.14)	0.47*	(0.14)	1.18	(0.41)	1.18	(0.41)
3 to under 4 years	0.96	(0.24)	0.96	(0.24)	0.96	(0.40)	0.97	(0.40)	1.71	(0.47)	1.71	(0.47)	0.67	(0.17)	0.67	(0.17)	1.31	(0.43)	1.29	(0.43)
4 to under 5 years	0.78	(0.21)	0.78	(0.21)	1.42	(0.55)	1.44	(0.56)	1.41	(0.41)	1.41	(0.41)	0.62	(0.16)	0.62	(0.16)	1.03	(0.37)	1.00	(0.36)
5 to under 7 years	0.75	(0.18)	0.76	(0.18)	0.85	(0.32)	0.85	(0.32)	0.94	(0.26)	0.95	(0.26)	0.53**	(0.12)	0.52**	(0.12)	0.69	(0.23)	0.66	(0.22)
7 to under 9 years	0.69	(0.17)	0.69	(0.17)	0.52	(0.23)	0.52	(0.23)	0.75	(0.22)	0.75	(0.22)	0.43***	(0.10)	0.43***	(0.10)	0.44*	(0.17)	0.41*	(0.16)
9 to under 12 years	0.34***	(0.10)	0.34***	(0.09)	0.21**	(0.11)	0.20**	(0.11)	0.39**	(0.13)	0.40**	(0.14)	0.22***	(0.06)	0.22***	(0.06)	0.30**	(0.13)	0.29**	(0.12)
12 to under 15 years	0.15***	(0.06)	0.15***	(0.06)	0.18**	(0.12)	0.19*	(0.13)	0.10***	(0.06)	0.10***	(0.06)	0.11***	(0.04)	0.11***	(0.04)	0.22**	(0.12)	0.22**	(0.11)
Union status at first birth (ref. married at first birth)																				
Cohabiting at first birth and afterwards	1.13	(0.20)	1.44	(0.43)	1.91**	(0.45)	4.06**	(1.79)	1.26	(0.21)	1.59	(0.51)	1.07	(0.26)	1.18	(0.36)	1.15	(0.28)	1.00	(0.43)
Current union status (ref. currently married)																				
Currently singly	0.04***	(0.01)	0.05***	(0.01)	0.05***	(0.02)	0.08***	(0.03)	0.06***	(0.01)	0.08***	(0.02)	0.02***	(0.00)	0.02***	(0.00)	0.12***	(0.03)	0.13***	(0.04)
Currently cohabiting	0.47***	(0.07)	0.50***	(0.08)	0.44**	(0.11)	0.57	(0.18)	0.42***	(0.08)	0.43***	(0.09)	0.31***	(0.05)	0.33***	(0.06)	0.62*	(0.14)	0.52*	(0.14)
Cohabiting at first birth x Currently single																				
			0.73	(0.40)			0.34	(0.21)			0.55	(0.26)			1.78	(1.12)			0.58	(0.39)
Cohabiting at first birth x Currently cohabiting																				
			0.69	(0.27)			0.39	(0.21)			0.83	(0.32)			0.50	(0.30)			1.95	(1.08)

(continue)

Table V.3: Odds ratios from discrete-time hazard models of continued childbearing after union dissolution (continued)

	Estonia				France				Norway				Russia				United Kingdom			
	Model 1		Model 2		Model 1		Model 2		Model 1		Model 2		Model 1		Model 2		Model 1		Model 2	
	OR	SE	OR	SE	OR	SE	OR	SE	OR	SE	OR	SE	OR	SE	OR	SE	OR	SE	OR	SE
Mother's age at union dissolution (ref. 25-29)																				
Age under 25	1.05	(0.16)	1.04	(0.16)	1.07	(0.30)	1.01	(0.28)	1.37	(0.23)	1.37	(0.24)	1.01	(0.17)	1.01	(0.17)	1.29	(0.30)	1.25	(0.29)
Age 30-34	0.44**	(0.11)	0.44**	(0.11)	0.52*	(0.15)	0.51*	(0.15)	0.60*	(0.13)	0.61*	(0.14)	0.88	(0.24)	0.87	(0.24)	0.43**	(0.13)	0.43**	(0.13)
Age 35-40	0.14**	(0.10)	0.13**	(0.10)	0.13**	(0.08)	0.13**	(0.08)	0.23***	(0.10)	0.23**	(0.10)	0.20**	(0.12)	0.20**	(0.12)	0.20**	(0.10)	0.19**	(0.10)
Age of the youngest child at union dissolution (ref. under 3 years)																				
Child aged 3-5	0.71*	(0.11)	0.71*	(0.11)	0.57*	(0.16)	0.58*	(0.16)	0.97	(0.18)	0.96	(0.18)	0.79	(0.13)	0.80	(0.13)	0.93	(0.21)	0.93	(0.21)
Child aged 6+	0.45**	(0.12)	0.44**	(0.12)	0.81	(0.28)	0.78	(0.27)	0.79	(0.21)	0.77	(0.21)	0.50*	(0.14)	0.51*	(0.15)	0.74	(0.26)	0.75	(0.26)
Mother's highest level of education (ref. medium)																				
High	0.57***	(0.09)	0.57***	(0.09)	0.79	(0.27)	0.74	(0.25)	0.85	(0.15)	0.86	(0.15)	0.95	(0.14)	0.94	(0.14)	0.72	(0.16)	0.72	(0.16)
Low	1.14	(0.21)	1.16	(0.21)	1.33	(0.31)	1.39	(0.33)	0.82	(0.15)	0.82	(0.15)	1.68*	(0.43)	1.63	(0.42)	1.10	(0.27)	1.07	(0.26)
Constant	0.04***		0.04***		0.03***		0.02***		0.03***		0.03***		0.05***		0.05***		0.02***		0.02***	
<i>Loglikelihood ratio test</i>																				
Log-likelihood	-1318.4		-1317.9		-533.0		-531.2		-1102.6		-1101.8		-1172.5		-1171.1		-727.9		-725.8	
LR test statistic			0.95				3.63				1.64				2.85				4.21	
Degrees of freedom			2				2				2				2				2	
Level of significance			0.62				0.16				0.44				0.24				0.12	
Person-months	61968		61968		34439		34439		50341		50341		72863		72863		38402		38402	
Number of women	659		659		395		395		603		603		756		756		431		431	
Number of births	235		235		88		88		191		191		216		216		120		120	

Women's experiences are censored after 15 years following dissolution of the first fertile union, at age 45 and in year 2005. Standard errors in parentheses. Exponentiated coefficients; *p<0.05, **p<0.01, ***p<0.001.

Interrelationship between the type of the first fertile union and the partnership context following dissolution

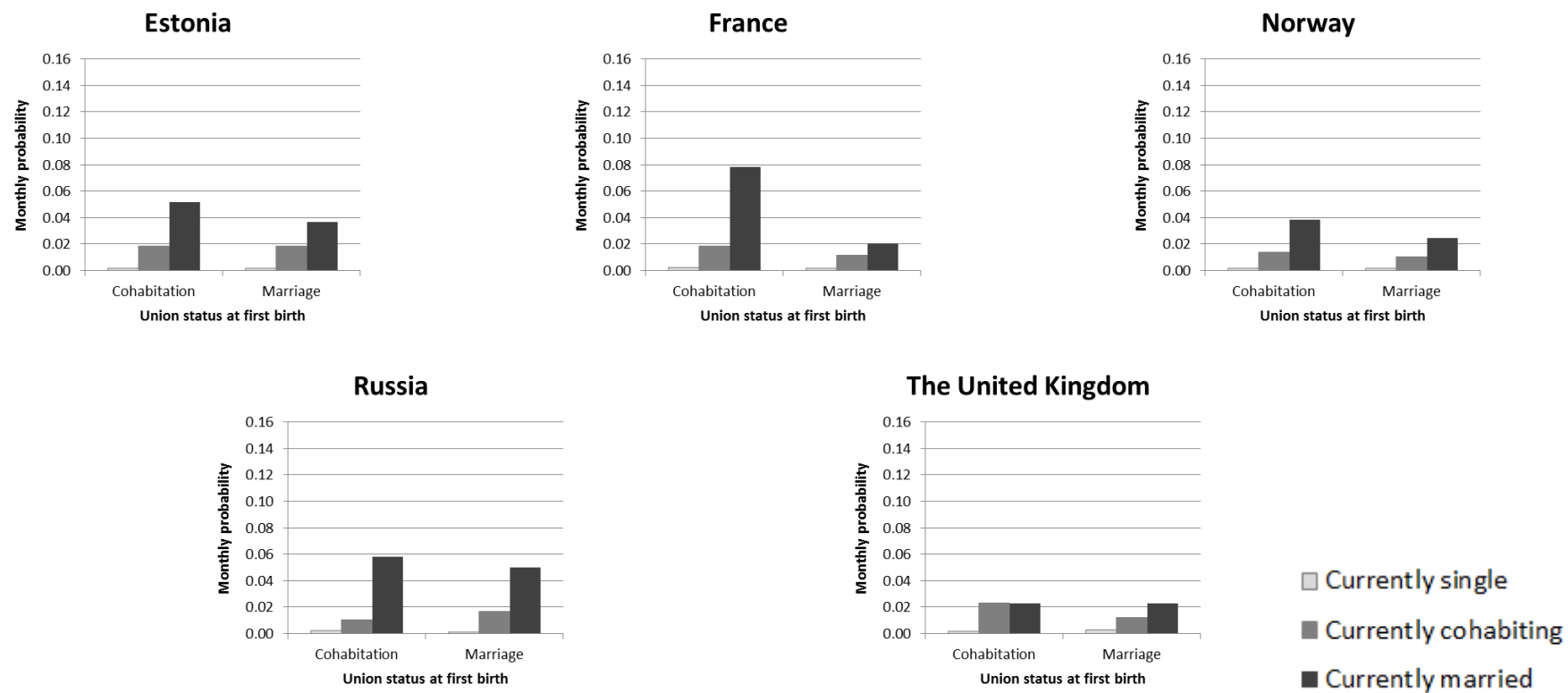
Finally, we test whether the effect of being currently married or cohabiting on birth risks depends on the type of the union in which women entered motherhood (Hypothesis 3). For this purpose, additional discrete-time event hazard models with interaction terms between the type of the first fertile union and current union status are estimated (Table V.2, Model 2, ref.: remarried mothers (M_1 - M_5)). To facilitate the interpretation, the results are also presented in the form of monthly predicted probabilities of having an additional child after separation in Figure V.2.

In all countries, the inclusion of the interaction between the type of the first fertile union and current union status does not significantly improve the model fit (Table V.2, log-likelihood ratio test). Furthermore, in none of the countries is the interaction term significant. This indicates that Hypothesis 3 cannot be confirmed and hence the birth risks of currently married and currently cohabiting mothers do not vary by the type of the union in which women entered motherhood. However, the lack of significance is likely to be due to small sample sizes, particularly in terms of women whose first fertile union was cohabitation (see Appendix C3). Therefore, we still present the results of interaction effects although their interpretation remains tentative.

Currently married women

Figure V.2 indicates that, except in the UK, among currently married mothers monthly predicted probabilities of having an additional child after union dissolution are substantially higher if women entered motherhood in cohabitation (C_1 - M_5) than in marriage (M_1 - M_5). The relationship is particularly strong in France where currently married mothers who had first birth in cohabitation (C_1 - M_5) have four times higher risks (OR=4.06 in Table V.2) of having a birth after separation than remarried women (M_1 - M_5). In the UK, the type of the first fertile union seemingly does not matter for continued childbearing after separation if mothers are currently married (Figure V.1 and OR=1.00).

Figure V.2: Monthly predicted probabilities of having an additional child after separation by type of the first fertile union and current union status



Note: Women cohabiting at first birth and transited into marriage before union dissolution are included in the category “marriage at first birth”. Women’s experiences are censored after 15 years following dissolution of the first fertile union, at age 45 and in year 2005. All other covariates held constant at their reference categories.

Chapter V

Currently cohabiting women

Figure V.2 shows that currently cohabiting women who entered motherhood in cohabitation (C_1 - C_5) have lower monthly predicted probabilities of having a birth after separation than their married counterparts at first birth (M_1 - C_5) only in Russia. We find the opposite situation for France, Norway and the UK where currently cohabiting women have higher probabilities of having a child after union dissolution if they were cohabiting at first birth (C_1 - C_5) as opposed to being married (M_1 - C_5). However, although this relationship is not significant, Table V.2 provides some explanation for these effects. In France, the interaction term is very small ($OR=0.39$) indicating that the effect of current cohabitation is more negative if women entered motherhood in cohabitation, but because the effect of having first birth in cohabitation is very strong ($OR=4.06$ in comparison to M_1 - M_5) the predicted probability for C-C is higher than for M-C.³¹ In Norway, on the other hand, the interaction term is much larger ($OR=0.83$) and the differences in childbearing after union dissolution by the type of the first fertile union are less pronounced ($OR=1.59$ in comparison to M_1 - M_5). By contrast, in the UK, the effect of being currently cohabiting becomes substantially less negative when women cohabited at first birth ($OR=1.95$).

Currently single women

Finally, Figure V.2 shows that in all countries monthly predicted probabilities of having an additional child after separation are very low for currently single women no matter the union type in which women entered motherhood.

Generally, Figure V.2 presents a fairly similar pattern for the monthly predicted probability of having a birth after separation by current union status across countries. In most countries (except in the UK) both women cohabiting and married at first birth have the highest monthly predicted probabilities of having an additional child if they are currently married, intermediate if

³¹ The monthly predicted probability for France (C-C) is calculated using odds ratios for the main effects ($OR=4.06$ and $OR=0.57$), interaction term ($OR=0.39$) and the constant ($OR=0.02$) from Table V.2, Model 2 as follows $(0.02*4.06*0.57*0.39)/(1+(0.02*4.06*0.57*0.39))=0.18$.

currently cohabiting and the lowest while being single. In all countries, except in the UK, the differences in the predicted probabilities by current union type are smaller for previously married women than those cohabiting at first birth. Therefore, although from a statistical significance perspective Hypothesis 3 has to be rejected, by looking at direction of the effect only, we find some tentative support that the effect of current union status on childbearing after separation varies by the type of first fertile union in the UK.

V.5.3 Other variables

In all studied countries, the risk of having a child after union dissolution decreases rapidly with time (particularly after 9 years after union dissolution in comparison to the reference category 2-3 years). However, there are strong differences across countries in the timing when the relative risk of continued childbearing starts to decrease. In Russia, 5 years after union dissolution separated mothers have only half as high of a risk of continued childbearing as women two to three years after separation (reference category). In Estonia, France and Norway, on the other hand, separated mothers do not differ significantly in their fertility behaviour within the first 9 years after union dissolution. In Estonia highly educated mothers have a significantly lower risk of continued their childbearing than their middle educated counterparts. In other studied countries, we find no variation in the risk of having an additional child after union dissolution by education level. Not surprisingly, in all countries, women aged 30+ at union dissolution have a significantly lower risk of continued childbearing than their counterparts who dissolved their first fertile union at age 25-30. No differences in continued childbearing have been found between women who experienced dissolution of first fertile union at a very young age (under 25) and aged 25 to 29. Finally, the age of the youngest child at union dissolution is negatively associated with having a child after separation in Estonia, France and Russia. The negative effect of the age of the youngest child on women's continued childbearing has been documented in previous literature (Buber and Prskawetz 2000, Ivanova et al. 2014, Jefferies et al. 2000).

V.6 Discussion

This study analysed how continued childbearing after union dissolution depends on the type of the first fertile union and the current partnership status. Using data from the Harmonized Histories, this study provides the first insights into the complexity of partnership history and fertility behaviour following union dissolution in five European countries. The study shows surprising similarities in continued childbearing after union dissolution across studied countries.

This study shows that 30-40% of mothers born in 1940-74 had an additional child, mostly in repartnering, 15 years after dissolution of first fertile union. These figures are somewhat lower than results reported by previous studies which estimated that around half of new unions produce a child (Buber and Prskawetz 2000, Griffith et al. 1985, Holland and Thomson 2011, Jefferies et al. 2000, Thomson et al. 2002, Vikat et al. 1999, 2004). However, previous studies have looked at women in partnerships and included childless women and those who entered motherhood outside of union.

First, in most countries union type at first birth has no significant effect on mothers' childbearing after union dissolution. This finding is against Hypothesis 1 suggesting that differences in family values and contraceptive use would make women cohabiting at first birth more likely to have an additional child after separation than women married at first birth. Only in France, women cohabiting at first birth and thereafter have significantly higher birth risks after separation than their counterparts married at first birth.

Second, confirming Hypothesis 2 the results show that repartnering is positively associated with mothers' continued childbearing after separation and that the type of a subsequent partnership matters. Currently cohabiting mothers have significantly lower risks of having a child after separation than their currently married counterparts. We find a similar pattern of continued childbearing after union dissolution in countries where marriage remains the predominant family form for parenthood (Russia) and in countries where new family behaviours are wide spread (Norway and France). The results are consistent with previous studies on European countries showing that women married in repartnering have significantly higher birth risks than cohabiting

women (Beaujouan and Solaz 2013 for France, Buber and Prskawetz 2000 for Austria, Ivanova et al. 2014 for the Netherlands, Jefferies et al. 2000 for the UK³², Meggiolaro and Ongaro 2010 for Italy). However, against Hypothesis 3, no significant evidence has been found that the birth risks of currently married and currently cohabiting mothers vary by the type of the union in which women entered motherhood. However, the lack of significance is likely to be due to small sample sizes.

To the best of our knowledge, this study is the first one investigating the effect of partnership history on mother's continued childbearing after union dissolution. However, largely due to data limitations many aspects remain a task for future research. For example, we were not able to include information on partners' and fertility histories and partnership. Research has provided evidence that stepfamily fertility depends on partners' parenthood status and custodial arrangements (Buber and Prskawetz 2000, Ivanova et al. 2014, Thomson et al. 2002, Vikat et al. 2004). Previous studies have particularly stressed the importance of a couple's combined number of shared and stepchildren for fertility behaviour in new unions (Buber and Prskawetz 2000, Ivanova et al. 2014, Thomson et al. 2002, Vikat et al. 2004). Although the Harmonized Histories contains information on partners' number of children for many countries, the large number of missing values for Norway and the UK and the lack of information on the place of residence of partner's children in all countries does not allow us to test systematically whether the effect of partnership history changes if partners' children are included. In addition, previous research has demonstrated that the birth risk in a new union is particularly high among women who remarry to a never married man (Jefferies et al. 2000).

Finally, it has to be acknowledged that women born in 1940-74 may be very heterogeneous in terms of their first partnership experience. In the oldest cohorts the vast majority of mothers were married when their first fertile union dissolved. The prevalence of women who entered motherhood in cohabitation

³² In comparison to single divorced women, however parameter estimate is larger for remarried than for cohabiting women.

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and experienced union dissolution without transforming their first unions into marriage is in the birth cohort 1940-74 still relatively low. In fact, the proportion of mothers who experienced separation from the cohabiting father of the first child has started to increase predominantly among women born after 1960. The small sample size and limited number of cohabiting women in the oldest birth cohort does not allow us to conduct detailed analyses by birth cohort, however.

Nevertheless, despite these limitations, this study makes an important contribution as it suggests that although cohabitation and fertility within non-marital unions have dramatically increased over the last four decades, marriage is still the most important setting for childbearing. The importance of marriage in childbearing after union dissolution may not only manifest the normative belief about the superiority of marriage over other alternative settings for raising children but it may also result from the past experience of union dissolution. Mothers, both previously married and cohabiting, who experienced separation and faced challenges related to single motherhood may want to gain the protection offered by marriage particularly if they decide to continue childbearing in a new partnership (Perelli-Harris and Sánchez Gassen 2012, Sánchez Gassen and Perelli-Harris 2015). On the other hand, since the vast majority of second unions start with cohabitation (Chapter III), lower birth risks may to a certain extent, mirror the role of cohabitation in women's life. For instance, currently cohabiting mothers are likely to have a very low birth risk if they perceive cohabitation as a testing ground for a relationship or alternative to being single. The higher risks of childbearing within marriage may be due to the self-selection of family-oriented individuals into marriage (Poortman 2007, Bumpass et al. 1990).

However, the positive effect of marriage on continued childbearing after union dissolution may also result from couples' joint decisions about entering marriage and having a shared child (Musick 2007). In this case current union status would be endogenous to fertility decisions (Thomson 2004) which may bias the results (Brien et al. 1999). Previous studies focusing on first partnerships addressed this issue by modelling the two events simultaneously controlling for unobserved heterogeneity (Baizán et al. 2003, Brien et al. 1999). However, it may be that the link between marriage and fertility in repartnering

with (potential) higher order births is weaker than the relationship between entering parenthood and first union formation. In addition, the selection bias may matter more in some countries than in the others. The interrelation between continued childbearing after union dissolution and marriage may vary depending on the prevalence and the institutionalisation grade of cohabitation, as well as institutional arrangements that affect incentives to marry as opposed to cohabit (Baizán et al. 2004, Perelli-Harris and Sánchez Gassen 2012). For instance, in countries like Russia where cohabitation is less prevalent, childbearing may be closer related to marriage as compared to Norway where non-marital unions and fertility within cohabitation are more common. Future studies could seek to understand how the relationship between higher order unions and higher parity progressions varies in different socio-cultural contexts.

VI. Discussion and conclusions

VI.1 Introduction

The main goal of this thesis was to improve our understanding of family changes related to the process of the deinstitutionalisation of marriage which started in the 1960s in Europe and the United States and continue to shape individuals' lives, families and societies (Cherlin 2004, Sobotka 2008, Sobotka and Toulemon 2008). More specifically, this thesis focused on the role of cohabitation and divorce in women's repartnering dynamics and mothers' childbearing behaviour after union dissolution. On the one hand, the rising prevalence of cohabiting unions which tend to be less stable than marriages implies increases in the proportion of never married individuals exposed to repartnering. On the other hand, profound changes in the institution of marriage have led to increasing divorce rates resulting in a rising number of divorcees at risk of repartnering (Amato and Hohmann-Marriott 2007, Cherlin 2004, Coontz 2004, Giddens 1992, Thornton et al. 2007). Finally, given that many dissolved marriages, but recently also cohabiting unions, involve children, this thesis examined how mothers' continued childbearing is shaped by their partnership history and current union status.

The overarching aim of this thesis was to examine whether the type of the dissolved first union, i.e. marriage (direct or preceded by cohabitation) or cohabitation which has not been transformed into marriage, matters for second union formation and mothers' childbearing after union dissolution. In the analyses on repartnering, it was argued that since cohabiting and married women have been shown to differ in a range of individual characteristics, they are also likely to differ in their incentives to repartner as well as the opportunities and constraints they face in the repartner market. In the study on continued childbearing, the type of first fertile union was used as a proxy for contraception use and attitudes towards family.

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The thesis adopted a cross-national approach by analysing up to 15 countries and had three main objectives which were addressed in separated empirical chapters. Embedded within the Needs, Opportunity and Attractiveness (NOA) framework (Becker 1991, de Graaf and Kalmijn 2003, Goldscheider and Waite 1986, Ivanova et al. 2013, Oppenheimer 1988), the first empirical Chapter (III) examined repartnering dynamics (level, type and pace) and the second (Chapter IV) the role of women's demographic characteristics at union dissolution in second union formation. Based upon the empirical observation that around half of new established unions produce a child (Buber and Prskawetz 2000, Griffith et al. 1985, Holland and Thomson 2011, Thomson et al. 2002b, Vikat et al. 1999, 2004), either to strengthen the relationship, to enter parenthood for the childless partner, or to provide a sibling to pre-union children (Griffith et al. 1985), the third empirical Chapter (V) examined the effect of partnership history on mothers' birth risks after union dissolution. The following section discusses the key empirical findings of this thesis.

VI.2 Summary of results

VI.2.1 Repartnering dynamics across Europe and the United States (Chapter III)

The aim of the first empirical analyses (Chapter III) was to provide a systematic description of the state of repartnering dynamics across three female birth cohorts (1945-54, 1955-64 and 1965-74) in 14 European countries and the United States. For this purpose, Chapter III addressed five research questions of which the first two described the family demographic context for repartnering by presenting cross-national differences in first union formation and dissolution by union type at the population level. The further three research questions investigated repartnering dynamics by providing general information on the prevalence of repartnering at the population level and by examining the pace of second union formation in Western societies. In line with the process of the deinstitutionalisation of marriage, the underlying assumptions were that most second unions would start with cohabitation and that women separated from cohabiting first partners would repartner quicker

than divorcees. However, we anticipated that repartnering dynamics would vary across Europe and in the US.

First, as expected Chapter III demonstrated large cross-national differences in the prevalence of repartnering at the population level. Second union formation is much more common in the US and Northern and Western Europe than in Southern Europe and most Eastern European countries. The results are in line with a previous study by Prskawetz and colleagues (2003) who have reported similar order of the countries for women born in 1952-59 who entered second unions by age 35. However, apart from the convergence between the US and the European countries with the highest prevalence of repartnering (Norway and the UK) in the youngest birth cohort 1965-74, the remarkable cross-national differences in the repartnering levels have remained constant across birth cohorts.

In addition, although the direct comparison of repartnering levels across female birth cohorts is not possible due to the differences in women's age at the interview, Chapter III documented a substantial increase in the prevalence of repartnering among more recent birth cohorts. It is striking to observe that at the population level, women born in 1965-74 (aged 30-40 at interview) show similar, often even higher, levels of repartnering at the time of the survey to that of women in the oldest birth cohort 1945-54 (aged 50-60 at interview). In many countries, the increase in repartnering is likely to be due to the increasing number of women with cohabitation experience in their first partnership.

Despite the great diversity in the population at risk of repartnering in terms of first partnership type, we confirmed our expectation that in the US and all European countries, also those with strong marriage norms (Italy and Poland), the vast majority of women start their second unions with cohabitation. This finding is in line with previous studies showing that direct marriages are rather rare in repartnering (Blanc 1987, Kiernan and Estaugh 1993, Wu and Schimmele 2005).

However, countries differ substantially in the percentages of women who repartner within five years after first union dissolution. Generally, separated

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women in Norway, the UK and the US repartner to a greater extent shortly after re-entering the partner market than women in Southern and most Eastern European countries. Additional analyses revealed that cross-national differences in the pace of repartnering are strongly associated with the prevalence of first union dissolution at the population level. In countries where many women experience separation from the first partner, the proportion of women repartnering within five years since first union dissolution is also high. However, some differences in the pace of repartnering among countries with similar union dissolution levels are observed.

Finally, despite cross-national differences in the percentage of women who repartner within five years since first union dissolution, in all countries the pace at which separated women form their second unions has increased across birth cohorts. This finding may be explained by changes in first union type, i.e. a shift from marriage to less stable cohabitation. In fact, in line with our expectations, life table estimates in Chapter III provide some evidence that women who experienced dissolution from a cohabiting first partner, repartner at somewhat faster pace than divorcees. However, it may also be that women in the youngest cohort are very young and possibly selective of those with elevated risk of union dissolution.

VI.2.2 The role of women's demographic characteristics at union dissolution in explaining repartnering behaviour in 14 European countries (Chapter IV)

The second empirical Chapter investigated the role of women's demographic characteristics at union dissolution in explaining repartnering behaviour in 14 European countries (Chapter IV). Two sets of analyses were conducted for women born in 1950-69. First, Chapter IV examined the effects of women's age and the presence of children at union dissolution and the type of first union on repartnering chances in each country separately. More specifically, this analysis investigated whether the effect of women's demographic characteristics identified in the literature as the main determinants of repartnering, is universal across European countries. Second, the Chapter assessed the importance of women's demographic characteristics in explaining the cross-national differences in repartnering risks in Europe. The underlying assumption here was that the observed cross-national differences in second

union formation, may result from compositional differences in the population at risk of repartnering in Europe.

Although European countries differ in the composition of the population at risk of repartnering in terms of age and presence of children at union dissolution and the first union type, Chapter IV showed more similarities than differences in the impact of women's demographic characteristics on second union formation across the continent, including countries that have not been studied before (Belgium, Estonia, Lithuania, Poland, Spain). First, in line with previous studies, the increasing age at separation seems to reduce women attractiveness to a potential partner in a similar way across all European countries (Beaujouan 2012, Ivanova et al. 2013, Jaschinski 2011, Meggiolaro and Ongaro 2008, Poortman 2007, Skew et al. 2009, Wu and Schimmele 2005). Second, in many countries, the presence of children at union dissolution had a significant negative effect on women's repartnering chances. In countries where the differences between mothers and childless women were not significant, mothers' odds ratios of repartnering were below zero. These results generally corroborate prior research showing that in most European countries previous fertility may decrease women's attractiveness to a potential partner and restrict meeting and mating opportunities in the partner market (Beaujouan 2012, de Graaf and Kalmijn 2003, Ivanova et al. 2013). Third, in the vast majority of countries the type of first union does not matter for repartnering once women's age and fertility at union dissolution are taken into account. This holds also for countries with a low prevalence of separation and strong marriage norms (e.g. Italy and Poland), in which one may expect a substantial stigma attached to divorce. This finding is important as previous studies had provided scarce and mixed evidence on the role of first union type on the repartnering process (Wu and Schimmele 2005, Skew et al. 2009, Lampard and Peggs 1999, Poortman 2007).

The second set of analyses tested whether compositional differences in the population at risk of repartnering explain the variation in second union formation across Europe. The results indicated that women's age and presence of children at union dissolution and the type of first union, explain only partially the cross-national differences in repartnering behaviour in Europe.

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Therefore, although micro-level characteristics are crucial predictors of women's repartnering within a country, it seems that macro-level context, e.g. partner market structure and variation in cultural, legal and institutional settings, may be even more important in explaining why European countries differ in repartnering behaviour.

VI.2.3 The role of partnership context on mothers' continued childbearing (Chapter V)

Chapter V aimed to provide first insights into the effect of mothers' partnership history on continued childbearing after dissolution of first fertile union in five European countries (Estonia, France, Norway, Russia and the United Kingdom). In line with the concept of the deinstitutionalisation of marriage, the analyses focused on the role of partnership history, i.e. the type of union in which women entered motherhood and the current partnership status, on continued childbearing. Three hypotheses were empirically tested.

First, using the type of first fertile union as proxy for contraceptive use and attitudes towards family, we expected that women cohabiting at first birth would have higher birth risks following union dissolution than women who entered motherhood in marriage. However, against this hypothesis in most countries union type at first birth has no significant effect on mothers' childbearing after union dissolution.

Second, we hypothesised that the risk of having a subsequent child after union dissolution will be highest for currently married women, intermediate for those currently cohabiting and the lowest for single mothers. The results show that partnership status after union dissolution has a significant effect on mothers' childbearing. Not surprisingly, repartnering matters for continued childbearing and currently cohabiting mothers have significantly lower risks of having another child after dissolution of their first fertile union than currently married mothers. These results hold for all studied countries, i.e. countries with strong marriage norms and those where cohabitation is wide-spread.

Finally, we tested whether the association between being currently married or cohabiting and the likelihood of subsequent childbearing differ according to partnership history. In all countries, the interaction between

current union status and the type of first fertile union is not significant, indicating that the impact of current partnership status on mothers' birth risks after union dissolution does not depend on the type of the union in which mother entered motherhood. However, the lack of significance may be due to small sample size.

Altogether, the results presented in Chapter V suggest that although cohabitation and fertility within non-marital unions have dramatically increased over the last four decades, marriage is still an important setting for childbearing. This finding is consistent with previous studies on stepfamily fertility in other European countries (Beaujouan and Solaz 2013 for France, Buber and Prskawetz 2000 for Austria, Ivanova et al. 2014 for the Netherlands, Meggiolaro and Ongaro 2010 for Italy). In addition, this result is in line with a previous study by Perelli-Harris (2014) who showed that cohabiting women in Europe and the US have generally lower second birth risks than married women. It may be that particularly for mothers who experienced the challenges related to single-motherhood, higher stability (Andersson 2002, Bramlett and Mosher 2002), relationship quality (Brown 2003, Wiik et al. 2009) and legal protection (Sánchez Gassen and Perelli-Harris 2015) offered by marriage, make it a more attractive setting for having children than cohabitation.

VI.3 Discussion of the results

VI.3.1 Implications of repartnering

The main finding of this thesis is the increase of repartnering levels among younger birth cohorts in European countries and the United States. The following section reiterates its implications for individuals, families and societies (Coleman et al. 2000, Sweeney 2010). At the individual level, the rising prevalence of repartnering is likely to counterbalance the negative economic consequences of union dissolution and hence improves women's and their children's standard of living (de Regt et al. 2012, Dewilde and Uunk 2008, Jansen et al. 2009, Mortelman and Jansen 2010, Sweeney 2010). In addition, the increasing pace of repartnering means that, on average, women

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in the more recent birth cohorts may suffer the hardship related to union dissolution for a shorter period of time than their counterparts in older generations. This may be particularly beneficial for single mothers who are at increased risk of poverty and deprivation (Chzhen and Bradshaw 2012). Repartnering also has a positive effect on individuals' psychological wellbeing (Demo and Acock 1996, Dupre and Meadows 2007, Hughes and Waite 2009).

Given that many women exposed to repartnering are mothers, increasing repartnering suggests that stepfamilies may become more common. However, the complexity of stepfamily structures in repartnering may have adverse effects on children in stepfamilies which could, to a certain extent, counteract the advantages of repartnering (Cherlin 2009, Sweeney 2010). More specifically, although the effects largely depend on measured outcome, living with a stepparent may have some negative effects on children's educational achievement, psychological wellbeing and cognitive outcomes (Coleman et al. 2000, Sweeney 2010). The concern about children's wellbeing may be even greater once one acknowledges that second unions have higher dissolution risks than first partnerships (Booth and Edwards 1992, Brown and Lin 2012, Furstenberg and Spanier 1984, Teachman 2008). A series of transitions in children's family-life implies stress and adjustment to new family structure which may have a negative impact on children's emotional and behavioural development (Cherlin 2009, Sweeney 2010).

Furthermore, the rising prevalence of repartnering, particularly at younger ages, may lead to increasing fertility in higher order unions. A shared child in a new union is claimed to have a unique value which overcomes the costs related to rearing a larger number of children (Thomson 2004, Vikat et al. 2004). First, repartnering may compensate for the disruption in women's childbearing caused by union dissolution. In fact, Chapter V shows that 30-40% of mothers had a birth after dissolution of first fertile union, mostly in repartnering. Second, many children born in repartnering constitute births of higher order (Thomson 2004), which are crucial for aggregate fertility levels (Beaujouan and Solaz 2013, Meggiolaro and Ongaro 2010, Thomson et al. 2012, Van Bavel et al. 2012). The importance of childbearing in repartnering for overall fertility rates depends on the prevalence of repartnering in a country, however (Chapter III).

Finally, the increasing prevalence of second unions which are less stable than first partnerships and the rising occurrence of cohabitation which is more fragile than marriage, suggests that women in the more recent birth cohorts are increasingly likely to experience multiple partnerships and have children to different partners (Thomson et al. 2014, Vespa 2014). Since serial partnerships and multi-partner fertility have been associated with socio-economic disadvantage (Bukodi 2012, Carlson and Furstenberg 2006, Cohen and Manning 2010, Guzzo and Furstenberg 2007, Lichter and Qian 2008, Lichter et al. 2010, Thomson et al. 2014), it seems that their consequences for individuals and families may be even greater than those of second union formation.

VI.3.2 Deinstitutionalisation of marriage

This thesis has strongly supported previous literature on increasing cohabitation experience in first partnerships (Kiernan 2002, 2003, Perelli-Harris et al. 2010, 2012) and provided new evidence that most second partnerships, at least at the beginning, are non-marital unions. These findings have important implications for the institution of marriage. On the one hand, previous research has documented a relationship between premarital cohabitation and marital outcome. The vast majority of studies have shown that cohabitation prior to marriage decreases marital quality and increases divorce risks (Bennett et al. 1988, Berrington and Diamond 1999, Kamp Dush et al. 2003, Stanley et al. 2006). However, the negative effect may be due to selection effects (Bennett et al. 1988, Lillard et al. 1995) and may depend on the diffusion of cohabitation in a population (Liefbroer and Dourleijn 2006). Recent studies have also suggested that once cohabitation becomes more common and presumably less selective, the negative effect on marital stability may be weaker or even reverse (Hewitt and De Vaus 2009, Manning and Cohen 2012, Reinhold 2010), in which case, increasing cohabitation would, in the long run, pose no threat to the institution of marriage. However, given the current state of family demographic behaviour in Western societies, increases in the premarital cohabitation may have stronger effect on the

deinstitutionalization of marriage in some countries than in the others in the future.

On the other hand, the rising prevalence of cohabiting first unions that have not been transformed into marriage and the finding that most second unions start with cohabitation indicate that serial cohabitation is likely to increase (Bukodi 2012, Cohen and Manning 2010, Lichter et al. 2010, Vespa 2014). Serial cohabitators in the UK and the US have been shown to have lower transitions rates into marriage (Bukodi 2012, Lichter and Qian 2008), higher separation rates (Bukodi 2012) and higher risks of subsequent marital dissolution than single-instance cohabitators (Lichter and Qian 2008, Teachman 2003). The rise in serial cohabitation may therefore challenge the institution of marriage to a greater extent than single instance cohabitation (Bukodi 2012, Cohen and Manning 2010, Lichter et al. 2010, Vespa 2014). However, given that the increases in serial cohabitation have been observed particularly among women born in mid-1970s or later, and that European countries differ in family patterns from the US and the UK, examining the role of serial cohabitation in the process of the deinstitutionalisation of marriage in Western societies remains an important task for future research.

The effect of cohabitation in repartnering on the deinstitutionalisation of marriage may depend on the meaning that repartnered women attach to cohabitation in second unions. With the increasing prevalence of cohabitation in first partnerships, numerous typologies have been proposed to describe the role of cohabitation in family formation processes (e.g. Heuveline and Timberlake 2004, Hiekel et al. 2014, Prinz 1995, Villeneuve-Gokalp 1991). However, since cohabitators in repartnering may be older and have pre-union children (Chapter IV), and because the experience of first union dissolution, particularly divorce, is likely to alter an individual's views of commitment (Furstenberg and Spanier 1984), it is unclear how the meaning of cohabitation varies by partnership order. Future research, using a large sample of women cohabiting in new unions, as well as information on marital intentions and attitudes towards marriage and divorce, could examine whether cohabitation in repartnering is more often a prelude to marriage or an alternative to marriage or being single. Differentiating between cohabitation in first and second

partnerships would provide more information on how cohabiting second unions change the institution of marriage.

Furthermore, repartnering on its own is likely to contribute to the deinstitutionalisation of marriage. Previous research has argued that remarriages are less institutionalised than first marriages, and that stepfamilies are incomplete institutions (Cherlin 1978, 2004, Cherlin and Furstenberg 1994). Increasing repartnering levels and the fact that most women exposed to repartnering are mothers (Chapter IV) suggest that stepfamilies may be more common in the future. Stepfamilies generally lack the norms that could guide stepfamily members in creating and maintaining relationships to one another and to previous family members living outside the household. In addition, the rising prevalence of cohabitation has increased the complexity of stepfamilies, particularly in terms of ambiguity of relationships between (step)children and (step)parents (Brown and Manning 2009; Stewart 2005, Sweeney 2010, Thomson 2014).

Finally, increasing cohabitation in first and second partnerships may further contribute to the diffusion of non-traditional family behaviour in the long run through the intergenerational transmission of family behaviour (Amato 1996, Amato and Booth 1991, Axinn and Thornton 1996). Also, experiencing stepfamilies in childhood has been shown to affect attitudes towards non-traditional behaviour in adulthood (Bernhardt and Goldscheider 2002, Goldscheider and Kaufman 2006, Goldscheider and Sassler 2006).

VI.3.3 Cross-national research on family demographic changes

Although Western societies follow this same trend towards a greater deinstitutionalisation of marriage, cross-national differences in the extent, timing and the pace at which these changes have occurred are striking (Sobotka and Toulemon 2008, Kalmijn 2010, Billari and Liefbroer 2010).

Previous research has emphasised that the US stands out in comparative research as a country with a very high level of union instability and repartnering (Andersson 2003, Heuvelin et al. 2003, Cherlin 2009). This thesis

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shows that the levels of first union dissolution in the US are much higher than in any other country in Europe among women born in 1945-54 and 1955-64. Among the youngest female birth cohort, union dissolution levels in the US are still the highest among Western societies but the differences to the European countries with the highest union instability, e.g. Norway, the UK and Austria, have decreased. Similarly, the results indicate a convergence in the birth cohort 1965-74 between the US and some European countries in the prevalence of repartnering at the population level. However, the differences arise in the population at risk of repartnering in terms of the type of the dissolved first union. Even in the youngest birth cohorts, the US in comparison to Norway is characterised by a substantially higher percentage of women who re-enter the partner market after dissolution of a direct marriage. In fact, in terms of the type of the dissolved first unions, the US resembles more Eastern European countries with the highest prevalence of union dissolution, particularly Estonia and Russia. Similarities between the US and some Eastern European countries in the patterns of union dissolution and repartnering by first union type have also been recently reported by Perelli-Harris and Lyons-Amos (2015). The differences in union type between Europe and the US are less visible in the entry into repartnering, however. Despite some direct marriages, American women similarly to their European counterparts predominantly start their second unions with cohabitation.

On the other hand, the comparative framework of this thesis allowed us to examine family patterns across European countries. Some researchers have suggested that existing cross-national differences result from the different timing and pace at which family changes have emerged and that in the long run, family patterns will converge across Europe, but they have not yet (Billari and Liefbroer 2010). Other scholars have emphasised the effect of longstanding differences in institutional arrangements (i.e. welfare state regimes and policies) and a historical cultural tradition of family demographic patterns which make the convergence of family patterns unlikely (Esping-Andersen 1990, 1999, Hajnal 1965, 1982, Reher 1998). The results in Chapter III show that countries follow similar trajectories towards increasing cohabitation in first partnerships and therefore, rising prevalence of women at risk of repartnering who have some cohabitation experience, rising importance of cohabitation in second union formation, and towards a greater union

instability in general and increasing prevalence of second unions across birth cohorts. However, despite those similar trends, remarkable cross-national differences in terms of the level of union instability and repartnering and the diffusion of cohabitation have remained constant across female birth cohorts (Buchmann and Kriesi 2011, Kalmijn 2007, Sobotka and Toulemon 2008). For instance, although the prevalence of cohabitation has generally increased across Western societies, in most Eastern European countries the strong marriage norms have prevailed even among women in the most recent birth cohorts; in many countries in Eastern Europe, the vast majority of women born in 1965-74 directly marry their first partner and hence most women exposed to repartnering do not have any cohabitation experience. At the same time, in Western Europe not more than a quarter of women had a direct marriage in first partnership at the population level. In addition, countries characterized by the strong influences of the Catholic Church, like Italy and Poland, show still very traditional family patterns and lag even in the youngest birth cohort somewhat behind other European countries in terms of diffusion of non-traditional family behaviour (Andersson 2002, 2003).

VI.3.4 Micro-level determinants of repartnering

Chapter IV examined the cross-national differences in second union formation (i.e. repartnering risk) more closely. More specifically, it investigated the role of women's demographic characteristics on repartnering chances in 14 European countries. First, it showed that although cohabiting and married women may differ in many aspects (Clarkberg et al. 1995, Lesthaeghe 2010, Perelli-Harris 2014, Soons and Kalmijn 2009, Wiik et al. 2009), their repartnering behaviour seems similar, once age and children at dissolution are taken into account. The insignificant effect of first union type on second union formation is universal in all European countries. Second, Chapter IV demonstrated that age and the presence of children at union dissolution have a very similar negative effect on women's repartnering chances across Europe. This finding corroborates previous empirical evidence on selected European countries (Beaujouan 2012, de Graaf and Kalmijn 2003, Ivanova et al. 2013, Jaschinski 2009, Lampard and Peggs 1999, Meggiolaro and Ongaro 2008; Poortman 2007, Skew et al. 2009).

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The effect of women's demographic characteristics on the risk of repartnering is the same across the continent despite the cross-national differences in the population at risk of repartnering and the variation in the country-specific context in which repartnering occurs. Older women tend to be less attractive to a potential partner as men have stronger preferences to partner with younger women (Bumpass et al. 1990, England and McClintock 2009, Hughes 2000, Ní Bhrolcháin 1992) or because women may be less willing or unable, due to biological limits on fertility, to have (further) children (Beaujouan 2012, Ermisch and Wright 1991). Similarly, mothers are believed to be disadvantaged in the re-partner market because men are often reluctant to form a stepfamily or because small and school aged children restrict women's opportunities to meet and mate (de Graaf and Kalmijn 2003, Ivanova 2013).

VI.3.5 Living apart together

However, although age and children at union dissolution have generally negative effects on second union formation, some older women and mothers may simply not want to enter a cohabiting or a marital union and have instead stronger preferences towards non-residential partnerships (Regnier-Loilier et al. 2009). In fact, for Britain, Duncan and Phillips (2008) have estimated that 9% of individuals have a non-resident partner (aged 18+), indicating that 25% of individuals who are classified as single have a partner outside of the household. Similar estimates have been reported for Australia (Reimondos et al. 2011) and the US (Strohm et al. 2009). Although half of women having a Living Apart Together relationship (short LAT) are aged under 24 and anticipate cohabiting or marrying in the future (Duncan and Phillips 2010, Reimondos et al. 2011), LATs are also quite frequent among women aged under 40³³. The motivation for being in a LAT relationship varies by age, however (Regnier-Loilier et al. 2009). While LAT relationships among young adults are mainly imposed by circumstances (especially economic constraints and enrolment in education), among older individuals LATs encompass particularly separated women with co-resident children who deliberately choose to have a non-resident partner (Regnier-Loilier et al. 2009, Reimondos et al. 2011, Upton-Davis 2012). For

³³ For instance, Regnier-Loilier et al. (2009) have estimated that in France in 2005 around 37% of women aged 25-49 (12% aged 30-49) who declared being in a partnership have a non-resident partner.

instance, some qualitative studies have suggested that women with children present in the household may be concerned about their children's wellbeing and, hence, avoid potentially stressful situations related to stepfamily complexity (Lampard and Peggs 1999). Nevertheless, the role of LATs in the repartnering process across Europe is largely understudied and remains a task for future research.

VI.3.6 Explaining cross-national differences in repartnering – the role of the macro-level context

Since women's micro-level demographic characteristics at first union dissolution only partially account for the differences in repartnering behaviour across Europe, this thesis demonstrates that the macro-level context in which repartnering occurs may be crucial for explaining cross-national differences in repartnering. Presumably, cross-national differences in the structure of the repartner market may explain more the variation in repartnering dynamics across Europe than women's age and parenthood status at first union dissolution. The differences in the level of first union dissolution across Europe result in a variation of the pool of potential partners (Chapter I, Figure I.1). Chapter IV (Figure IV.1) showed that the percentage of women who experienced first union dissolution by age 40 varies from around 10% in Southern and many Eastern European countries to over one third in Norway, the UK and Estonia. Although countries with this same prevalence of union dissolution may differ in the pace of repartnering, in some countries there are simply more unpartnered individuals to choose from than in the others.

However, the pool of potential partners does not only comprise previous partners of separated women but also never partnered men. Thus, potential partners may constitute a heterogeneous group in terms of their own partnership history (never-married, divorced), demographic characteristics (age, fertility) and socioeconomic status (Bhrolcháin and Sigle-Rushton 2005, Shafer and James 2013). The structure of the partner market may have important implications for repartnering behaviour, not only regarding availability, but also because the characteristics of potential partners may shape their attitudes and behaviour towards partnering with women who experienced union

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dissolution and/or have children (Bernhardt and Goldscheider 2002, Goldscheider and Kaufman 2006, Goldscheider et al. 2009, Goldscheider and Sassler 2006, Stewart et al. 2003). For instance, apart from men's preferences for younger women (England and McClintock 2009), some evidence coming from the US has suggested that, in comparison to never married men, divorced men have more favourable attitudes and are also more likely to form a union with mothers and women whose marital first union also dissolved (Bernhardt and Goldscheider 2002, Goldscheider and Sassler 2006, Stewart 2003). In addition, men who are fathers are more likely to form unions with mothers than childless men (Bernhardt and Goldscheider 2002, Goldscheider and Sassler 2006).

Some studies have highlighted the longstanding cultural traditions in family formation patterns (Hajnal 1965, Reher 1998) which may also affect the pace and the prevalence of repartnering. In particular, cross-national differences in repartnering may be explained by the timing of diffusion of divorce across Europe. On the one hand, in countries with strong marriage norms, where marital dissolution is not very common, women may face stigma attached to divorce and thus be perceived as less attractive to the potential partner (Meggiolaro and Ongaro 2008, Ivanova et al. 2013). This could explain the low repartnering risks in countries like Italy and Poland. On the other hand, in settings where divorce has been prevalent for a longer time, a significant share of potential partners may have experienced parental divorce in childhood (Perelli-Harris et al. 2015). The intergenerational transmission of divorce may have implications for repartnering as men who had experienced parental marital union dissolution or a non-traditional family form in childhood are more likely to partner with divorced women and are more willing to form a (step)family than those who grew up in an intact family (Bernhardt and Goldscheider 2002, Goldscheider and Kaufman 2006, Goldscheider et al. 2009).

Finally, differences in repartnering across Europe may be driven by country-specific institutional and welfare state arrangements which may have an impact on family demographic behaviour (Gauthier 2007, Neyer and Andersson 2008, Perelli-Harris and Sánchez Gassen 2012). Generally, women suffer economic hardship following union dissolution to a much greater extent than men (Aassve et al. 2007, Andreß et al. 2006), and repartnering has been

proven as an effective strategy to increase women's economic wellbeing (de Regt et al. 2012, Dewilde and Uunk 2008, Duncan and Hoffman 1985, Jansen et al. 2009, Manting and Bouman 2006, Ozawa and Yoon 2002). However, the economic incentives to repartner are likely to depend on policies to support lone parents and labour market regulations enhancing mothers' employment (Dewilde 2002, Uunk 2004, Andreß et al. 2006). The latter, may also be important for repartnering because they affect women's opportunities to meet and mate (de Graaf and Kalmijn 2003).

VI.3.7 Needs, Opportunities and Attractiveness

Nevertheless, most likely repartnering behaviour results from the interaction of both micro- and macro-level components. In fact, previous literature has proposed the NOA framework which integrates individual characteristics and country-specific context (Becker 1991, de Graaf and Kalmijn 2003, Goldscheider and Waite 1986, Ivanova et al. 2013, Oppenheimer 1988). Accordingly, women's repartnering behaviour results from the interplay between women's (1) need to repartner, (2) attractiveness to a potential partner and (3) the opportunities women face when re-entering the partner market. The NOA framework has been proven useful in explaining repartnering behaviour within single countries (de Graaf and Kalmijn et al. 2003, Ivanova et al. 2013). A promising avenue for future comparative research would be to utilize it in explaining cross-national differences in repartnering behaviour. Since demographic individual characteristics only partially explain the differences in second union formation in Europe (Chapter IV), the remaining country effect is presumably up to contextual factors. Using a multilevel approach on a larger number of countries, future studies could additionally integrate and quantify the effect of cultural traditions, welfare policies and partner market structure on women's needs, opportunities and attractiveness, and hence improve our understanding of the mechanisms underlying second union formation in Western societies.

VI.4 Contribution of the thesis

This doctoral thesis makes numerous important contributions to the literature examining the process of the deinstitutionalisation of marriage and to the comparative research on trends and determinants of family demographic patterns in Western societies. First, it contributes to the ongoing debate on the role of cohabitation in the changing character of marriage in Western societies (Cherlin 2004, Coontz 2004, Lauer and Yodanis 2010, Thornton et al. 2007). It provides most up-to-date figures on the prevalence of cohabitation in first unions at the population level across birth cohorts. Despite cross-national differences, women increasingly experience cohabitation in their first partnerships in Western societies (Chapter III). This is also observed in the composition of the population at risk of repartnering by first union type (Chapter III and IV). While in the birth cohort 1945-54, in the vast majority of countries, most women who experienced first union dissolution married directly their first partners, in the birth cohort 1965-74, in most countries, the majority of women who are at risk of repartnering experience cohabitation in their first unions, i.e. either prior to marriage or cohabitation which has not been transformed into marriage.

Second, by differentiating between cohabiting and married women in first partnerships, this thesis improves our knowledge of the effect of first union type on repartnering behaviour (Chapter III, IV). It has been hypothesised that since cohabiting and married women differ from each other in a wide range of aspects (Clarkberg et al. 1995, Lesthaeghe 2010, Perelli-Harris 2014, Soons and Kalmijn 2009, Wiik et al. 2009), which may also affect their incentives, opportunities and constraints in the partner market, they are also likely to show different repartnering behaviour. The life-table estimates presented in Chapter III support the evidence from earlier studies, which used the same demographic method, and showed that previously cohabiting women repartner at a somewhat faster pace than divorcees (Blanc 1987 in Sweden and Norway, Ermisch 2002 in the UK, Skew et al. 2009 in Australia and the UK, Wu and Schimmele 2005 in Canada). However, the multivariate regression analyses from Chapter IV indicate that once age and presence of children at union dissolution are taken into account, first union type does not matter for second

union formation. These results suggest that not the union type but women's demographic characteristics at separation are decisive for repartnering.

Third, whilst looking at women who had entered motherhood in a partnership and experienced union dissolution (Chapter V), this thesis provides insights into the role of partnership history in continued childbearing. Although women married and cohabiting at first birth are likely to differ in their contraceptive use and family attitudes, the results indicate that union type in which women entered motherhood does not affect their childbearing behaviour after union dissolution. However, current partnership status and the type of repartnering have a significant effect on mothers' birth risks following union dissolution. Therefore, although the prevalence of non-marital unions and fertility to cohabiting parents have increased, childbearing in higher order unions remains mainly associated with marriage. It may be that higher union instability (Andersson 2002, Bramlett and Mosher 2002), lack of legal protection (Sánchez Gassen and Perelli-Harris 2015) and lower relationship quality of cohabiting unions (Brown 2003, Wiik et al. 2009) make cohabitation a less desirable setting for subsequent births after union dissolution.

Fourth, the thesis provides information on the type of the second union on the onset of the partnership (Chapter III). Although some previous studies have suggested that repartnering is likely to start with cohabitation (Blanc 1987, Kiernan and Estaugh 1993, Poortman 2007), this thesis documents that this is a universal pattern across Western societies. Even in countries with strong family norms, direct marriages in repartnering are very rare. The result implies that women who experience union dissolution may be more cautious about further relationships and thus opt, at least at the beginning, for less formal relationships (Furstenberg and Spanier 1984, Poortman 2007). Cohabitation, to a certain extent, offers similar benefits to marriage in terms of companionship, sexual intimacy and advantages related to combining households, but it is easier to terminate and at presumably lower costs than highly legally regulated marriage.

Fifth, this thesis improves our knowledge of the contemporary state of family demographic changes across Western societies. Using the most recent,

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high quality, comparable data in family research, this thesis provides a most up-to-date picture of partnership behaviour by female birth cohorts in 14 European countries and the United States. More specifically, it describes the levels of first union formation, first union dissolution and repartnering by union type for women born in 1945-54, 1955-64 and 1965-74 (Chapter III). The particular added value of this thesis is the systematic description of repartnering dynamics, i.e. level, type and pace of second union formation, across Western societies. Although recent changes in the first union formation and dissolution in Europe and the US have been well documented (Andersson 2002, 2003, Billari and Liefbroer 2010, Elzinga and Liefbroer 2007, Kalmijn 2007, Perelli-Harris and Lyons-Amos 2015, Sobotka 2008, Sobotka and Toulemon 2008), very little was known about the prevalence of repartnering at the population level and the pace at which repartnering occurs. By calculating the percentage of women who ever repartner by the time of the survey at the population level, this thesis quantifies the immediate consequence of increasing union instability and the shift from marriage to less stable cohabitation. An additional novel finding of this thesis is also the documentation of the strong positive association between the prevalence of repartnering at the population level and the pace of repartnering in Western societies.

Sixth, by presenting recent trends across female birth cohorts, this thesis contributes also to the debate on the longstanding differences in family patterns related to cultural traditions (Hajnal 1965, Reher 1998) or welfare states regimes and institutional arrangements (Esping-Andersen 1990, 1999). The comparative approach of this thesis allowed us to examine the differences in partnership behaviour between the US and Europe and across various European countries. Prior research has emphasised the distinctive family patterns of American women, characterised by the highly unstable cohabiting unions and high divorce and repartnering rates (Andersson 2003, Cherlin 2009, Heuverline et al. 2003, Raley 2001). In addition, studies on European countries have highlighted considerable differences in marriage and divorce rates and the prevalence of cohabitation across the continent (Kiernan 2002, 2003, Sobotka 2008, Sobotka and Toulemon 2008). The results in Chapter III suggest striking persistent cross-national differences in first union type, and the prevalence and the pace of repartnering, which in turns correspond to the

differences in union dissolution levels, across birth cohorts. Therefore, although Western societies follow this same trend towards the greater deinstitutionalisation of marriage, substantial cross-national differences in partnership patterns have remained.

Seventh, this thesis contributes to the research field examining underlying mechanism of partnership behaviour in comparative perspective. It uses a cross-national approach in order to assess whether the individual level demographic determinants of repartnering have a universal effect on second union formation across Europe or whether the results are limited to one country (Yu 2015). Previous studies have differed in the model specifications (included co-variates), definitions and analytical samples, which make the findings not always directly comparable. Therefore, adapting these same methodological approaches and data sets provided highly comparable results on the effect of women's age and children at dissolution and the role of first union type in repartnering process. Finally, this thesis contributes to previous literature by examining determinants of repartnering in countries which, to the best of our knowledge, have not been studied before such as Bulgaria, Estonia, Hungary, Poland, and Spain.

Finally, as demonstrated in the NOA framework, this thesis emphasises the importance to integrate both the micro- and the macro-perspectives in family demographic research. Our results document that although individual characteristics are crucial in explaining women's repartnering behaviour within a single country, they may only partially account for the cross-national differences in second union formation. Hence, given that countries differ in socio-economic and institutional arrangements as well as in cultural traditions, the inclusion of the country-specific context in which repartnering occurs, may provide a valuable explanatory level for why women in one country have higher risks of repartnering than in others.

VI.5 Limitations

As with most studies, this thesis has some limitations. First, several data issues have to be acknowledged. All surveys included in the Harmonized Histories suffer from their own limitations, for example low response rates in the large urban areas (Moscow and St. Petersburg) in the Russian GGS or missing information on the start date of some first unions in the BHPS (for details, see Perelli-Harris et al. 2010). Nevertheless, surveys available in the Harmonized Histories have been widely used in the family demographic research (Perelli-Harris et al. 2010, 2012), and studies validating the quality of the GGS data using official statistics confirmed a generally high quality of the nuptiality and fertility data for birth cohorts after 1945 (Vergauwen et al. 2015).

Furthermore, the data used in this thesis is retrospective and hence, particularly reporting of past cohabiting unions may be a subject to recall error or underreporting if non-marital unions were of a very short duration or not socially accepted (Hayford and Morgan 2008, Teitler et al. 2006). Consequently, our analyses may particularly affect the prevalence of cohabitation, in both the first and subsequent partnership, among women born in 1945-54. In this case, we would slightly underestimate the repartnering levels in the oldest birth cohorts. In addition, problems with start and end of cohabiting unions may have implications for measuring the pace of repartnering, although here the direction is less clear. Finally, underreporting of cohabiting unions may affect birth risks following dissolution of first fertile union if women's current partnership status is defined as single rather than cohabitation.

In addition, although Harmonized Histories represents different family patterns across Europe (Reher 1998, Sobotka and Toulemon 2008), the limited number of countries does not allowed us to use multilevel modelling and control for contextual effects (Bryan and Jenkins 2013, Stegmüller 2013). Finally, the Harmonized Histories lacks in-depth co-variables which may help better understand repartnering behaviour, such as information on labour force attachment which has been shown to affect women's repartnering (Chapter II.4.4) or partner's socioeconomic status which may be important for childbearing within repartnering (Chapter V.6).

Apart from data issues, this thesis examined only women's repartnering, leaving the analyses of gender differences in second union formation in Western societies for future research. Focusing only on women was mainly motivated by the fact that women traditionally obtain legal custody over minor children after separation (Beaumont and Manson 2014), and because the economic deterioration following separation is much greater for women and their children than for men. Furthermore, the availability and the quality of the data did not allow us to examine men's repartnering behaviour in Western societies in comparable fashion to the analyses conducted for women. In addition, our decision about excluding men from the analyses was also motivated by the fact that men are likely to give less reliable information regarding their fertility and partnership histories (Rendall et al. 1999). Nevertheless, we acknowledge that gender has been identified in the literature as the most important determinant of repartnering (Beaujouan 2012, Bernhardt and Goldscheider 2002, de Graaf and Kalmijn 2003, Ivanova et al. 2013, Poortman 2007, Stewart 2003, Sweeney 2002, Wu and Schimmele 2005). Previous studies have suggested that men repartner to a greater extent and at the faster pace than women, which may be attributed to the difference in the parenthood status and the presence of children in household (ibid.). Hence, we recognise that males' repartnering dynamics in Europe and the US, and the predictors of men's second union formation may differ from those reported for women.

Third, taking only women's perspectives is especially problematic for Chapter V which examined the role of partnership history on continued childbearing. The analyses would benefit from including information on partner's fertility, as this determines couples' combined number of children and the co-residence of men's pre-union children has been shown affect stepfamily fertility (Chapter II.7.2). For instance, childless men may be willing to have a shared child in order to become father and thus mark their adult status (Ivanova et al. 2014), or they may oppose to have a shared child because of their obligations to children from previous relationships. Furthermore, information on partner's custodial arrangements, which also affects fertility behaviour, would greatly improve the analyses.

Fourth, since partnership history has important implications on childbearing this thesis focused mainly on repartnering in midlife. However, given the evidence of rising divorce rates among older individuals (Brown and Lin 2012, Kennedy and Ruggles 2014) and the higher instability of remarriages than first marital unions (Booth and Edwards 1992, Cherlin 1978, Furstenberg and Spanier 1984, Teachman 2008), repartnering behaviour of older adults constitutes an increasingly important area of research. In addition, looking at women in midlife implies that most women who entered the re-partner market were either divorced or separated from a cohabiting partner. By contrast, women who experienced a partner's death, which usually happens later in life, were less prevalent in the samples and hence, it was impossible to analyse their repartnering behaviour in more detail. However, it has to be recognised that the death of the partner may be an important exit type of the first union for women in older birth cohorts for which divorce may have been either difficult to obtain or stigmatised. In addition, in the younger birth cohorts in countries like Russia where male mortality is high, widowhood may be an important pathway to second union formation even in midlife.

VI.6 Conclusion

Despite these limitations, this doctoral thesis strongly improves our knowledge of family demographic changes observed since 1960s in Western societies. We started off with documenting the increasing levels of union dissolution, which reflected both rising divorce rates and the prevalence of less stable cohabiting unions, in Europe and the US, and then demonstrated the changing composition of the population at risk of repartnering in terms of first union type across birth cohorts (Chapter III). In line with the process of the deinstitutionalisation of marriage, the thesis directly addressed the changes in first partnership behaviour by examining whether the type of the dissolved first unions, i.e. marriage (direct or preceded by cohabitation) or cohabitation which has not been transformed into marriage, matters for the family demographic behaviour following union dissolution. We argued throughout the thesis that the differences between cohabiting and married women in a range of individual characteristics, such as gender role attitudes, subjective wellbeing, or fertility behaviour (Andersson and Philipov 2002, Clarkberg et al. 1995,

Perelli-Harris 2014, Soons and Kalmijn 2009, Wiik et al. 2009, Wu and Musick 2008), as well as the differences in the incentives to repartner and the opportunities and constraints in the partner market (Chapter II.5), may result in higher repartnering risks among previously cohabiting than married women. However, the empirical analyses did not support our expectation as it has been demonstrated that in the vast majority of European countries, women cohabiting and married in first union do not differ in their repartnering behaviour once their demographic characteristics at union dissolution are taken into account (Chapter IV).

By the same token, given that many dissolved marriages, but recently also cohabiting unions, involve children, this thesis examined how mothers' continued childbearing after union dissolution is shaped by the type of the first fertile union (Chapter V). Using union type as a proxy for contraceptive use and attitudes towards family, we expected that women who entered motherhood in cohabitation would have higher birth risks after separation than women married at first birth. Again, our hypothesis was not confirmed as the results indicated that the type of the first fertile union does not matter for mothers' subsequent birth risks after separation.

Moving along the life-course events, this thesis clearly showed an increase in the prevalence of repartnering in all studied countries across birth cohorts (Chapter III). Since repartnering poses a chance for childbearing, either to strengthen the relationship, to enter parenthood for the childless partner, or to provide a sibling to pre-union children, and indeed a half of new established unions produce children, we examined also the role of current partnership contexts on mothers' continued childbearing following separation (Chapter V). Not surprising, we confirmed the importance of repartnering for fertility. However, although the vast majority of second unions start with cohabitation (Chapter III), this thesis demonstrated, at least for the population of separated mothers whose first child was born within partnership, that childbearing after union dissolution depends on repartnering type. The birth risks are significantly higher for mothers who married the subsequent partner than for women cohabiting in repartnering. However, the effect of the current

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partnership type after separation on continued childbearing does not vary by the type of the first fertile union.

Apart from examining the role of cohabitation in the process of the deinstitutionalisation of marriage and its implications for further family demographic behaviour - which was the main focus of this thesis, the original findings presented above contributed also in numerous other ways to the existing knowledge. The thesis quantified the new family demographic behaviour, by providing most up-to-date figures on the prevalence of union dissolution, repartnering and cohabitation in 14 European countries and the US. Furthermore, by looking at changes in partnership behaviour across birth cohorts, it improved our understanding of the long-term persistence of partnership patterns across Western societies. In addition, by adopting a cross-national perspective and using comparable data and methods, this thesis proved that the effect of demographic characteristics on women's repartnering in Europe is universal and not country-specific. However, we also showed that the variation in repartnering risks in Europe is only partially explained by women's demographic characteristics at union dissolution, which are considered the key predictors of women's repartnering chances in single country studies. The last finding points back to the importance of the NOA framework which demonstrates that repartnering is shaped by (i) individual characteristics and (ii) the socio-economic, institutional and cultural context in which it occurs, which in turn, determine the interplay of women's needs to repartner, their opportunities to meet and mate with potential partners and their attractiveness in the repartner market.

All in all, given that repartnering has wide-ranging implications for individuals' lives, families and societies, we believe that this thesis not only provides a valuable contribution to existing literature but also an important reference point for further family demographic research.

Appendix A (Chapter III)

Appendix A 1: Life tables - description of the samples: number of women and events (second union formation), by birth cohort (counts only, no weights)

Country	1945-54		1955-64		1965-74	
	women	event	women	event	women	event
Austria	-	-	-	-	445	307
Belgium	118	75	168	100	150	109
Bulgaria	72	30	147	57	168	70
Estonia	297	181	343	196	280	195
France	289	137	361	188	332	180
Italy	301	71	446	106	317	86
Lithuania	133	41	248	71	193	68
NDL	188	108	230	149	202	161
Norway	407	241	525	368	614	434
Poland	-	-	-	-	147	36
Romania	140	48	117	52	131	60
Russia	379	207	431	234	330	182
Spain	91	21	168	71	136	57
UK	258	174	345	209	374	266
US	806	576	1,742	1,251	905	605

Appendix A 2: Life tables - description of the samples for each country by first union type and birth cohort (counts only, no weights)

Country	1955-64		1965-74	
	marital	cohabiting	Marital	cohabiting
Austria	34	19	188	257
Belgium	145	23	79	71
Bulgaria	139	8	137	31
Estonia	288	55	176	104
France	187	175	98	235
Italy	353	93	195	122
Lithuania	235	13	157	36
NDL	147	83	64	138
Norway	313	212	151	463
Poland	-	-	117	30
Romania	103	14	97	34
Russia	385	46	259	71
Spain	150	18	104	32
UK	256	89	171	203
US	1193	549	506	399

Appendix B (Chapter IV)

Appendix B 1: Correlation coefficient between age at first union formation and age at first union dissolution by country

	Corr. coef.	p-value
Belgium	0.283	0.000
Bulgaria	0.218	0.000
Estonia	0.487	0.000
France	0.326	0.000
Hungary	0.329	0.000
Italy	0.328	0.000
Lithuania	0.467	0.000
NDL	0.443	0.000
Norway	0.347	0.000
Poland	0.409	0.000
Romania	0.325	0.000
Russia	0.436	0.000
Spain	0.266	0.000
UK	0.420	0.000

Weights have been applied if available.

Appendix B 2: Testing for collinearity - Variance Inflation factor (VIF)

	First union type	Presence of children at union dissolution	Age at first union dissolution	Age at first union formation	Mean VIF
Belgium	1.62	1.55	1.36	1.26	1.45
Bulgaria	1.17	1.17	1.13	1.12	1.15
Estonia	1.49	1.47	1.11	1.10	1.29
France	1.55	1.39	1.32	1.31	1.39
Hungary	1.37	1.30	1.25	1.23	1.28
Italy	1.51	1.45	1.45	1.33	1.43
Lithuania	1.44	1.38	1.14	1.12	1.27
NDL	1.87	1.81	1.57	1.39	1.66
Norway	1.71	1.55	1.48	1.41	1.54
Poland	1.34	1.30	1.10	1.09	1.21
Romania	1.28	1.24	1.18	1.08	1.19
Russia	1.43	1.42	1.31	1.25	1.35
Spain	1.30	1.28	1.28	1.19	1.26
UK	1.84	1.58	1.52	1.33	1.57

Weights have been applied if available.

Appendix B

Appendix B 3: Selection of the best fitted single-country model according to the log-likelihood ratio test. Unweight data

	Belgium	Bulgaria	Estonia	France	Hungary	Italy	Lithuania	NDL	Norway	Poland	Romania	Russia	Spain	The UK
M1														
M2a														
M2b														
M3a														
M3b											xx			
M3c												x	x	
M4a														
M4b													x	
M5a			x		x									
M5b														
M6a			x		x									
M6b													x	
M7a														
M7b		xx	x	x		xx	xx	xx				x		
M8a	xx	x	xx	xx	x	x	x	x	xx	xx	x	xx		x
M8b		x		x	xx				xx	xx	x	x	xx	xx
M8c						x	x	xx						

Note: xx – the best fitted model

x – the second best fitted model

Models M1-M8c are explained in Appendix B 4.

Appendix B 4: Odds ratios from various discrete-time hazard models of repartnering, women born in 1950-69 who entered first union by age 40 and subsequently dissolved it; Single country models

Belgium	M1	M2a	M2b	M3a	M3b	M3c	M4a	M4b	M5a	M5b	M6a	M6b	M7a	M7b	M8a	M8b	M8c
Duration since first union dissolution in years (ref.<1)																	
1-2 years	1.13	1.15	1.13	1.14	1.14	1.12	1.12	1.12	1.14	1.12	1.12	1.12	1.11	1.12	1.14	1.12	1.12
2-3 years	1.23	1.26	1.24	1.25	1.24	1.22	1.23	1.22	1.25	1.22	1.23	1.22	1.22	1.23	1.25	1.22	1.22
3-5 years	0.91	0.93	0.91	0.93	0.93	0.90	0.91	0.90	0.94	0.90	0.92	0.90	0.92	0.93	0.94	0.91	0.92
5-7 years	0.54*	0.56	0.53*	0.56	0.55	0.53*	0.54*	0.53*	0.56	0.52*	0.54*	0.53*	0.55	0.55	0.57	0.53*	0.55
7-10 years	0.68	0.70	0.66	0.69	0.68	0.63	0.66	0.64	0.70	0.63	0.66	0.64	0.67	0.67	0.70	0.64	0.66
First union type (ref. marriage)																	
cohabitation	1.12	1.28	1.22	1.15	1.10	1.05	0.99	1.01	1.11	1.09	1.07	1.02	0.82	0.88	0.91	0.89	0.83
Birth cohort (ref. 1950-1959)																	
1960-1964	1.47*	1.56**	1.44*	1.56**	1.49*	1.36	1.39*	1.36	1.50*	1.37	1.39	1.36	1.38	1.38	1.49*	1.36	1.38
Women's age at first union formation (ref. 20 up to 24)																	
younger than 20		0.73		0.76	0.75				0.69*						0.69*		
24 and older		0.37***		0.36***	0.36***				0.42**						0.40**		
Women's age at first union formation (cont.)																	
			0.96			0.95*				0.97						0.97	
First union duration (ref. less than 4 years)																	
4 up to 7 years				1.14							1.25			1.35			
7 up to 10 years				0.89							1.16			1.23			
more than 10 years				0.83							1.38			1.41			
First union duration (cont.)																	
					0.98	0.97						1.00					1.00
Women's age at first union dissolution (ref. 25-30)																	
younger than 25							1.35		1.32		1.48		1.32	1.47	1.29		1.34
30 up to 35							0.82		0.93		0.78		0.87	0.84	1.00		0.86
35 and older							0.77		0.82		0.69		0.81	0.75	0.89		0.79
Women's age at first union dissolution (cont.)																	
								0.97*		0.98		0.97				0.99	
Presence of children (ref. No)																	
Yes													0.72	0.70	0.68	0.69	0.72
Constant	0.0097***	0.012***	0.024***	0.013***	0.016***	0.040***	0.011***	0.024***	0.013***	0.035***	0.0089***	0.025***	0.014***	0.011***	0.017***	0.042***	0.014***
Observations	15649	15649	15649	15649	15649	15649	15649	15649	15649	15649	15649	15649	15649	15649	15649	15649	15649
Log Likelihood	-907.6	-900.9	-905.9	-899.9	-899.4	-904.2	-904.5	-905.5	-899.2	-905.0	-904.0	-905.5	-903.2	-902.4	-897.5	-903.2	-903.2
aic	1831.3	1821.8	1829.9	1825.8	1820.7	1828.3	1831.1	1829.1	1824.4	1829.9	1835.9	1831.1	1830.4	1834.9	1822.9	1828.4	1832.4
p	0.0045	0.0001	0.0045	0.0003	0.0001	0.0023	0.0023	0.0030	0.0001	0.0038	0.0081	0.0054	0.0018	0.0042	0.0000	0.0026	0.0031

Appendix B

Bulgaria	M1	M2a	M2b	M3a	M3b	M3c	M4a	M4b	M5a	M5b	M6a	M6b	M7a	M7b	M8a	M8b	M8c
Duration since first union dissolution in years (ref.<1)																	
1-2 years	1.02	1.03	1.02	1.04	1.02	1.02	1.02	1.01	1.02	1.02	1.03	1.01	1.02	1.03	1.02	1.02	1.02
2-3 years	0.64	0.64	0.64	0.65	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
3-5 years	0.56	0.57	0.57	0.58	0.57	0.57	0.56	0.56	0.57	0.57	0.57	0.56	0.57	0.57	0.57	0.57	0.57
5-7 years	0.53	0.53	0.54	0.53	0.52	0.53	0.51	0.52	0.52	0.53	0.52	0.52	0.52	0.53	0.52	0.53	0.52
7-10 years	0.32**	0.33**	0.34**	0.31**	0.31**	0.32**	0.30**	0.31**	0.31**	0.32**	0.31**	0.31**	0.31**	0.31**	0.31**	0.32**	0.31**
First union type (ref. marriage)																	
cohabitation	1.61	1.83	1.71	1.50	1.45	1.31	1.40	1.28	1.58	1.38	1.45	1.31	1.10	1.14	1.23	1.08	1.16
Birth cohort (ref. 1950-1959)																	
1960-1964	1.11	1.09	1.12	0.84	0.92	0.93	0.91	0.93	0.92	0.97	0.84	0.94	0.94	0.86	0.96	1.02	0.96
Women's age at first union formation (ref. 20 up to 24)																	
younger than 20		1.00		1.08	1.04				0.93						0.97		
24 and older		0.46		0.42*	0.42*				0.55						0.54		
Women's age at first union formation (cont.)																	
			0.90**			0.88***				0.93						0.92*	
First union duration (ref. less than 4 years)																	
4 up to 7 years				1.01							1.19			1.29			
7 up to 10 years				1.03							1.46			1.54			
more than 10 years				0.41**							0.76			0.79			
First union duration (cont.)																	
					0.95*	0.94**						1.01					1.02
Women's age at first union dissolution (ref. 25-30)																	
younger than 25							1.29		1.20		1.41		1.25	1.39	1.14		1.33
30 up to 35							0.79		0.81		0.99		0.83	1.06	0.84		0.77
35 and older							0.30*		0.32*		0.41		0.33*	0.45	0.35*		0.28**
Women's age at first union dissolution (cont.)																	
								0.94**		0.95*		0.93***				0.96	
Presence of children (ref. No)																	
Yes													0.61	0.58	0.60	0.55*	0.61
Constant	0.0072***	0.0078***	0.054***	0.012***	0.014***	0.16*	0.0094***	0.053***	0.010***	0.15*	0.0086***	0.062***	0.014***	0.012***	0.015***	0.22	0.012***
Observations	19897	19897	19897	19897	19897	19897	19897	19897	19897	19897	19897	19897	19897	19897	19897	19897	19897
Log Likelihood	-549.5	-547.1	-545.7	-540.7	-543.5	-541.4	-543.1	-544.0	-542.0	-542.4	-541.4	-543.9	-541.5	-539.6	-540.3	-540.3	-541.4
aic	1115.0	1114.1	1109.4	1107.4	1109.0	1102.8	1108.2	1106.1	1109.9	1104.9	1110.8	1107.9	1107.1	1109.2	1108.6	1102.5	1108.8
p	0.0045	0.0001	0.0045	0.0003	0.0001	0.0023	0.0023	0.0030	0.0001	0.0038	0.0081	0.0054	0.0018	0.0042	0.0000	0.0026	0.0031

Exponentiated coefficients. Significance level: *p<0.05, **p<0.01, ***p<0.001: Note: Women's experiences are censored at 2005. Weights have been applied if available.

Appendix B

Estonia	M1	M2a	M2b	M3a	M3b	M3c	M4a	M4b	M5a	M5b	M6a	M6b	M7a	M7b	M8a	M8b	M8c
Duration since first union dissolution in years (ref.<1)																	
1-2 years	1.24	1.23	1.24	1.24	1.24	1.24	1.25	1.24	1.24	1.24	1.24	1.24	1.25	1.25	1.24	1.24	1.25
2-3 years	0.84	0.85	0.85	0.85	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
3-5 years	0.72*	0.73	0.74	0.74	0.74	0.75	0.74	0.74	0.74	0.75	0.74	0.74	0.74	0.74	0.74	0.75	0.74
5-7 years	0.37***	0.38***	0.39***	0.38***	0.38***	0.38***	0.37***	0.38***	0.38***	0.38***	0.38***	0.38***	0.37***	0.38***	0.38***	0.38***	0.38***
7-10 years	0.46***	0.48***	0.49***	0.47***	0.47***	0.47***	0.46***	0.46***	0.46***	0.47***	0.46***	0.46***	0.46***	0.46***	0.46***	0.47***	0.46***
First union type (ref. marriage)																	
cohabitation	1.21	1.37*	1.36*	1.16	1.13	1.13	1.07	1.07	1.14	1.14	1.13	1.12	1.07	1.12	1.13	1.13	1.11
Birth cohort (ref. 1950-1959)																	
1960-1964	1.36**	1.23	1.21	1.24	1.22	1.20	1.22	1.23*	1.19	1.20	1.19	1.21	1.22	1.19	1.19	1.20	1.20
Women's age at first union formation (ref. 20 up to 24)																	
younger than 20		1.33*		1.26*	1.25*				1.09						1.10		
24 and older		0.52**		0.50***	0.50***				0.71						0.70		
Women's age at first union formation (cont.)																	
			0.89***			0.90***				0.95*						0.95*	
First union duration (ref. less than 4 years)																	
4 up to 7 years				0.80							1.03			1.04			
7 up to 10 years				0.76							1.25			1.28			
more than 10 years				0.51***							1.45			1.49			
First union duration (cont.)																	
					0.94***	0.94***						1.04					1.03
Women's age at first union dissolution (ref. 25-30)																	
younger than 25							1.53***		1.44**		1.71**		1.52***	1.72***	1.43**		1.66***
30 up to 35							0.91		0.98		0.79		0.91	0.79	0.98		0.84
35 and older							0.36***		0.39***		0.29***		0.36***	0.29***	0.40***		0.28***
Women's age at first union dissolution (cont.)																	
								0.93***		0.94***		0.91***				0.95***	
Presence of children (ref. No)																	
Yes													0.98	0.93	0.93	0.93	0.93
Constant	0.0098***	0.0096***	0.12***	0.013***	0.016***	0.15***	0.011***	0.078***	0.011***	0.15***	0.0095***	0.12***	0.011***	0.010***	0.011***	0.16***	0.0096***
Observations	41010	41010	41010	41010	41010	41010	41010	41010	41010	41010	41010	41010	41010	41010	41010	41010	41010
Log Likelihood	-1757.1	-1745.7	-1740.8	-1736.0	-1731.9	-1727.6	-1728.4	-1730.6	-1726.8	-1728.4	-1727.0	-1729.4	-1728.4	-1726.9	-1726.7	-1728.3	-1727.6
aic	3530.3	3511.4	3499.6	3497.9	3485.8	3475.2	3478.9	3479.1	3479.5	3476.8	3482.0	3478.8	3480.8	3483.8	3481.3	3478.6	3481.3
p	0.0045	0.0001	0.0045	0.0003	0.0001	0.0023	0.0023	0.0030	0.0001	0.0038	0.0081	0.0054	0.0018	0.0042	0.0000	0.0026	0.0031

Exponentiated coefficients. Significance level: *p<0.05, **p<0.01, ***p<0.001: Note: Women's experiences are censored at 2005. Weights have been applied if available.

Appendix B

France	M1	M2a	M2b	M3a	M3b	M3c	M4a	M4b	M5a	M5b	M6a	M6b	M7a	M7b	M8a	M8b	M8c
Duration since first union dissolution in years (ref.<1)																	
1-2 years	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.24	1.25	1.25	1.25	1.25	1.25	1.25
2-3 years	1.36	1.36	1.37	1.36	1.36	1.36	1.37	1.36	1.37	1.36	1.37	1.36	1.39	1.38	1.39	1.38	1.39
3-5 years	0.92	0.92	0.92	0.91	0.91	0.91	0.93	0.91	0.93	0.91	0.93	0.91	0.94	0.95	0.95	0.93	0.94
5-7 years	0.47**	0.47**	0.47**	0.47**	0.46**	0.46**	0.47**	0.46**	0.47**	0.46**	0.47**	0.46**	0.48**	0.49**	0.49**	0.48**	0.48**
7-10 years	0.65	0.65	0.65	0.64	0.61*	0.61*	0.62	0.61*	0.63	0.61*	0.63	0.61*	0.65	0.65	0.65	0.64	0.65
First unin type (ref. marriage)																	
cohabitation	0.97	1.01	1.04	0.80	0.79	0.81	0.81	0.80	0.83	0.82	0.79	0.81	0.73*	0.73*	0.75*	0.75*	0.73*
Birth cohort (ref. 1950-1959)																	
1960-1964	1.39**	1.36*	1.34*	1.26	1.19	1.17	1.18	1.18	1.18	1.18	1.17	1.18	1.17	1.15	1.16	1.20	1.18
Women's age at first union formation (ref. 20 up to 24)																	
younger than 20		1.02		1.08	1.09				0.95						1.04		
24 and older		0.72		0.66*	0.65*				0.86						0.79		
Women's age at first union formation (cont.)																	
		0.95*				0.94**				0.99						0.97	
First union duration (ref. less than 4 years)																	
4 up to 7 years				1.06							1.27			1.35			
7 up to 10 years				0.68*							0.97			1.19			
more than 10 years				0.50***							1.03			1.29			
First union duration (cont.)																	
					0.95***	0.95***						1.00					1.01
Women's age at first union dissolution (ref. 25-30)																	
younger than 25							1.57**		1.54**		1.59**		1.44*	1.58**	1.35		1.47*
30 up to 35							1.00		1.02		1.01		1.09	1.04	1.15		1.07
35 and older							0.49***		0.50***		0.50*		0.55**	0.52*	0.58**		0.52*
Women's age at first union dissolution (cont.)																	
								0.94***		0.95***		0.94**				0.96***	
Presence of children (ref. No)																	
Yes													0.66**	0.64**	0.63**	0.64**	0.66**
Constant	0.0092***	0.0096***	0.028***	0.015***	0.019***	0.075***	0.011***	0.062***	0.012***	0.073***	0.011***	0.066***	0.015***	0.013***	0.015***	0.090***	0.014***
Observations	41469	41469	41469	41469	41469	41469	41469	41469	41469	41469	41469	41469	41469	41469	41469	41469	41469
Log Likelihood	-1678.5	-1675.8	-1673.6	-1663.6	-1661.4	-1658.6	-1658.9	-1659.5	-1658.5	-1659.3	-1657.7	-1659.5	-1654.5	-1652.9	-1653.3	-1654.3	-1654.4
aic	3373.1	3371.6	3365.3	3353.2	3344.7	3337.2	3339.9	3337.1	3343.1	3338.6	3343.3	3339.0	3332.9	3335.9	3334.6	3330.6	3334.8
p	0.0045	0.0001	0.0045	0.0003	0.0001	0.0023	0.0023	0.0030	0.0001	0.0038	0.0081	0.0054	0.0018	0.0042	0.0000	0.0026	0.0031

Exponentiated coefficients. Significance level: *p<0.05, **p<0.01, ***p<0.001: Note: Women's experiences are censored at 2005. Weights have been applied if available.

Appendix B

Hungary	M1	M2a	M2b	M3a	M3b	M3c	M4a	M4b	M5a	M5b	M6a	M6b	M7a	M7b	M8a	M8b	M8c
Duration since first union dissolution in years (ref.<1)																	
1-2 years	1.06	1.07	1.07	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.07	1.07	1.06
2-3 years	0.83	0.85	0.85	0.85	0.84	0.84	0.83	0.83	0.85	0.84	0.83	0.84	0.84	0.84	0.85	0.84	0.84
3-5 years	0.83	0.86	0.86	0.87	0.85	0.86	0.85	0.84	0.86	0.86	0.85	0.86	0.85	0.86	0.87	0.86	0.86
5-7 years	0.45**	0.47**	0.47**	0.48**	0.46**	0.47**	0.47**	0.46**	0.48**	0.47**	0.47**	0.47**	0.47**	0.47**	0.48**	0.47**	0.47**
7-10 years	0.65*	0.68	0.69	0.69	0.66	0.67	0.67	0.65*	0.69	0.67	0.68	0.67	0.67	0.69	0.70	0.68	0.68
First union type (ref. marriage)																	
cohabitation	1.25	1.56*	1.71**	1.22	1.24	1.34	1.16	1.15	1.27	1.34	1.24	1.34	1.10	1.19	1.18	1.26	1.17
Birth cohort (ref. 1950-1959)																	
1960-1964	1.10	1.07	1.00	1.00	0.95	0.89	0.92	0.90	0.94	0.89	0.90	0.89	0.92	0.89	0.94	0.89	0.91
Women's age at first union formation (ref. 20 up to 24)																	
younger than 20		1.57***		1.63***	1.64***				1.41*						1.48**		
24 and older		0.67		0.61*	0.60*				0.98						0.95		
Women's age at first union formation (cont.)																	
			0.90***			0.89***				0.95*						0.94**	
First union duration (ref. less than 4 years)																	
4 up to 7 years				0.69*							0.93			1.00			
7 up to 10 years				0.63*							1.21			1.31			
more than 10 years				0.43***							1.74*			1.89*			
First union duration (cont.)																	
					0.94***	0.94***						1.06*					1.03
Women's age at first union dissolution (ref. 25-30)																	
younger than 25							1.72***		1.55**		1.91**		1.67**	1.92**	1.46*		1.82***
30 up to 35							0.68		0.68		0.50**		0.68	0.50**	0.69		0.62*
35 and older							0.51***		0.50**		0.34***		0.51**	0.34***	0.52**		0.38**
Women's age at first union dissolution (cont.)																	
								0.93***		0.94***		0.89***				0.95***	
Presence of children (ref. No)																	
Yes													0.86	0.81	0.77	0.78	0.81
Constant	0.0094***	0.0077***	0.088***	0.012***	0.014***	0.19***	0.010***	0.086***	0.0089***	0.19***	0.0093***	0.19***	0.012***	0.010***	0.011***	0.23**	0.010***
Observations	35451	35451	35451	35451	35451	35451	35451	35451	35451	35451	35451	35451	35451	35451	35451	35451	35451
Log Likelihood	-1865.6	-1852.3	-1847.9	-1834.6	-1830.8	-1826.4	-1831.4	-1830.1	-1827.1	-1826.4	-1828.1	-1826.4	-1830.8	-1827.1	-1825.4	-1824.9	-1829.6
aic	3747.2	3724.7	3713.7	3695.1	3683.5	3672.9	3684.8	3678.2	3680.3	3672.9	3684.2	3672.9	3685.6	3684.2	3678.9	3671.9	3685.3
p	0.0045	0.0001	0.0045	0.0003	0.0001	0.0023	0.0023	0.0030	0.0001	0.0038	0.0081	0.0054	0.0018	0.0042	0.0000	0.0026	0.0031

Exponentiated coefficients. Significance level: *p<0.05, **p<0.01, ***p<0.001: Note: Women's experiences are censored at 2005. Weights have been applied if available.

Appendix B

Italy	M1	M2a	M2b	M3a	M3b	M3c	M4a	M4b	M5a	M5b	M6a	M6b	M7a	M7b	M8a	M8b	M8c
Duration since first union dissolution in years (ref.<1)																	
1-2 years	0.94	0.94	0.94	0.94	0.94	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.94	0.94	0.94	0.93	0.94
2-3 years	0.81	0.81	0.80	0.80	0.80	0.79	0.78	0.78	0.79	0.78	0.78	0.78	0.79	0.79	0.79	0.79	0.79
3-5 years	1.12	1.12	1.10	1.08	1.07	1.05	1.04	1.04	1.06	1.05	1.04	1.05	1.05	1.05	1.06	1.05	1.05
5-7 years	1.29	1.27	1.24	1.18	1.15	1.10	1.09	1.09	1.12	1.10	1.09	1.10	1.10	1.10	1.12	1.11	1.10
7-10 years	0.77	0.76	0.72	0.67	0.64	0.60	0.58	0.59	0.61	0.60	0.59	0.60	0.59	0.60	0.61	0.60	0.59
First union type (ref. marriage)																	
cohabitation	1.85**	1.99***	2.06***	1.41	1.38	1.39	1.64*	1.55*	1.47	1.41	1.55	1.41	1.37	1.39	1.35	1.28	1.34
Birth cohort (ref. 1950-1959)																	
1960-1964	1.56*	1.61*	1.52*	1.41	1.25	1.18	1.15	1.20	1.16	1.17	1.16	1.18	1.12	1.15	1.15	1.17	1.12
Women's age at first union formation (ref. 20 up to 24)																	
younger than 20		0.69		0.69	0.71				0.54*						0.57*		
24 and older		0.69		0.58*	0.57*				1.06						1.00		
Women's age at first union formation (cont.)																	
			0.97			0.94***				1.03						1.02	
First union duration (ref. less than 4 years)																	
4 up to 7 years				0.85							1.04			1.15			
7 up to 10 years				0.45*							0.64			0.75			
more than 10 years				0.39**							0.99			1.22			
First union duration (cont.)																	
					0.92***	0.92***						0.97					0.99
Women's age at first union dissolution (ref. 25-30)																	
younger than 25							1.12		1.51		1.05		1.11	1.09	1.43		1.09
30 up to 35							0.54**		0.51**		0.54*		0.55**	0.53**	0.52**		0.56*
35 and older							0.28***		0.27***		0.27***		0.30***	0.26***	0.28***		0.33***
Women's age at first union dissolution (cont.)																	
								0.93***		0.92***		0.94***				0.92***	
Presence of children (ref. No)																	
Yes													0.70	0.70	0.79	0.74	0.73
Constant	0.0022***	0.0027***	0.0049***	0.0054***	0.0071***	0.024***	0.0047***	0.030***	0.0052***	0.023***	0.0051***	0.023***	0.0058***	0.0057***	0.0060***	0.028***	0.0061***
Observations	56695	56695	56695	56695	56695	56695	56695	56695	56695	56695	56695	56695	56695	56695	56695	56695	56695
Log Likelihood	-1185.0	-1182.4	-1183.0	-1171.8	-1169.1	-1167.5	-1163.9	-1168.4	-1158.9	-1167.5	-1162.0	-1167.5	-1161.9	-1160.3	-1158.1	-1166.2	-1161.8
aic	2386.1	2384.9	2384.0	2369.5	2360.1	2355.1	2349.8	2354.9	2343.8	2355.0	2352.1	2355.0	2347.8	2350.5	2344.3	2354.4	2349.6
p	0.0045	0.0001	0.0045	0.0003	0.0001	0.0023	0.0023	0.0030	0.0001	0.0038	0.0081	0.0054	0.0018	0.0042	0.0000	0.0026	0.0031

Exponentiated coefficients. Significance level: *p<0.05, **p<0.01, ***p<0.001: Note: Women's experiences are censored at 2005. Weights have been applied if available.

Appendix B

Lithuania	M1	M2a	M2b	M3a	M3b	M3c	M4a	M4b	M5a	M5b	M6a	M6b	M7a	M7b	M8a	M8b	M8c
Duration since first union dissolution in years (ref.<1)																	
1-2 years	1.51	1.50	1.50	1.50	1.49	1.49	1.50	1.49	1.50	1.49	1.50	1.49	1.51	1.51	1.51	1.50	1.52
2-3 years	1.12	1.12	1.12	1.12	1.12	1.11	1.13	1.11	1.13	1.11	1.13	1.11	1.14	1.15	1.15	1.13	1.15
3-5 years	0.82	0.82	0.82	0.82	0.81	0.81	0.82	0.80	0.83	0.81	0.83	0.81	0.83	0.84	0.84	0.82	0.85
5-7 years	0.60	0.60	0.59	0.58	0.57	0.56	0.58	0.56	0.58	0.56	0.58	0.56	0.58	0.59	0.59	0.57	0.60
7-10 years	0.76	0.75	0.74	0.71	0.68	0.67	0.69	0.66	0.70	0.67	0.71	0.67	0.70	0.72	0.71	0.68	0.72
First union type (ref. marriage)																	
cohabitation	0.87	1.00	1.02	0.89	0.84	0.85	0.76	0.78	0.80	0.85	0.85	0.84	0.62	0.66	0.65	0.68	0.65
Birth cohort (ref. 1950-1959)																	
1960-1964	1.24	1.11	1.08	1.01	0.94	0.90	0.94	0.92	0.94	0.91	0.94	0.91	0.99	1.00	0.99	0.96	1.01
Women's age at first union formation (ref. 20 up to 24)																	
younger than 20		1.32		1.37	1.41				1.13						1.27		
24 and older		0.57		0.55*	0.53*				0.81						0.77		
Women's age at first union formation (cont.)																	
			0.91***			0.89***				0.95						0.92*	
First union duration (ref. less than 4 years)																	
4 up to 7 years				0.91							1.20			1.37			
7 up to 10 years				0.54*							1.11			1.43			
more than 10 years				0.53*							1.99*			2.48*			
First union duration (cont.)																	
					0.94**	0.94**						1.05					1.05
Women's age at first union dissolution (ref. 25-30)																	
younger than 25							1.64*		1.55		1.80*		1.63*	1.97*	1.49		1.85*
30 up to 35							0.48*		0.51*		0.37**		0.49*	0.36**	0.53*		0.42**
35 and older							0.49*		0.53*		0.31***		0.51*	0.30***	0.58		0.33**
Women's age at first union dissolution (cont.)																	
								0.92***		0.94**		0.89***				0.95*	
Presence of children (ref. No)																	
Yes													0.55*	0.49*	0.50**	0.46**	0.49*
Constant	0.0034***	0.0038***	0.032***	0.0057***	0.0070***	0.090**	0.0052***	0.046***	0.0051***	0.089**	0.0043***	0.084**	0.0082***	0.0066***	0.0085***	0.22	0.0066***
Observations	31137	31137	31137	31137	31137	31137	31137	31137	31137	31137	31137	31137	31137	31137	31137	31137	31137
Log Likelihood	-658.8	-654.7	-653.5	-650.8	-650.3	-648.6	-647.4	-649.8	-646.9	-648.7	-645.8	-648.9	-645.2	-642.9	-644.1	-645.3	-644.0
aic	1333.6	1329.3	1325.1	1327.5	1322.6	1317.3	1316.8	1317.5	1319.9	1317.5	1319.7	1317.7	1314.3	1315.8	1316.2	1312.7	1314.0
p	0.0045	0.0001	0.0045	0.0003	0.0001	0.0023	0.0023	0.0030	0.0001	0.0038	0.0081	0.0054	0.0018	0.0042	0.0000	0.0026	0.0031

Exponentiated coefficients. Significance level: *p<0.05, **p<0.01, ***p<0.001: Note: Women's experiences are censored at 2005. Weights have been applied if available.

Appendix B

The Netherlands	M1	M2a	M2b	M3a	M3b	M3c	M4a	M4b	M5a	M5b	M6a	M6b	M7a	M7b	M8a	M8b	M8c
Duration since first union dissolution in years (ref.<1)																	
1-2 years	2.72***	2.73***	2.72***	2.75***	2.75***	2.74***	2.75***	2.73***	2.76***	2.73***	2.75***	2.74***	2.77***	2.77***	2.78***	2.76***	2.77***
2-3 years	1.75*	1.75*	1.74*	1.76*	1.76*	1.74*	1.76*	1.74*	1.77*	1.74*	1.76*	1.74*	1.77*	1.77*	1.78*	1.76*	1.77*
3-5 years	2.55***	2.56***	2.54***	2.54***	2.55***	2.51***	2.54***	2.50***	2.56***	2.50***	2.54***	2.52***	2.59***	2.59***	2.61***	2.56***	2.59***
5-7 years	1.57	1.58	1.56	1.56	1.56	1.54	1.55	1.53	1.56	1.53	1.55	1.54	1.60	1.60	1.61	1.58	1.60
7-10 years	1.07	1.06	1.05	1.03	1.02	1.02	1.00	1.01	1.00	1.01	1.01	1.02	1.03	1.04	1.03	1.04	1.04
First union type (ref. marriage)																	
cohabitation	1.46**	1.49**	1.49**	1.20	1.15	1.15	1.25	1.27	1.26	1.23	1.19	1.15	1.01	0.99	1.03	1.00	0.99
Birth cohort (ref. 1950-1959)																	
1960-1964	1.44**	1.45**	1.41**	1.24	1.21	1.19	1.22	1.23	1.24	1.22	1.20	1.21	1.27	1.26	1.31	1.29	1.25
Women's age at first union formation (ref. 20 up to 24)																	
younger than 20		0.95		0.92	0.94				0.90						1.00		
24 and older		0.78		0.72	0.69				0.87						0.80		
Women's age at first union formation (cont.)																	
			0.98			0.97				1.02						1.00	
First union duration (ref. less than 4 years)																	
4 up to 7 years				1.03							1.03			1.11			
7 up to 10 years				0.80							0.82			0.94			
more than 10 years				0.52**							0.77			0.90			
First union duration (cont.)																	
					0.94***	0.95***						0.96*					0.98
Women's age at first union dissolution (ref. 25-30)																	
younger than 25							0.88		0.87		0.84		0.85	0.85	0.79		0.82
30 up to 35							0.74		0.75		0.84		0.82	0.87	0.83		0.88
35 and older							0.39***		0.39***		0.45**		0.47***	0.51*	0.49**		0.54*
Women's age at first union dissolution (cont.)																	
								0.96***		0.96***		0.99				0.98	
Presence of children (ref. No)																	
Yes													0.62**	0.62**	0.59**	0.58**	0.64*
Constant	0.0039***	0.0040***	0.0061***	0.0061***	0.0078***	0.014***	0.0059***	0.014***	0.0062***	0.012***	0.0065***	0.0092***	0.0073***	0.0073***	0.0076***	0.013***	0.0081***
Observations	26231	26231	26231	26231	26231	26231	26231	26231	26231	26231	26231	26231	26231	26231	26231	26231	26231
Log Likelihood	-1602.0	-1600.8	-1601.3	-1592.9	-1590.4	-1591.4	-1589.6	-1595.1	-1589.1	-1594.8	-1588.6	-1592.7	-1585.1	-1584.5	-1584.3	-1589.5	-1584.6
aic	3220.0	3221.6	3220.5	3211.7	3202.8	3202.9	3201.2	3208.1	3204.2	3209.6	3205.3	3205.4	3194.2	3199.1	3196.6	3201.1	3195.2
p	0.0045	0.0001	0.0045	0.0003	0.0001	0.0023	0.0023	0.0030	0.0001	0.0038	0.0081	0.0054	0.0018	0.0042	0.0000	0.0026	0.0031

Exponentiated coefficients. Significance level: *p<0.05, **p<0.01, ***p<0.001: Note: Women's experiences are censored at 2005. Weights have been applied if available.

Appendix B

Norway	M1	M2a	M2b	M3a	M3b	M3c	M4a	M4b	M5a	M5b	M6a	M6b	M7a	M7b	M8a	M8b	M8c
Duration since first union dissolution in years (ref.<1)																	
1-2 years	1.66***	1.66***	1.66***	1.66***	1.65***	1.65***	1.65***	1.65***	1.65***	1.65***	1.65***	1.65***	1.66***	1.66***	1.66***	1.67***	1.66***
2-3 years	1.81***	1.82***	1.83***	1.81***	1.80***	1.80***	1.80***	1.80***	1.80***	1.80***	1.80***	1.80***	1.81***	1.82***	1.82***	1.83***	1.82***
3-5 years	1.26	1.28	1.27	1.27	1.26	1.26	1.25	1.25	1.26	1.26	1.26	1.26	1.27	1.27	1.28	1.28	1.28
5-7 years	1.19	1.21	1.20	1.20	1.19	1.18	1.17	1.17	1.19	1.18	1.18	1.18	1.19	1.20	1.21	1.22	1.21
7-10 years	0.91	0.91	0.91	0.89	0.88	0.88	0.88	0.87	0.88	0.88	0.89	0.88	0.89	0.91	0.90	0.91	0.91
First union type (ref. marriage)																	
cohabitation	1.39***	1.51***	1.55***	1.24*	1.22	1.23*	1.14	1.12	1.24*	1.23*	1.19	1.23*	0.99	1.05	1.08	1.08	1.06
Birth cohort (ref. 1950-1959)																	
1960-1964	1.42***	1.36**	1.35**	1.27*	1.24*	1.22*	1.23*	1.21*	1.22*	1.22*	1.22*	1.22*	1.23*	1.23*	1.23*	1.23*	1.24*
Women's age at first union formation (ref. 20 up to 24)																	
younger than 20		1.06		1.08	1.09				1.00						1.04		
24 and older		0.55***		0.54***	0.54***				0.66**						0.61***		
Women's age at first union formation (cont.)																	
			0.93***			0.92***				0.96**						0.95***	
First union duration (ref. less than 4 years)																	
4 up to 7 years				0.83							0.90			0.99			
7 up to 10 years				0.86							1.12			1.28			
more than 10 years				0.58***							1.25			1.49*			
First union duration (cont.)																	
					0.96***	0.96***						1.04**					1.03*
Women's age at first union dissolution (ref. 25-30)																	
younger than 25							1.16		1.05		1.19		1.10	1.18	0.95		1.17
30 up to 35							0.71*		0.76*		0.64**		0.72*	0.63**	0.78		0.64**
35 and older							0.47***		0.50***		0.39***		0.49***	0.40***	0.55***		0.35***
Women's age at first union dissolution (cont.)																	
								0.95***		0.96***		0.92***				0.97**	
Presence of children (ref. No)																	
Yes													0.72***	0.68***	0.66***	0.67***	0.67***
Constant	0.0061***	0.0064***	0.029***	0.0090***	0.0100***	0.054***	0.0084***	0.033***	0.0087***	0.054***	0.0081***	0.054***	0.011***	0.0098***	0.012***	0.069***	0.0088***
Observations	57634	57634	57634	57634	57634	57634	57634	57634	57634	57634	57634	57634	57634	57634	57634	57634	57634
Log Likelihood	-3338.1	-3322.6	-3319.6	-3312.7	-3311.6	-3307.5	-3313.1	-3311.4	-3308.1	-3307.5	-3310.9	-3307.5	-3307.2	-3303.8	-3299.8	-3299.4	-3304.1
aic	6692.3	6665.2	6657.3	6651.3	6645.2	6634.9	6648.3	6640.8	6642.2	6634.9	6649.8	6634.9	6638.4	6637.5	6627.5	6620.8	6634.2
p	0.0045	0.0001	0.0045	0.0003	0.0001	0.0023	0.0023	0.0030	0.0001	0.0038	0.0081	0.0054	0.0018	0.0042	0.0000	0.0026	0.0031

Exponentiated coefficients. Significance level: *p<0.05, **p<0.01, ***p<0.001: Note: Women's experiences are censored at 2005. Weights have been applied if available.

Appendix B

Poland	M1	M2a	M2b	M3a	M3b	M3c	M4a	M4b	M5a	M5b	M6a	M6b	M7a	M7b	M8a	M8b	M8c
Duration since first union dissolution in years (ref.<1)																	
1-2 years	1.49	1.50	1.49	1.49	1.48	1.48	1.47	1.47	1.48	1.48	1.48	1.48	1.48	1.48	1.49	1.48	1.48
2-3 years	1.41	1.41	1.41	1.39	1.38	1.38	1.37	1.37	1.38	1.38	1.37	1.38	1.38	1.39	1.39	1.39	1.39
3-5 years	0.85	0.85	0.85	0.83	0.81	0.81	0.81	0.80	0.82	0.81	0.82	0.81	0.82	0.83	0.83	0.83	0.83
5-7 years	1.45	1.46	1.45	1.36	1.32	1.31	1.29	1.28	1.33	1.31	1.32	1.31	1.32	1.34	1.36	1.33	1.34
7-10 years	0.98	0.99	0.98	0.91	0.87	0.86	0.84	0.83	0.88	0.86	0.87	0.85	0.85	0.88	0.89	0.87	0.87
First union type (ref. marriage)																	
cohabitation	1.27	1.55	1.61	1.41	1.40	1.44	1.38	1.31	1.53	1.44	1.48	1.45	1.23	1.33	1.34	1.33	1.31
Birth cohort (ref. 1950-1959)																	
1960-1964	1.37	1.15	1.12	1.03	0.96	0.93	1.03	0.98	0.97	0.94	1.03	0.94	1.06	1.06	1.00	0.96	1.07
Women's age at first union formation (ref. 20 up to 24)																	
younger than 20		1.75**		1.71**	1.71**				1.52*						1.58*		
24 and older		0.57*		0.54*	0.52*				0.71						0.67		
Women's age at first union formation (cont.)																	
			0.88***			0.88***				0.93*						0.92*	
First union duration (ref. less than 4 years)																	
4 up to 7 years				0.93							1.28			1.31			
7 up to 10 years				0.95							1.89*			1.94*			
more than 10 years				0.51**							1.91			2.05*			
First union duration (cont.)																	
					0.94***	0.94***						1.07*					1.03
Women's age at first union dissolution (ref. 25-30)																	
younger than 25							1.39		1.21		1.90**		1.37	1.87**	1.16		1.51
30 up to 35							0.75		0.81		0.65		0.77	0.64	0.83		0.68
35 and older							0.36***		0.41***		0.28***		0.37***	0.28***	0.44**		0.26**
Women's age at first union dissolution (cont.)																	
								0.93***		0.94***		0.88***				0.95***	
Presence of children (ref. No)																	
Yes													0.66	0.62*	0.59*	0.63*	0.63*
Constant	0.0027***	0.0025***	0.046***	0.0037***	0.0051***	0.095***	0.0040***	0.033***	0.0035***	0.095***	0.0027***	0.090***	0.0055***	0.0038***	0.0054***	0.14**	0.0046***
Observations	41183	41183	41183	41183	41183	41183	41183	41183	41183	41183	41183	41183	41183	41183	41183	41183	41183
Log Likelihood	-969.2	-957.6	-957.4	-951.1	-948.1	-947.9	-953.2	-950.7	-948.5	-947.9	-950.5	-948.0	-951.4	-948.3	-945.6	-945.8	-950.6
aic	1954.3	1935.3	1932.8	1928.3	1918.2	1915.9	1928.5	1919.3	1922.9	1915.8	1929.0	1916.0	1926.8	1926.5	1919.2	1913.6	1927.2
p	0.0045	0.0001	0.0045	0.0003	0.0001	0.0023	0.0023	0.0030	0.0001	0.0038	0.0081	0.0054	0.0018	0.0042	0.0000	0.0026	0.0031

Exponentiated coefficients. Significance level: *p<0.05, **p<0.01, ***p<0.001: Note: Women's experiences are censored at 2005. Weights have been applied if available.

Appendix B

Romania	M1	M2a	M2b	M3a	M3b	M3c	M4a	M4b	M5a	M5b	M6a	M6b	M7a	M7b	M8a	M8b	M8c
Duration since first union dissolution in years (ref.<1)																	
1-2 years	1.17	1.20	1.20	1.21	1.21	1.21	1.19	1.19	1.21	1.21	1.19	1.21	1.19	1.19	1.21	1.21	1.19
2-3 years	1.25	1.31	1.29	1.33	1.32	1.31	1.28	1.29	1.32	1.31	1.28	1.31	1.28	1.29	1.33	1.32	1.29
3-5 years	0.57	0.59	0.59	0.60	0.60	0.59	0.58	0.58	0.59	0.59	0.58	0.59	0.58	0.58	0.60	0.59	0.58
5-7 years	0.50	0.52	0.51	0.50	0.49	0.48	0.48*	0.47*	0.50	0.48	0.48	0.48	0.48*	0.48	0.51	0.49	0.48
7-10 years	0.29**	0.30**	0.29**	0.28**	0.28**	0.27**	0.27**	0.27**	0.28**	0.27**	0.27**	0.27**	0.27**	0.27**	0.29**	0.28**	0.27**
First union type (ref. marriage)																	
cohabitation	1.65	1.64	1.74*	1.23	1.24	1.35	1.29	1.25	1.34	1.35	1.34	1.35	1.28	1.33	1.30	1.32	1.32
Birth cohort (ref. 1950-1959)																	
1960-1964	1.39	1.31	1.31	1.04	0.98	0.99	1.04	0.97	1.01	0.99	1.05	0.99	1.05	1.05	1.01	0.99	1.06
Women's age at first union formation (ref. 20 up to 24)																	
younger than 20		1.88**		1.95**	2.05**				1.79*						1.91**		
24 and older		0.55		0.47	0.48				0.67						0.63		
Women's age at first union formation (cont.)																	
			0.88***			0.86***				0.92*						0.91*	
First union duration (ref. less than 4 years)																	
4 up to 7 years				0.96							1.23			1.26			
7 up to 10 years				0.67							1.02			1.07			
more than 10 years				0.40**							1.39			1.45			
First union duration (cont.)																	
					0.94***	0.94***						1.09*					1.04
Women's age at first union dissolution (ref. 25-30)																	
younger than 25							1.76*		1.26		1.83*		1.76*	1.86*	1.18		1.92*
30 up to 35							0.73		0.73		0.64		0.73	0.64	0.75		0.64
35 and older							0.45*		0.42**		0.37*		0.45*	0.36*	0.43*		0.30*
Women's age at first union dissolution (cont.)																	
								0.92***		0.94***		0.86***				0.94**	
Presence of children (ref. No)																	
Yes													0.95	0.91	0.73	0.79	0.87
Constant	0.0054***	0.0044***	0.086**	0.0077***	0.0094***	0.27	0.0073***	0.081***	0.0063***	0.27	0.0065***	0.27	0.0075***	0.0068***	0.0079***	0.35	0.0064***
Observations	19866	19866	19866	19866	19866	19866	19866	19866	19866	19866	19866	19866	19866	19866	19866	19866	19866
Log Likelihood	-562.1	-553.8	-554.4	-547.6	-547.0	-548.0	-552.9	-550.5	-548.1	-548.0	-552.4	-548.0	-552.8	-552.3	-547.4	-547.5	-552.3
aic	1140.2	1127.5	1126.9	1121.2	1116.1	1115.9	1127.7	1119.1	1122.1	1115.9	1132.8	1115.9	1129.7	1134.6	1122.7	1117.1	1130.7
p	0.0045	0.0001	0.0045	0.0003	0.0001	0.0023	0.0023	0.0030	0.0001	0.0038	0.0081	0.0054	0.0018	0.0042	0.0000	0.0026	0.0031

Exponentiated coefficients. Significance level: *p<0.05, **p<0.01, ***p<0.001: Note: Women's experiences are censored at 2005. Weights have been applied if available.

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Russia	M1	M2a	M2b	M3a	M3b	M3c	M4a	M4b	M5a	M5b	M6a	M6b	M7a	M7b	M8a	M8b	M8c
Duration since first union dissolution in years (ref.<1)																	
1-2 years	1.00	1.00	1.00	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
2-3 years	0.76	0.76	0.76	0.77	0.77	0.77	0.77	0.77	0.78	0.77	0.77	0.77	0.77	0.78	0.78	0.77	0.77
3-5 years	0.75	0.76	0.76	0.78	0.77	0.77	0.78	0.77	0.78	0.77	0.78	0.77	0.78	0.78	0.78	0.78	0.78
5-7 years	0.66*	0.67*	0.67*	0.69*	0.68*	0.69*	0.69*	0.69*	0.69*	0.69*	0.69*	0.69*	0.69*	0.69*	0.69*	0.69*	0.69*
7-10 years	0.55**	0.56**	0.56**	0.56**	0.56**	0.56**	0.57**	0.56**	0.57**	0.56**	0.57**	0.56**	0.57**	0.57**	0.57**	0.57**	0.57**
First union type (ref. marriage)																	
cohabitation	0.97	1.07	1.14	0.85	0.81	0.85	0.89	0.83	0.88	0.85	0.89	0.84	0.81	0.83	0.81	0.80	0.81
Birth cohort (ref. 1950-1959)																	
1960-1964	1.21	1.18	1.17	1.12	1.09	1.09	1.11	1.09	1.11	1.09	1.11	1.09	1.10	1.10	1.10	1.09	1.10
Women's age at first union formation (ref. 20 up to 24)																	
younger than 20		1.43**		1.37**	1.39**				1.15						1.17		
24 and older		0.85		0.76	0.75				1.17						1.14		
Women's age at first union formation (cont.)																	
			0.93***			0.92***				0.99						0.98	
First union duration (ref. less than 4 years)																	
4 up to 7 years				0.88							1.07			1.14			
7 up to 10 years				0.58**							0.93			1.00			
more than 10 years				0.43***							0.98			1.06			
First union duration (cont.)																	
					0.93***	0.93***						1.00					1.00
Women's age at first union dissolution (ref. 25-30)																	
younger than 25							1.73***		1.72***		1.72***		1.69***	1.73***	1.65***		1.68***
30 up to 35							0.85		0.84		0.87		0.85	0.86	0.85		0.86
35 and older							0.46***		0.46***		0.48**		0.48***	0.48**	0.48***		0.49**
Women's age at first union dissolution (cont.)																	
								0.93***		0.93***		0.93***				0.94***	
Presence of children (ref. No)																	
Yes													0.80	0.78	0.80	0.82	0.81
Constant	0.011***	0.0092***	0.053***	0.013***	0.016***	0.096***	0.0100***	0.083***	0.0092***	0.096***	0.0100***	0.084***	0.012***	0.012***	0.011***	0.11***	0.012***
Observations	56783	56783	56783	56783	56783	56783	56783	56783	56783	56783	56783	56783	56783	56783	56783	56783	56783
Log Likelihood	-2514.2	-2504.8	-2500.8	-2479.1	-2475.3	-2470.6	-2471.5	-2472.3	-2470.4	-2472.1	-2471.2	-2472.3	-2469.9	-2469.3	-2468.7	-2470.8	-2469.9
aic	5044.3	5029.6	5019.5	4984.1	4972.5	4961.1	4965.0	4962.6	4966.8	4964.2	4970.3	4964.6	4963.8	4968.7	4965.4	4963.6	4965.7
p	0.0045	0.0001	0.0045	0.0003	0.0001	0.0023	0.0023	0.0030	0.0001	0.0038	0.0081	0.0054	0.0018	0.0042	0.0000	0.0026	0.0031

Exponentiated coefficients. Significance level: *p<0.05, **p<0.01, ***p<0.001: Note: Women's experiences are censored at 2005. Weights have been applied if available.

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Spain	M1	M2a	M2b	M3a	M3b	M3c	M4a	M4b	M5a	M5b	M6a	M6b	M7a	M7b	M8a	M8b	M8c
Duration since first union dissolution in years (ref.<1)																	
1-2 years	1.38	1.38	1.38	1.38	1.37	1.37	1.38	1.37	1.38	1.37	1.39	1.37	1.38	1.38	1.37	1.37	1.38
2-3 years	0.99	1.00	1.00	0.97	0.96	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.96	0.97	0.96	0.97	0.96
3-5 years	1.06	1.06	1.05	1.04	1.01	1.00	1.01	1.00	1.01	1.00	1.02	1.00	1.00	1.01	1.01	1.00	1.00
5-7 years	1.33	1.33	1.31	1.26	1.20	1.17	1.20	1.17	1.21	1.17	1.22	1.17	1.21	1.22	1.21	1.18	1.20
7-10 years	0.50	0.48	0.48	0.44	0.41	0.40	0.42	0.40	0.42	0.40	0.43	0.40	0.42	0.43	0.42	0.40	0.42
First union type (ref. marriage)																	
cohabitation	1.62	1.95*	2.01*	1.51	1.53	1.60	1.52	1.55	1.64	1.60	1.45	1.60	1.34	1.34	1.44	1.46	1.31
Birth cohort (ref. 1950-1959)																	
1960-1964	1.64*	1.55	1.55	1.36	1.21	1.17	1.31	1.17	1.31	1.17	1.34	1.17	1.27	1.30	1.26	1.13	1.26
Women's age at first union formation (ref. 20 up to 24)																	
younger than 20		1.08		1.13	1.19				0.98						1.00		
24 and older		0.62		0.56	0.56				0.79						0.78		
Women's age at first union formation (cont.)																	
			0.94			0.92**				0.99						0.98	
First union duration (ref. less than 4 years)																	
4 up to 7 years				0.62							0.73			0.81			
7 up to 10 years				0.49							0.83			0.92			
more than 10 years				0.38**							1.02			1.18			
First union duration (cont.)																	
					0.93**	0.93***						1.01					0.99
Women's age at first union dissolution (ref. 25-30)																	
younger than 25							1.38		1.31		1.32		1.35	1.32	1.26		1.33
30 up to 35							0.59		0.60		0.57		0.61	0.56	0.62		0.64
35 and older							0.42**		0.44*		0.37*		0.45*	0.37*	0.46*		0.49
Women's age at first union dissolution (cont.)																	
								0.93***		0.93***		0.92**				0.94**	
Presence of children (ref. No)																	
Yes													0.73	0.74	0.72	0.75	0.75
Constant	0.0042***	0.0046***	0.015***	0.0091***	0.010***	0.061***	0.0067***	0.053***	0.0070***	0.061***	0.0076***	0.061***	0.0084***	0.0089***	0.0089***	0.072***	0.0087***
Observations	17286	17286	17286	17286	17286	17286	17286	17286	17286	17286	17286	17286	17286	17286	17286	17286	17286
Log Likelihood	-662.7	-660.4	-660.3	-653.0	-651.6	-650.6	-652.4	-650.6	-652.0	-650.6	-651.5	-650.6	-651.4	-650.6	-650.9	-649.8	-651.3
aic	1341.5	1340.7	1338.7	1331.9	1325.2	1321.1	1326.7	1319.2	1330.0	1321.1	1330.9	1321.1	1326.7	1331.3	1329.8	1321.5	1328.6
p	0.0045	0.0001	0.0045	0.0003	0.0001	0.0023	0.0023	0.0030	0.0001	0.0038	0.0081	0.0054	0.0018	0.0042	0.0000	0.0026	0.0031

Exponentiated coefficients. Significance level: *p<0.05, **p<0.01, ***p<0.001: Note: Women's experiences are censored at 2005. Weights have been applied if available.

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United Kingdom	M1	M2a	M2b	M3a	M3b	M3c	M4a	M4b	M5a	M5b	M6a	M6b	M7a	M7b	M8a	M8b	M8c
Duration since first union dissolution in years (ref.<1)																	
1-2 years	0.88	0.88	0.88	0.89	0.88	0.88	0.88	0.88	0.88	0.88	0.89	0.88	0.91	0.92	0.91	0.91	0.91
2-3 years	0.77	0.77	0.78	0.78	0.77	0.77	0.78	0.77	0.78	0.77	0.79	0.77	0.82	0.83	0.82	0.81	0.82
3-5 years	0.67*	0.67*	0.67*	0.68*	0.67*	0.67*	0.68*	0.67*	0.69*	0.67*	0.69*	0.67*	0.73	0.75	0.73	0.72	0.74
5-7 years	0.54**	0.54**	0.54**	0.55**	0.54**	0.55**	0.55*	0.55**	0.56*	0.55**	0.56*	0.55**	0.61*	0.61*	0.60*	0.59*	0.61*
7-10 years	0.44***	0.45***	0.45***	0.44***	0.44***	0.44***	0.45***	0.44***	0.45***	0.44***	0.45***	0.44***	0.51**	0.51**	0.51**	0.50**	0.51**
First union type (ref. marriage)																	
cohabitation	1.62***	1.76***	1.79***	1.38*	1.42*	1.44*	1.32*	1.32*	1.39*	1.44*	1.33	1.44*	1.05	1.12	1.11	1.21	1.14
Birth cohort (ref. 1950-1959)																	
1960-1964	1.23	1.21	1.20	1.16	1.13	1.12	1.19	1.11	1.19	1.12	1.20	1.12	1.22	1.26	1.23	1.18	1.26
Women's age at first union formation (ref. 20 up to 24)																	
younger than 20		1.11		1.09	1.12				0.97						1.09		
24 and older		0.64*		0.63*	0.63*				0.80						0.81		
Women's age at first union formation (cont.)																	
			0.93***			0.93***				0.97						0.94**	
First union duration (ref. less than 4 years)																	
4 up to 7 years				1.02							1.19			1.37			
7 up to 10 years				0.57*							0.87			1.06			
more than 10 years				0.58**							1.01			1.37			
First union duration (cont.)																	
					0.96*	0.96*						1.03					1.04
Women's age at first union dissolution (ref. 25-30)																	
younger than 25							1.34*		1.26		1.35		1.40*	1.53*	1.28		1.54**
30 up to 35							0.61*		0.62*		0.65*		0.74	0.73	0.76		0.65*
35 and older							0.70		0.72		0.74		0.91	0.86	0.96		0.66
Women's age at first union dissolution (cont.)																	
								0.95***		0.96*		0.93***				0.99	
Presence of children (ref. No)																	
Yes													0.50***	0.48***	0.49***	0.47***	0.46***
Constant	0.012***	0.012***	0.056***	0.017***	0.018***	0.085***	0.014***	0.062***	0.014***	0.085***	0.013***	0.085***	0.019***	0.015***	0.019***	0.12***	0.015***
Observations	42137	42137	42137	42137	42137	42137	42137	42137	42137	42137	42137	42137	42137	42137	42137	42137	42137
Log Likelihood	-3191.2	-3180.7	-3174.1	-3167.1	-3172.6	-3165.7	-3167.7	-3167.9	-3166.3	-3165.7	-3165.9	-3165.7	-3140.6	-3136.6	-3138.4	-3136.0	-3137.1
aic	6398.4	6381.4	6366.1	6360.2	6367.1	6351.3	6357.5	6353.9	6358.6	6351.3	6359.8	6351.3	6305.2	6303.2	6304.9	6293.9	6300.3
p	0.0045	0.0001	0.0045	0.0003	0.0001	0.0023	0.0023	0.0030	0.0001	0.0038	0.0081	0.0054	0.0018	0.0042	0.0000	0.0026	0.0031

Exponentiated coefficients. Significance level: *p<0.05, **p<0.01, ***p<0.001: Note: Women's experiences are censored at 2005. Weights have been applied if available.

Appendix B 5: KHB for discrete-time hazard models of repartnering, women born in 1950-69 who entered first union by age 40 and subsequently dissolved it, pooled modes of 14 countries

In this study for Models 1 and 2 (Model 1 + age at first union dissolution) KHB works as follow: for each country KHB displays information on “reduced model” (total effect of the country without age at dissolution), the “full model” (direct effect of country controlled for age at dissolution) and the difference between the models (indirect effect of age at dissolution). The KHB re-estimates the odds ratios of country for Model 1 using the residuals of Model 2. Table B 5.1 compares the original estimates of Model 1 (Figure x to x+4) with odds ratios adjusted using residuals from Model 2 to 4 (“reduced model”). The KHB estimates show no difference in the significance and only minor changes in the magnitude of the odds ratios. We thus conclude that rescaling does not affect the results presented in Figure x to x+4.

Table B 5.1: Comparison of original odds ratios in M1 with ORs adjusted using residuals from subsequent M2, M3 and M4 – KHB

	M1 original	Adj. OR using M2 residuals	Adj. OR using M3 residuals	Adj. OR using M4 residuals
Belgium	1.33**	1.35**	1.35**	1.35**
Bulgaria	0.60***	0.60***	0.61***	0.61***
Estonia	1.09	1.10	1.11	1.12
Hungary	1.02	1.02	1.03	1.03
Italy	0.39***	0.39***	0.39***	0.40***
Lithuania	0.43***	0.44***	0.44***	0.45***
NDL	1.36***	1.36***	1.36***	1.35***
Norway	1.31***	1.30***	1.30***	1.30***
Poland	0.47***	0.46***	0.47***	0.47***
Romania	0.62***	0.62***	0.62***	0.63***
Russia	0.94	0.95	0.95	0.96
Spain	0.70**	0.70**	0.70**	0.70**
UK	1.18*	1.19*	1.19*	1.20*

Note: Model 1 controls additionally for duration since separation and birth cohort; Model 2: Model 1 + age at first union dissolution; Model 3: Model 1 + (age at first union dissolution + first union type); Model 4: Model 1+ (age at first union dissolution + first union type + presence of children at union dissolution).

However, as we build a series of nested models, we may want to check whether rescaling between subsequent models influences the odds ratios of the country effect. Apart from Model 4, the OR_{KHB} for country effect in the Model 1 to Model 3 come from the “reduced” model from the subsequent nested model. For example, we adjust the odds ratios for country effect in

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Model 1 using the “reduced model” of the Model 2, and then use “reduced” model of Model 3 to adjust odds ratios for country effect in Model 2, etc. and compare it with original odds ratios from Figure (x+4). The OR_{KHB} for Model 4, on the other hand, are taken from the “full” Model 4 which includes all explanatory variables. Table B 5.2 shows only very minor changes in the magnitude of original and KHB adjusted odds ratios. Furthermore, apart from Norway and the Netherlands in Model 3, the significance of the country effect is this same. Adjusting for the residuals from Model 4, the OR_{KHB} for Model 3 become less significant in the Netherlands and more significant in Norway as compare to the original odds ratios in Model 3 (the odds ratios for both countries remain significant, however). In most countries, a series of nested models suggest only very minor changes in the country effect on repartnering, net rescaling, when micro-level demographic characteristics are consecutively controlled for.

Table B 5.2: Comparison of original odds ratios (OR) with odds ratios estimated using the KHB command

	M1		M2		M3		M4
	OR	OR _{khb}	OR	OR _{khb}	OR	OR _{khb}	OR
Belgium	1.33**	1.33**	1.42***	1.43***	1.35**	1.36**	1.33**
Bulgaria	0.60***	0.60***	0.68***	0.68***	0.56***	0.57***	0.58***
Estonia	1.09	1.10	1.19*	1.19*	0.99	1.00	1.03
Hungary	1.02	1.03	1.13	1.12	0.95	0.96	0.96
Italy	0.39***	0.39***	0.42***	0.42***	0.43***	0.43***	0.41***
Lithuania	0.43***	0.44***	0.48***	0.49***	0.46***	0.47***	0.47***
NDL	1.36***	1.36***	1.40***	1.40***	1.23**	1.23*	1.16
Norway	1.31***	1.31***	1.32***	1.31***	1.19*	1.19**	1.18*
Poland	0.47***	0.47***	0.51***	0.51***	0.47***	0.48***	0.49***
Romania	0.62***	0.63***	0.68***	0.67***	0.63***	0.64***	0.64***
Russia	0.94	0.94	1.03	1.03	0.83*	0.84*	0.85*
Spain	0.70**	0.71**	0.78*	0.77*	0.79*	0.79*	0.77*
UK	1.18*	1.18*	1.26**	1.26**	1.06	1.07	1.06

Note: Model 1 controls for duration since separation and birth cohort; Model 2: Model 1 + age at first union dissolution; Model 3: Model 2 + first union type; Model 3: Model 2 + presence of children at union dissolution.

Appendix B 6: Effect of previous fertility on women's repartnering chances. Odds ratios from single-country discrete-time hazard models of repartnering, women born 1950-69 who entered first union by age 40 and subsequently dissolved it

Model corresponding to the one presented in Table IV. 4 but with "number of children" instead of "presence of children"

	Belgium	Bulgaria	Estonia	France	Hungary	Italy	Lithuania	NDL	Norway	Poland	Romania	Russia	Spain	The UK
Duration since first union dissolution in years (ref.<1)														
1-2 years	1.14	1.02	1.25	1.25	1.07	0.94	1.52	2.78***	1.67***	1.49	1.21	1.02	1.38	0.91
2-3 years	1.25	0.64	0.86	1.39	0.85	0.79	1.15	1.79*	1.83***	1.39	1.33	0.78	0.97	0.82
3-5 years	0.95	0.57	0.75	0.95	0.87	1.06	0.85	2.61***	1.29	0.83	0.60	0.79	1.01	0.73
5-7 years	0.57	0.52	0.38***	0.49**	0.48**	1.12	0.60	1.62	1.23	1.36	0.51	0.70*	1.21	0.60*
7-10 years	0.70	0.31**	0.47***	0.65	0.69	0.61	0.71	1.04	0.92	0.89	0.29**	0.57**	0.42	0.51**
First union type (ref. marriage)														
Cohabitation	0.92	1.25	1.12	0.74*	1.19	1.33	0.62	1.04	1.12	1.33	1.30	0.81	1.45	1.11
Birth cohort (ref. 1950-1959)														
1960-1964	1.51*	0.94	1.19	1.17	0.93	1.14	1.02	1.31	1.21	1.00	1.01	1.10	1.25	1.24
Women's age at first union formation (ref. 20 up to 24)														
younger than 20	0.70*	1.01	1.13	1.04	1.48**	0.58	1.32	0.95	0.98	1.60*	1.91**	1.22	1.01	1.08
24 and older	0.39**	0.51	0.67	0.78	0.94	0.96	0.72	0.83	0.65**	0.67	0.63	1.09	0.77	0.81
Women's age at first union dissolution (ref. 25 up to 30)														
younger than 25	1.26	1.04	1.36*	1.33	1.45*	1.42	1.42	0.81	1.03	1.15	1.18	1.56**	1.24	1.29
30 up to 35	1.08	0.88	1.03	1.18	0.69	0.55*	0.55	0.80	0.74*	0.85	0.75	0.88	0.64	0.76
35 and older	0.95	0.36*	0.43***	0.60*	0.52**	0.31***	0.63	0.46**	0.48***	0.45**	0.43*	0.52**	0.48	0.94
Number of children at union dissolution (ref. no children)														
1 child	0.77	0.64	0.99	0.65*	0.81	0.90	0.56*	0.47**	0.57***	0.60*	0.73	0.82	0.75	0.45***
2 children or more	0.60*	0.46*	0.80	0.59**	0.76	0.57	0.38**	0.74	0.86	0.56*	0.72	0.66*	0.67	0.52***
Constant	0.017***	0.015***	0.012***	0.016***	0.011***	0.006***	0.009***	0.008***	0.011***	0.005***	0.008***	0.011***	0.009***	0.019***
Person-months	15649	19897	41010	41469	35451	56695	31137	26231	57634	41183	19866	56783	17286	42137
Number of women	295	262	660	689	567	790	401	458	1025	538	274	842	275	695
Number of events	174	103	364	341	290	177	110	295	637	147	97	424	102	425

Exponentiated coefficients. Significance level: *p<0.05, **p<0.01, ***p<0.001: Note: Women's experiences are censored at 2005. Weights have been applied if available.

Appendix B

Model corresponding to the one presented in Table IV. 4 but with “Age of the youngest child at union dissolution” instead of “presence of children”

	Belgium	Bulgaria	Estonia	France	Hungary	Italy	Lithuania	NDL	Norway	Poland	Romania	Russia	Spain	The UK
Duration since first union dissolution in years (ref.<1)														
1-2 years	1.15	1.02	1.25	1.25	1.07	0.93	1.53	2.78***	1.66***	1.49	1.21	1.01	1.39	0.91
2-3 years	1.27	0.64	0.86	1.40	0.86	0.79	1.15	1.78*	1.82***	1.40	1.33	0.78	0.98	0.82
3-5 years	0.95	0.57	0.75	0.95	0.88	1.06	0.85	2.60***	1.28	0.84	0.60	0.78	1.03	0.74
5-7 years	0.57	0.52	0.38***	0.49**	0.49**	1.12	0.60	1.60	1.21	1.38	0.50	0.69*	1.24	0.62*
7-10 years	0.71	0.31**	0.46***	0.65	0.70	0.62	0.73	1.03	0.90	0.90	0.29**	0.57**	0.42	0.53**
First union type (ref. marriage)														
Cohabitation	0.87	1.23	1.14	0.75*	1.22	1.33	0.69	1.04	1.08	1.35	1.29	0.81	1.47	1.14
Birth cohort (ref. 1950-1959)														
1960-1964	1.49*	0.97	1.20	1.16	0.94	1.12	0.99	1.30	1.23*	1.02	1.01	1.10	1.19	1.22
Women's age at first union formation (ref. 20 up to 24)														
younger than 20	0.67*	0.98	1.09	1.02	1.47**	0.54*	1.23	1.01	1.04	1.55*	1.92**	1.17	1.10	1.04
24 and older	0.45**	0.54	0.69	0.83	1.07	1.12	0.72	0.79	0.62**	0.72	0.62	1.15	0.69	0.84
Women's age at first union dissolution (ref. 25 up to 30)														
younger than 25	1.32	1.13	1.45*	1.41*	1.67**	1.64	1.65	0.79	0.96	1.32	1.17	1.66**	0.99	1.40*
30 up to 35	0.90	0.91	1.03	1.12	0.61*	0.49**	0.57	0.88	0.77	0.80	0.77	0.84	0.63	0.68
35 and older	0.66	0.40	0.42***	0.53**	0.40***	0.22***	0.66	0.54*	0.53**	0.39**	0.45*	0.47***	0.60	0.83
Age of the youngest child at union dissolution (ref. no children)														
3 years or younger	0.61*	0.58	0.91	0.56**	0.69*	0.62	0.43**	0.65*	0.65***	0.51**	0.74	0.79	1.01	0.39***
4 years to 6 years	0.61	0.66	1.00	0.72	0.88	0.83	0.72	0.61	0.67*	0.71	0.73	0.79	0.56	0.73
7 years or older	0.98	0.52	0.88	0.70	1.16	1.18	0.44*	0.47**	0.69*	0.71	0.70	0.82	0.43	0.63
Constant	0.018***	0.015***	0.011***	0.015***	0.0096***	0.0057***	0.0078***	0.0075***	0.012***	0.0051***	0.0079***	0.011***	0.0095***	0.018***
Person-months	15649	19897	41010	41469	35451	56695	31137	26231	57634	41183	19866	56783	17286	42137
Number of women	295	262	660	689	567	790	401	458	1025	538	274	842	275	695
Number of events	174	103	364	341	290	177	110	295	637	147	97	424	102	425

Exponentiated coefficients. Significance level: *p<0.05, **p<0.01, ***p<0.001: Note: Women's experiences are censored at 2005. Weights have been applied if available.

Model corresponding to the one presented in Table IV. 4 but with “Age and number of children at union dissolution” instead of “presence of children”

	Belgium	Bulgaria	Estonia	France	Hungary	Italy	Lithuania	NDL	Norway	Poland	Romania	Russia	Spain	The UK
Duration since first union dissolution in years (ref.<1)														
1-2 years	1.15	1.02	1.25	1.25	1.07	0.94	1.52	2.78***	1.66***	1.49	1.21	1.02	1.39	0.91
2-3 years	1.27	0.64	0.86	1.4	0.86	0.79	1.15	1.79*	1.83***	1.4	1.33	0.78	0.97	0.82
3-5 years	0.96	0.57	0.75	0.96	0.89	1.06	0.85	2.61***	1.29	0.84	0.6	0.79	1.01	0.73
5-7 years	0.57	0.52	0.38***	0.49**	0.49**	1.13	0.59	1.61	1.24	1.38	0.51	0.7	1.22	0.61*
7-10 years	0.71	0.31**	0.47***	0.65	0.71	0.62	0.71	1.04	0.93	0.91	0.29**	0.58**	0.42	0.51**
First union type (ref. marriage)														
Cohabitation	0.88	1.26	1.12	0.75*	1.19	1.3	0.66	1.04	1.14	1.34	1.3	0.81	1.48	1.11
Birth cohort (ref. 1950-1959)														
1960-1964	1.52*	0.97	1.20	1.17	0.93	1.13	1.00	1.3	1.22*	1.01	1.01	1.1	1.19	1.23
Women's age at first union formation (ref. 20 up to 24)														
younger than 20	0.67*	1.03	1.14	1.03	1.48**	0.56*	1.37	0.95	0.98	1.56*	1.92**	1.24	1.05	1.09
24 and older	0.43**	0.49	0.64	0.8	1.08	1.07	0.66	0.81	0.66**	0.69	0.62	1.08	0.69	0.83
Women's age at first union dissolution (ref. 25 up to 30)														
younger than 25	1.28	0.98	1.32*	1.40*	1.50*	1.57	1.32	0.81	1.00	1.16	1.18	1.46*	1.20	1.29
30 up to 35	0.99	0.95	1.1	1.15	0.61*	0.51**	0.63	0.85	0.73*	0.83	0.77	0.88	0.68	0.75
35 and older	0.71	0.41	0.47**	0.58*	0.37***	0.25***	0.76	0.50**	0.42***	0.36**	0.45*	0.48**	0.67	0.84
Age and number of children at union dissolution (ref. no children)*														
1 child under 6	0.70	0.68	1.01	0.57**	0.79	0.77	0.61	0.51**	0.62***	0.64	0.73	0.85	0.79	0.47***
1 child 6+	1.08	0.52	0.85	0.92	0.94	1.27	0.43*	0.34*	0.41***	0.52	0.72	0.68	0.59	0.35*
2 or more, at least one under 6	0.51*	0.45	0.79	0.66	0.65*	0.56	0.40**	0.78	0.78	0.47**	0.74	0.51**	0.84	0.49***
2 or more, all 6+	0.87	0.41	0.73	0.55*	1.24	0.75	0.30**	0.6	1.07	0.83	0.67	0.8	0.36	0.65
Constant	0.017***	0.015***	0.012***	0.015***	0.010***	0.0059***	0.0085***	0.0075***	0.011***	0.0054***	0.0079***	0.012***	0.0089***	0.019***
Person-months	15649	19897	41010	41469	35451	56695	31137	26231	57634	41183	19866	56783	17286	42137
Number of women	295	262	660	689	567	790	401	458	1025	538	274	842	275	695
Number of events	174	103	364	341	290	177	110	295	637	147	97	424	102	425

Exponentiated coefficients. Significance level: *p<0.05, **p<0.01, ***p<0.001: Note: Women's experiences are censored at 2005. Weights have been applied if available.

Notes: *The compositional variable of previous fertility refers to grouping by Meggiolaro and Ongaro 2008.

Appendix B 7: Description of the population at risk of repartnering regarding the type of the dissolved first union. Women born in 1950-69 who entered first union by age 40 and subsequently dissolved it

	Type of the dissolved first union			<i>Total number of women</i>
	Direct marriage	Marriage preceded by cohabitation	Cohabitation not transformed into marriage	
Belgium	7%	71%	22%	295
Bulgaria	49%	44%	7%	262
Estonia	46%	36%	18%	660
France	25%	28%	46%	689
Hungary	78%	9%	13%	567
Italy	71%	8%	21%	790
Lithuania	77%	13%	10%	401
The Netherlands	35%	24%	40%	458
Norway	20%	36%	44%	1,025
Poland	77%	13%	10%	538
Romania	65%	19%	15%	274
Russia	65%	24%	11%	842
Spain	74%	15%	11%	275
United Kingdom	39%	18%	43%	695

Note: Women's experiences are censored at 2005. Weights have been applied if available.

Appendix B 8: Odds ratios from discrete-time hazard model of repartnering, women born 1950-69 who entered first union by age 40 and subsequently dissolved it; Single country model with refined first union type

	Belgium	Bulgaria	Estonia	France	Hungary	Italy	Lithuania	NLD	Norway	Poland	Romania	Russia	Spain	The UK
Duration since first union dissolution in years (ref.<1)														
1-2 years	1.13	1.02	1.25	1.26	1.07	0.94	1.51	2.78***	1.66***	1.48	1.21	1.02	1.39	0.92
2-3 years	1.24	0.64	0.86	1.41	0.85	0.79	1.15	1.78*	1.82***	1.39	1.34	0.78	0.97	0.82
3-5 years	0.94	0.57	0.75	0.96	0.87	1.06	0.84	2.61***	1.28	0.84	0.61	0.79	1.01	0.74
5-7 years	0.57	0.52	0.38***	0.50**	0.49**	1.12	0.59	1.61	1.21	1.38	0.51	0.70*	1.22	0.62*
7-10 years	0.71	0.31**	0.47***	0.67	0.71	0.62	0.71	1.03	0.90	0.91	0.29**	0.57**	0.42	0.52**
First union type (ref. direct marriage)														
Marriage preceded by cohabitation	0.66	0.92	0.89	1.47*	1.55*	0.59	0.95	0.83	1.00	1.53	0.75	0.85	1.54	1.51*
Cohabitation	0.64	1.19	1.07	0.91	1.24	1.28	0.64	0.96	1.08	1.42	1.17	0.77	1.59	1.23
Birth cohort (ref. 1950-1959)														
1960-1964	1.50*	0.95	1.20	1.11	0.91	1.18	0.99	1.36*	1.23*	0.99	1.08	1.11	1.19	1.17
Women's age at first union formation (ref. 20 up to 24)														
younger than 20	0.70*	0.98	1.12	1.04	1.45**	0.56*	1.26	1.02	1.04	1.60*	1.95**	1.19	0.97	1.07
24 and older	0.40**	0.54	0.71	0.77	0.94	1.00	0.77	0.80	0.61***	0.67	0.65	1.17	0.76	0.80
Women's age at first union dissolution (ref. 25 up to 30)														
younger than 25	1.28	1.13	1.44**	1.37	1.48*	1.45	1.49	0.78	0.95	1.17	1.24	1.65***	1.31	1.31
30 up to 35	1.02	0.85	0.99	1.14	0.69	0.52**	0.53*	0.84	0.78	0.83	0.73	0.84	0.60	0.74
35 and older	0.86	0.35*	0.40***	0.58**	0.52**	0.28***	0.57	0.49**	0.55***	0.44**	0.44*	0.48***	0.48*	0.94
Presence of children (ref. No)														
Yes	0.71	0.60	0.93	0.61**	0.78	0.80	0.50**	0.60*	0.66***	0.57*	0.74	0.80	0.72	0.48***
Constant	0.017***	0.015***	0.011***	0.015***	0.011***	0.006***	0.009***	0.008***	0.012***	0.005***	0.008***	0.011***	0.009***	0.019***
Person-months	15649	19897	41010	41469	35451	56695	31137	26231	57634	41183	19866	56783	17286	42137
Number of women	295	262	660	689	567	790	401	458	1025	538	274	842	275	695
Number of events	174	103	364	341	290	177	110	295	637	147	97	424	102	425

Exponentiated coefficients. Significance level: *p<0.05, **p<0.01, ***p<0.001: Note: Women's experiences are censored at 2005. Weights have been applied if available.

Appendix C (Chapter V)

Appendix C1: Number of women in the sample by union order in which women entered motherhood and repartnered

	Estonia	France	Norway	Russia	The UK
Women who entered motherhood in first union	636	383	556	730	412
<i>of whom repartnered by union order</i>					
second union	317	162	262	314	185
third union	19	12	18	15	19
fourth union	-	-	-	2	2
Women who entered motherhood in second union	22	12	44	26	18
<i>of whom repartnered by union order</i>					
third union	8	2	13	5	8
fourth union	-	-	-	-	1
Women who entered motherhood in third union	1	-	3	-	1
<i>of whom repartnered by union order</i>					
fourth union	-	-	-	-	1
Total	659	395	603	756	431

Note: Women's experiences are censored after 15 years following dissolution of the first fertile union, at age 45 and in year 2005.

Appendix C2: Life-table estimates of cumulative proportions of births following dissolution of women's first fertile union (failure function)

	Estonia	France	Norway	Russia	The UK
Time since dissolution of first fertile union (in months)					
12	0.01	0.01	0.00	0.00	0.01
24	0.05	0.03	0.03	0.03	0.04
36	0.10	0.07	0.07	0.08	0.09
48	0.15	0.11	0.13	0.12	0.14
60	0.20	0.14	0.19	0.16	0.18
120	0.37	0.26	0.38	0.31	0.31
180	0.43	0.31	0.42	0.35	0.37

Note: Women's experiences are censored at age 45 and in year 2005.

Appendix C3: Model building process

Before examining the role of partnership history on mothers' continued childbearing after union dissolution, we first test which variable describing women's previous fertility fits the model best. We do this additional check because previous research has provided mixed evidence regarding the effect of women's children on continued childbearing after union dissolution (Chapter II.7). For this purpose three models are estimated for each country separately. The basic Model 0 includes duration since union dissolution, type of the first fertile union, current union status and women's educational level. In the subsequent Model 1-A, age of the youngest child at union dissolution is included and in Model 1-B the number of children at separation. The model fit of Model 1-A and Model 1-B is compared to Model 0 assessed using likelihood ratio tests. Since for most countries Model 1-A has the highest explanatory power, we use this model (presented in Chapter V in Table V.2 as Model 1) to test the overall partnership effect on continued childbearing after dissolution of the first fertile union.

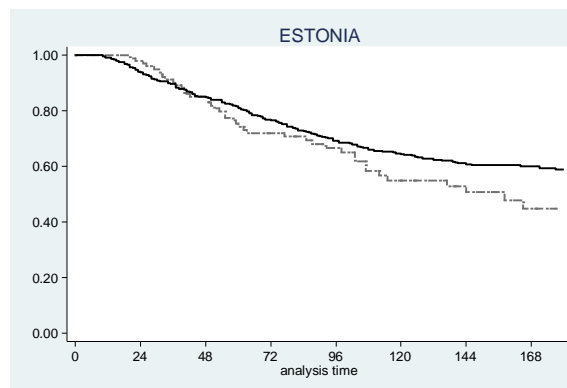
	Estonia						France						Norway					
	Model 0		Model 1-A		Model 1 -B		Model 0		Model 1-A		Model 1 -B		Model 0		Model 1-A		Model 1 -B	
	OR	SE	OR	SE	OR	SE	OR	SE	OR	SE	OR	SE	OR	SE	OR	SE	OR	SE
Duration since union dissolution (ref. 2 to under 3 years)																		
9 months to under 2 years	1.16	(0.29)	1.16	(0.29)	1.16	(0.29)	1.10	(0.45)	1.11	(0.46)	1.10	(0.46)	0.92	(0.30)	0.92	(0.30)	0.93	(0.31)
3 to under 4 years	0.95	(0.24)	0.96	(0.24)	0.95	(0.24)	0.96	(0.40)	0.96	(0.40)	0.96	(0.40)	1.70	(0.47)	1.71	(0.47)	1.70	(0.47)
4 to under 5 years	0.78	(0.21)	0.78	(0.21)	0.78	(0.21)	1.42	(0.55)	1.42	(0.55)	1.41	(0.54)	1.41	(0.40)	1.41	(0.41)	1.43	(0.41)
5 to under 7 years	0.75	(0.18)	0.75	(0.18)	0.75	(0.18)	0.85	(0.32)	0.85	(0.32)	0.85	(0.32)	0.94	(0.26)	0.94	(0.26)	0.98	(0.27)
7 to under 9 years	0.69	(0.17)	0.69	(0.17)	0.69	(0.17)	0.52	(0.23)	0.52	(0.23)	0.52	(0.22)	0.74	(0.22)	0.75	(0.22)	0.77	(0.23)
9 to under 12 years	0.34***	(0.10)	0.34***	(0.10)	0.34***	(0.10)	0.21**	(0.11)	0.21**	(0.11)	0.21**	(0.11)	0.39**	(0.13)	0.39**	(0.13)	0.40**	(0.14)
12 to under 15 years	0.15***	(0.06)	0.15***	(0.06)	0.15***	(0.06)	0.18**	(0.12)	0.18**	(0.12)	0.18**	(0.12)	0.10***	(0.06)	0.10***	(0.06)	0.10***	(0.06)
Union status at first birth (ref. married at first birth)																		
Cohabiting at first birth and afterwards	1.22	(0.22)	1.13	(0.20)	1.20	(0.22)	1.82*	(0.43)	1.91**	(0.45)	1.87**	(0.45)	1.28	(0.21)	1.26	(0.21)	1.12	(0.19)
Current union status (ref. currently married)																		
Currently singly	0.05***	(0.01)	0.04***	(0.01)	0.05***	(0.01)	0.06***	(0.02)	0.05***	(0.02)	0.06***	(0.02)	0.07***	(0.01)	0.06***	(0.01)	0.07***	(0.01)
Currently cohabiting	0.47***	(0.07)	0.47***	(0.07)	0.48***	(0.07)	0.46**	(0.12)	0.44**	(0.11)	0.46**	(0.12)	0.41***	(0.07)	0.42***	(0.08)	0.43***	(0.08)
Mother's highest level of education (ref. medium)																		
High	0.62**	(0.10)	0.57***	(0.09)	0.61**	(0.10)	0.80	(0.27)	0.79	(0.27)	0.81	(0.27)	0.87	(0.15)	0.85	(0.15)	0.79	(0.14)
Low	1.20	(0.22)	1.14	(0.21)	1.22	(0.23)	1.26	(0.30)	1.33	(0.31)	1.25	(0.30)	0.83	(0.15)	0.82	(0.15)	0.84	(0.16)
Mother's age at union dissolution (ref. 25-29)																		
Age under 25	1.28	(0.18)	1.05	(0.16)	1.25	(0.18)	1.22	(0.33)	1.07	(0.30)	1.24	(0.34)	1.40*	(0.23)	1.37	(0.23)	1.17	(0.21)
Age 30-34	0.34***	(0.08)	0.44**	(0.11)	0.35***	(0.08)	0.49**	(0.13)	0.52*	(0.15)	0.47**	(0.13)	0.56**	(0.12)	0.60*	(0.13)	0.62*	(0.13)
Age 35-40	0.09***	(0.07)	0.14**	(0.10)	0.10**	(0.07)	0.12***	(0.07)	0.13**	(0.08)	0.11***	(0.07)	0.20***	(0.08)	0.23***	(0.10)	0.23***	(0.09)
Age of the youngest child at union dissolution (ref. under 3 years)																		
Child aged 3-5			0.71*	(0.11)					0.57*	(0.16)					0.97	(0.18)		
Child aged 6+			0.45**	(0.12)					0.81	(0.28)					0.79	(0.21)		
Number of children at union dissolution (ref. one child)																		
2 children and more					0.89	(0.14)					1.16	(0.27)					0.58**	(0.10)
Loglikelihood ratio test																		
Log-likelihood	-1324.0		-1318.4		-1323.7		-535.3		-533.0		-535.1		-1103.0		-1102.6		-1098.2	
LR test statistic			11.1		0.51				4.53		0.38				0.80		9.73	
Degrees of freedom			2		1				2		1				2		1	
Level of significance			0.0038		0.48				0.10		0.54				0.67		0.0018	
Person-months	61968		61968		61968		34439		34439		34439		50341		50341		50341	

Appendix C

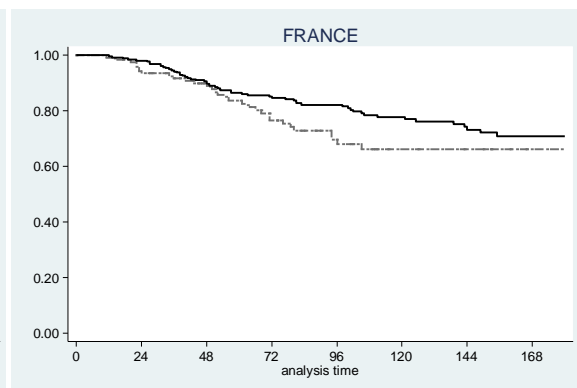
	Russia						The United Kingdom					
	Model 0		Model 1-A		Model 1 -B		Model 0		Model 1-A		Model 1 -B	
	OR	SE	OR	SE	OR	SE	OR	SE	OR	SE	OR	SE
Duration since union dissolution (ref. 2 to under 3 years)												
9 months to under 2 years	0.46**	(0.14)	0.47*	(0.14)	0.47*	(0.14)	1.18	(0.41)	1.18	(0.41)	1.18	(0.41)
3 to under 4 years	0.67	(0.17)	0.67	(0.17)	0.67	(0.17)	1.31	(0.43)	1.31	(0.43)	1.31	(0.43)
4 to under 5 years	0.63	(0.16)	0.62	(0.16)	0.63	(0.16)	1.03	(0.37)	1.03	(0.37)	1.03	(0.37)
5 to under 7 years	0.54**	(0.12)	0.53**	(0.12)	0.54**	(0.12)	0.69	(0.23)	0.69	(0.23)	0.69	(0.23)
7 to under 9 years	0.43***	(0.10)	0.43***	(0.10)	0.44***	(0.10)	0.44*	(0.17)	0.44*	(0.17)	0.44*	(0.17)
9 to under 12 years	0.22***	(0.06)	0.22***	(0.06)	0.22***	(0.06)	0.30**	(0.13)	0.30**	(0.13)	0.30**	(0.13)
12 to under 15 years	0.10***	(0.04)	0.11***	(0.04)	0.10***	(0.04)	0.22**	(0.12)	0.22**	(0.12)	0.22**	(0.12)
Union status at first birth (ref. married at first birth)												
Cohabiting at first birth and afterwards	1.21	(0.29)	1.07	(0.26)	1.23	(0.29)	1.17	(0.28)	1.15	(0.28)	1.17	(0.29)
Current union status (ref. currently married)												
Currently singly	0.02***	(0.00)	0.02***	(0.00)	0.02***	(0.00)	0.13***	(0.03)	0.12***	(0.03)	0.13***	(0.03)
Currently cohabiting	0.30***	(0.05)	0.31***	(0.05)	0.30***	(0.05)	0.62*	(0.14)	0.62*	(0.14)	0.62*	(0.14)
Mother's highest level of education (ref. medium)												
High	0.94	(0.14)	0.95	(0.14)	0.98	(0.15)	0.72	(0.16)	0.72	(0.16)	0.72	(0.16)
Low	1.74*	(0.44)	1.68*	(0.43)	1.76*	(0.45)	1.07	(0.26)	1.10	(0.27)	1.07	(0.26)
Mother's age at union dissolution (ref. 25-29)												
Age under 25	1.17	(0.18)	1.01	(0.17)	1.23	(0.20)	1.38	(0.29)	1.29	(0.30)	1.37	(0.29)
Age 30-34	0.68	(0.17)	0.88	(0.24)	0.66	(0.17)	0.40**	(0.12)	0.43**	(0.13)	0.40**	(0.12)
Age 35-40	0.15**	(0.09)	0.20**	(0.12)	0.13***	(0.08)	0.17***	(0.08)	0.20**	(0.10)	0.17***	(0.08)
Age of the youngest child at union dissolution (ref. under 3 years)												
Child aged 3-5			0.79	(0.13)					0.93	(0.21)		
Child aged 6+			0.50*	(0.14)					0.74	(0.26)		
Number of children at union dissolution (ref. one child)												
2 children and more					1.34	(0.31)					0.99	(0.20)
Loglikelihood ratio test												
Log-likelihood	-1175.9		-1172.5		-1175.1		-728.3		-727.9		-728.3	
LR test statistic			6.71		1.51				0.78		0.0021	
Degrees of freedom			2		1				2		1	
Level of significance			0.035		0.22				0.68		0.96	
Person-months	72863		72863		72863		38402		38402		38402	

Note: Women's experiences are censored after 15 years following dissolution of the first fertile union, at age 45 and in year 2005. Standard errors in parentheses. Exponentiated coefficients; *p<0.05, **p<0.01, ***p<0.001.

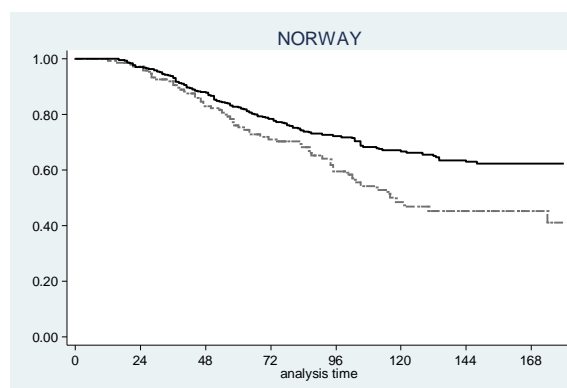
Appendix C4: Kaplan-Meier survival estimates of having an additional child after union dissolution by the type of the first fertile union



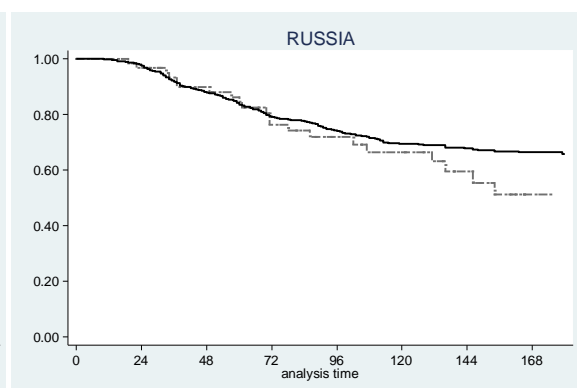
$\chi^2(1)=2.39$, $\text{Pr}>\chi^2=0.1220$



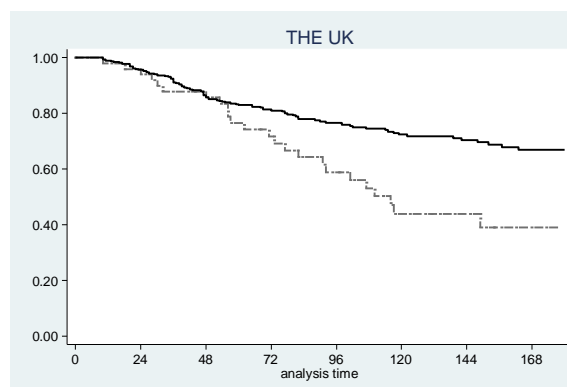
$\chi^2(1) = 2.52$, $\text{Pr}>\chi^2=0.1122$



$\chi^2(1)=9.05$, $\text{Pr}>\chi^2=0.0026$



$\chi^2(1)=1.23$, $\text{Pr}>\chi^2=0.2666$



$\chi^2(1)=9.89$, $\text{Pr}>\chi^2=0.0017$

— Marriage
- - Cohabitation

Note: Women's experiences are censored after 15 years following dissolution of the first fertile union, at age 45 and in year 2005.

Appendix C

Appendix C5: Odds ratios from discrete-time hazard model of continued childbearing after union dissolution with redefined type of first fertile union - including transition to marriage after birth in cohabitation

	Norway	
	OR	SE
Duration since union dissolution (ref. 2 to under 3 years)		
9 months to under 2 years	0.92	(0.30)
3 to under 4 years	1.70	(0.47)
4 to under 5 years	1.40	(0.40)
5 to under 7 years	0.94	(0.26)
7 to under 9 years	0.75	(0.22)
9 to under 12 years	0.40**	(0.14)
12 to under 15 years	0.10***	(0.06)
Union status at first birth (ref. married at first birth)		
Cohabiting at first birth and afterwards	1.30	(0.22)
Cohabiting at first birth and married afterwards	1.26	(0.32)
Current union status (ref. currently married)		
Currently single	0.06***	(0.01)
Currently cohabiting	0.41***	(0.07)
Mother's age at union dissolution (ref. 25-29)		
Age under 25	1.36	(0.23)
Age 30-34	0.58*	(0.13)
Age 35-40	0.23***	(0.10)
Age of the youngest child at union dissolution (ref. under 3 years)		
Child aged 3-5	0.95	(0.17)
Child aged 6+	0.81	(0.22)
Mother's highest level of education (ref. medium)		
High	0.86	(0.15)
Low	0.80	(0.15)
Log-likelihood	-1102.21	
Person-months	50341	
Number of women	603	
Number of births	191	

Standard errors in parentheses. Exponentiated coefficients; *p<0.05, **p<0.01, ***p<0.001.

Note: Women's experiences are censored after 15 years following dissolution of the first fertile union, at age 45 and in year 2005.

Appendix C6: Odds ratios from discrete-time hazard model of continued childbearing after union dissolution with redefined type of first fertile union – union type at the moment of first birth

	Estonia		France		Norway		Russia		United Kingdom	
	OR	SE	OR	SE	OR	SE	OR	SE	OR	SE
Duration since union dissolution (ref. 2 to under 3 years)										
9 months to under 2 years	1.16	(0.29)	1.12	(0.46)	0.92	(0.30)	0.47*	(0.14)	1.18	(0.41)
3 to under 4 years	0.96	(0.24)	0.99	(0.41)	1.70	(0.47)	0.67	(0.17)	1.31	(0.44)
4 to under 5 years	0.77	(0.21)	1.47	(0.57)	1.40	(0.40)	0.62	(0.16)	1.03	(0.37)
5 to under 7 years	0.75	(0.18)	0.88	(0.33)	0.94	(0.26)	0.53**	(0.12)	0.69	(0.23)
7 to under 9 years	0.69	(0.17)	0.55	(0.24)	0.75	(0.23)	0.43***	(0.10)	0.44*	(0.17)
9 to under 12 years	0.34***	(0.10)	0.22**	(0.12)	0.40**	(0.14)	0.22***	(0.06)	0.31**	(0.13)
12 to under 15 years	0.15***	(0.06)	0.20*	(0.13)	0.10***	(0.06)	0.11***	(0.04)	0.22**	(0.12)
Union type at the moment of first birth (ref. married)										
Cohabiting at first birth ¹	1.24	(0.20)	2.09**	(0.49)	1.29	(0.20)	1.11	(0.23)	1.29	(0.29)
Current union status (ref. currently married)										
Currently singly	0.04***	(0.01)	0.05***	(0.02)	0.06***	(0.01)	0.02***	(0.00)	0.12***	(0.03)
Currently cohabiting	0.47***	(0.07)	0.41***	(0.11)	0.41***	(0.07)	0.31***	(0.05)	0.61*	(0.14)
Mother's age at union dissolution (ref. 25-29)										
Age under 25	1.06	(0.16)	1.08	(0.30)	1.36	(0.23)	1.01	(0.17)	1.28	(0.29)
Age 30-34	0.44**	(0.11)	0.51*	(0.14)	0.58*	(0.13)	0.89	(0.24)	0.44**	(0.13)
Age 35-40	0.14**	(0.10)	0.13**	(0.09)	0.23***	(0.10)	0.20**	(0.12)	0.21**	(0.11)
Age of the youngest child at union dissolution (ref. under 3 years)										
Child aged 3-5	0.71*	(0.11)	0.57*	(0.16)	0.95	(0.17)	0.79	(0.13)	0.93	(0.21)
Child aged 6+	0.44**	(0.12)	0.79	(0.27)	0.81	(0.22)	0.50*	(0.14)	0.75	(0.26)
Mother's highest level of education (ref. medium)										
High	0.58***	(0.09)	0.72	(0.25)	0.86	(0.15)	0.95	(0.14)	0.72	(0.15)
Low	1.13	(0.21)	1.32	(0.31)	0.80	(0.15)	1.68*	(0.43)	1.12	(0.28)
Constant	0.038***		0.024***		0.026***		0.052***		0.021***	
Person-months	61968		34439		50341		46722		38402	
Number of women	659		395		603		472		431	
Number of births	235		88		191		93		120	

Standard errors in parentheses. Exponentiated coefficients; *p<0.05, **p<0.01, ***p<0.001.

Note: ¹ included women who cohabited at first birth and subsequently married.

Women's experiences are censored after 15 years following dissolution of the first fertile union, at age 45 and in year 2005.

Appendix C

Appendix C7: Interrelationship between the type of the first fertile union and the partnership context following dissolution. Distribution of person-month in each category by country

Union status at first birth		Current union status	Estonia	France	Norway	Russia	UK
Cohabiting at first birth and afterwards	-	Currently single	5,982	7,533	8,115	4,169	2,928
Cohabiting at first birth and afterwards	-	Currently cohabiting	2,051	1,538	2,683	863	790
Cohabiting at first birth and afterwards	-	Currently married	638	322	528	467	437
Married at first birth	-	Currently single	34,953	17,129	27,389	52,202	24,986
Married at first birth	-	Currently cohabiting	10,145	5,691	8,259	8,151	4,930
Married at first birth	-	Currently married	8,199	2,226	3,367	7,011	4,331
			61,968	34,439	50,341	72,863	38,402

Note: Women's experiences are censored after 15 years following dissolution of the first fertile union, at age 45 and in year 2005.

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