

UNION FORMATION IN THE
BALTIC COUNTRIES:
EVIDENCE FROM FFS

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This article examines the transformation of first union formation in the Baltic countries between the late 1960s and early 1990s, in the context of societal and family-level gender relations. The analyses employ microdata from the European Family and Fertility Surveys program. Our results on the trends indicate that in Estonia and Latvia the shift from direct marriage to cohabitation started well before the fall of socialist regime. Event-history models provide support for a hypothesised association between union formation and gender system, with Lithuania showing more traditional features in both respect, plausibly embedded in long-standing cultural differences between the countries.

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1. Introduction

For several decades statistics have documented the salient transformation of family patterns in industrialised countries. Marriage rates have decreased and consensual unions have increased considerably, fertility has reached low or even very low levels, marriage has started to lose its hegemony as a dominant mode of partnership and context for childbearing, and family formation comes later in life. These developments have been paralleled with profound changes in the roles of men and women, as reflected in the achieved parity in educational attainment and closing gap in the levels of workforce participation. Also, during the same period, ideational change has shifted people's attitudes towards a greater acceptance of new behaviours.

The observable synchronicity of these trends has given rise to research focusing on the relationship between the change in family and fertility patterns on the one hand, and gender roles on the other. The explanatory framework in this research has originated in economic theories that predicted prevalently negative consequences of women's increased independence for the family [Becker 1981; Ermisch 1996]. Based on the assumption of the male-breadwinner family model the economic paradigm, however, failed to incorporate the varying features of the societal context in which the family formation decisions are made. In this respect, recent research has drawn attention to a dynamic interplay between the societal and family level gender relations that modulates the outcomes in terms of union formation and fertility [Chesnais 1996; Mason 1997; 2001; McDonald 2000; 2002]. Empirical evidence in support of these theses has come from a number of studies that have highlighted the role of gender system across different socio-economic and cultural settings [e.g. Blossfeld 1995; Blossfeld et al 2005; Corjin and Klijzing 2001].

This article seeks to complement the referred body of comparative research on family initiation behaviour by analysing the first union formation in the three Baltic countries. The main objective is to analyse the patterns of entry into first conjugal union in Estonia, Latvia and Lithuania, in the context of transforming gender relations. To ascertain the influence of gender system, the study focuses on the characteristics such as education and labour force participation, which are known to indicate the prevailing split of responsibilities between men and women. Although there are detailed studies published on individual countries [e.g. Katus, Puur and Põldma 2002; Stankuniene 1997; Vikat 1994; Zvidrins and Ezera 1999], cross-country research focusing on family formation in the Baltic region appears scarce. Therefore, this article also aims at filling in one of the current gaps in the geography of comparative family studies.

The study employs microdata from national surveys conducted in the framework of the European Family and Fertility Surveys programme. Partnership histories of the birth cohorts 1945-73 that are available for all three countries provide an insight into the development of union formation from the late 1960s until mid-1990s. In case of Estonia, Latvia and Lithuania, this timeframe of the study mainly refers to the later decades of state socialism, moulded according to the Soviet model¹. In this respect, the results are expected to complement the evidence, pertaining to a similar societal regime, that has become available for other countries of the former Eastern bloc, including East Germany, the Czech Republic, Hungary and Poland [e.g. Kantorova 2004; 2006; Kreyenfeld 2006; Olah and Fratzcak 2003; Robert and Bukodi 2005; Speder 2005].

¹ The change of the regime is also captured by the data, however, due to short exposure the analysis of the transformed family initiation patterns since 1990 should be postponed until a new round of comparative surveys in the framework of Gender and Generations Programme becomes available.

A particular interest in studying family formation in the Baltic countries in comparative perspective stems from the close similarity of the institutional setting that prevailed in all three countries over a long period of time. From a scholarly point of view, this condition forms a favourable point of departure for contrasting the influence of institutional factors versus long-standing cultural differences and previous family/population dynamics. Along these lines, the invariability of the patterns between the countries would imply that gender context is predominantly shaped by society's institutional framework, whereas dissimilar patterns would lend support to the fundamental importance of cultural influences. Also, at least in part, an answer to this question will help to understand the growing demographic diversity in the region during the past decade, and envisage future developments.

To address these issues, this article is structured in six sections. Following the introduction, the second section starts with a brief discussion of theoretical considerations, which highlights the relationship between family formation and gender system. The next section describes the contextual similarities and dissimilarities between the Baltic countries, relevant for the analysis of family patterns. The fourth section explains the data and analytical approach applied in this article. The fifth section presents the empirical findings, obtained by means of both descriptive techniques and multivariate event-history models. The concluding section presents the summary and discussion of the findings.

2. Theoretical considerations

Perhaps the most frequent starting point for the explanation of nuptiality trends in industrialised countries relates to the micro-economic theory, which attributes the decrease in marriage and parenthood to the change in gender roles, in particular to the increased economic independence of women. As argued by Becker in his influential work, "A Treatise of the Family", growing educational attainment and labour force participation have reduced their incentives to marry and have children (1991).

The logic behind Becker's argument is that as women receive education on an equal footing with men and get better opportunities in the labour market, the economic gains from marriage tend to become less significant. With decreased specialisation in housework skills, they are no longer dependent on their partners' economic performance and can earn a living on their own. In addition, the opportunity costs of time spent for the family are also seen to increase with the accumulation of human capital, via foregone earnings and slower pace of career advancement. In the micro-economic framework these mechanisms have led to the formulation of an economic independence hypothesis according to which better education and stronger attachment to the labour market among women would translate into lower propensity of union formation. In a broader view, the same reasoning could be extended to childbearing and union dissolution [e.g. Ermish 1996; Gustafsson and Kalwij 2006].

Among men, on the other hand, the New Home Economics posits an opposite outcome. With reference to the settings with a more or less complete role specialisation, family formation will hardly interfere with men's role as the main provider of family income. This makes men with a higher earnings capacity more attractive as potential partners and leads to the expectation of positive effects of educational attainment and established labour market position on family formation, be it conjugal union or parenthood.

Despite its relatively wide appeal, however, the independence hypothesis has lacked strong support in empirical studies. On the macro-level, there is certainly an observable parallelism between the macro-level trends in women's educational attainment, labour market attachment and family formation in many countries. But at the same time, the findings pertaining to a number of micro-level studies from Europe and the United States [e.g. reviews by Santow and Bracher 1997, Liefbroer and Corijn 1999; Billari and Philipov 2003] show that not only the strength but also the direction of the effects of educational attainment and labour market attachment on union formation have been found to vary from one country to another. And by the same token, a case can also be made for substantial variation of these effects within countries, for example by birth cohorts and age.

From the methodological point of view, the reasons underlying the mixed evidence referred above, are not difficult to comprehend. As pointed out by Mason and Jensen (1995), Becker's theory rests on the overly static view of the incompatibility of education, work and family life — in particular, it tends to conceptualise social processes as resulting from the decision-making of atomised individuals, operating under the traditional male breadwinner model². In doing so, the micro-economic approach effectively fails to recognise that the terms upon which the costs and benefits of family formation are evaluated, are not fixed but subject to change across time and societies. Consequently, the division of labour assumed in the classical micro-economic approach may not apply to many settings.

As an extension to Becker's argument, our theoretical point of departure in this article is that family formation is linked in a complex set of relations to other factors, among which the significance of the gender context has become increasingly recognised during the past decade. To account for this, Mason [1997; 2001] has employed the concept of gender system as a set of socially constructed beliefs, norms, socially constructed practices and sanctions for male and female behaviour that are found (in a variable form) in every society. A gender system's expectations prescribe a division of labour and responsibilities between men and women and grant them different rights and obligations. Also, it is important to note that the compatibility between family formation prescribed by the gender system is not limited to particular institutions but encompasses virtually all levels of societal organisation (family, educational system, labour market and employment relations, welfare state regimes, political institutions etc).

It follows that when individuals and institutions operate on the basis of an assumption that men should engage in full-time labour market activity and women primarily in housework, we can say that there is a high degree of gender role differentiation. Under such system, it is evidently more difficult for women to reconcile the demands of family life and labour market career. And conversely, egalitarian gender relations in the public as well as the private spheres are seen to reduce the conflict between the competing demands and facilitate the combination of market work and family responsibilities. The empirical evidence in support of these theses has been quite strong in comparative studies of family formation [e.g. Blossfeld 1995, Blossfeld et al 2005; Corijn and Klijzing 2001]. The higher the dominance of gender equality as a cultural value within

² In the context of contemporary developments, the male breadwinner model is frequently labelled as 'traditional', as opposed to 'modern' dual earner family. However, historical research in family models has pointed to the fact that the development towards symmetrical roles can be regarded, to an important extent, as a return to the pre-industrial model. In long-term perspective, the single (male) breadwinner family constitutes a relatively recent invention which enjoyed popularity in industrialised countries during a relatively short timespan in the late 19th and 20th century [Davis 1984; Pott-Butter 1993].

society, and the better the structural opportunities for female employment, the less polarised is the impact of educational attainment and labour force participation between men and women.

This article confronts the above described theoretical perspectives with the evidence from the Baltic countries at the later stage of state socialism. We focus on the patterns of union formation among men and women, and hypothesise the presence of systematic differences across countries. Ascertaining these differences will further lead to questions about their origin and a plausible link to the gender context. To prepare a stage for the analysis, the next section briefly outlines some general features of the demographic, economic and cultural background of the countries that are relevant to the analysis of family formation.

3. The comparative setting

The Baltic countries are neighbours that share a number of commonalities, which have been strengthened by the broadly similar history during the 20th century. At the same time, the previous experiences of these nations offer a wide variety, with salient differences that have maintained their validity until today. Therefore it is advisable to start from a longer demographic view.³

In terms of nuptiality, Estonia, Latvia and Lithuania historically belonged to the area of West European marriage pattern [Hajnal 1965]. This pattern of relatively late marriage, with a remarkably high proportion of population never marrying became established in the region by the 18th century and persisted until the Second World War. Leaving aside Ingria, which was inhabited by Finno-Ugrians but re-populated after the establishment of St. Petersburg, the Baltic countries and Finland formed the boundary of the spread of the pattern in the north [Sklar 1974; Palli 2004].

The dynamics of fertility transition, which marked a principal shift to the modern regime of population reproduction, has been comprehensively studied within the framework of the Princeton European Fertility project [Coale and Watkins 1986]. Nuptiality and fertility indices derived from the Princeton project indicate that the transition progressed with varying pace in the Baltic region. In Estonia and Latvia, the onset of fertility transition dates back to the mid-19th century, and judging by the spread of parity-specific family limitation and related characteristics, the emergence of modern population reproduction in Estonia and Latvia has been the earliest among the nations included in the Russian Empire and synchronous with the pioneering nations of fertility transition in Northern and Western Europe [Coale, Anderson and Härm 1979; Katus 1994; 1997]. With respect to Lithuania, the demographic transition took start several decades later, however, after the beginning of the 20th century the progression towards the modern regime of population reproduction intensified.

The simultaneous collapse of the Russian and German Empires during the First World War opened an opportunity for the Baltic peoples to build their nation states. With respect to demographic regime, Estonia and Latvia approached the underreplacement fertility and slow alteration of generations already in the late 1920s, while in Lithuania, the transitional fertility decline was well in progress. A closely similar pattern, with the two

³ Treatments that comprehensively and comparatively cover the development of all three Baltic countries have been relatively few. For international readers, reference to works by Rei [1970], von Rauch [1974], and Misiunas and Taagepera [1993] published beyond the Iron Curtain can be given. A recent survey of economic history is available from Kahk and Tarvel [1997].

northern neighbours being more advanced, was repeated in the timing social and economic modernisation [Kahk and Tarvel 1997; Mitchell 2003]. The provinces of Estland, Livland and Kurland — that later become Estonia and Latvia — were the first regions of the Russian Empire to abolish serfdom, and their lead was extended into the 20th century in many commonly reported indicators, such as the proportion of urban population, literacy rate, number of students, structure of employment, general living standard, circulation of newspapers, etc. Within the Baltoscandian region Estonia and Latvia came relatively close to Finland in terms of socio-economic development in the late 1930s while Lithuania was lagging behind [Lugus and Vartia 1993; Valge 2003].

The Second World War left the Baltic countries under the Soviet occupation, which lasted for almost fifty years. The new regime introduced a forceful societal rearrangement of the entire societal organisation by means of terror and mass deportations.⁴ In the early postwar decades the difference in demographic regime was still quite extensive, however, fertility and mortality levels moved gradually towards convergence. In Estonia and Latvia fertility stayed remarkably low (under replacement) in the 1950s and 1960s as both countries skipped a postwar baby boom, unlike other nations that experienced low fertility in prewar years [Calot and Sardon 1997; Festy 1984]. In the late 1960s, contrary to the general trend in demographically advanced countries, Estonian and to somewhat lesser extent Latvian fertility, surprisingly, increased and stayed close to replacement until the turn of the 1990s. In Lithuania, the period following WWII has been marked by a more or less continuous decline until the late 1970s. In the 1980s, Lithuania's fertility level increased somewhat but more importantly, for the first time since the onset of demographic transition, the level converged with that of Estonia and Latvia. The trends in union formation during the same period are discussed in detail in the following sections of the article.

Turning to institutional framework in the postwar decades, the convergence between the Baltic countries appeared strong and steep — from the onset the Soviet authorities followed a strategy of far-reaching centralisation and introduction of uniform models in virtually all fields of administration.⁵ This directly applies to the structures that framed the daily living and life courses of the population, including the functioning of the labour market and economy in general, organisation of educational system, allocation of housing, health care and social protection, pension schemes, etc [Mertelsmann 2003].

The high degree of uniformity also extends to the societal gender system, in that respect Estonia, Latvia and Lithuania share the characteristics that are generally associated with state socialist regimes throughout Central and Eastern Europe. Women in the Baltic region featured very high attachment to the labour force already in the late 1950s, in international comparisons the Baltic countries ranked top as to the level of female employment, overwhelmingly in full-time jobs [Puur 1995; 2000]. As elsewhere in the CEE countries, employment was defined as a state-guaranteed social right but at the same

⁴ The combined human losses resulting from war and its aftermath were extensive in all three countries, estimated at the levels above 30 per cent [Misiunas and Taagepera 1993]. As the countries had reached different stages of demographic development by that period, the long-term consequences of these losses appear rather dissimilar. Disregarding the direct and indirect effects of immigration, Estonia and Latvia are among the few countries in Europe where the prewar number of population has not been reached. In case of Lithuania, the relatively rapid population growth supported the replacement of losses and increase of population above the prewar number.

⁵ In terms of legal framework, for example, the norms of the Russian Federation were directly enforced in the 1940s-1950s. Later the so-called republican regulations were introduced, however, their country specificity was limited to details of secondary and tertiary importance [Katus, Puur and Põldma 2004].

time, it was regarded as an obligation towards society for all able-bodied citizens, be it men or women. Consequently, the proportion of women who chose to become full-time housewives after marriage or childbirth was very small and the dual-earner family model clearly prevailed in all three countries. In the 1970s and 1980s, the gender gap in economic activity was almost entirely attributable to women who were currently on maternity and childcare leave.

From the economic point of view, the dual-earner family model was supported by a low level of administratively set wages, which made it difficult for most families to cope with single income. Yet another factor that contributed to the convergence of labour force participation between men and women, and to the gender equality in societal institutions in general, was the growth in female educational attainment. According to census data, in all three countries the previous gender gap in tertiary education was closed in the cohorts born in the early 1940s, who completed their studies in the 1960s. In the subsequent generations the proportion of university graduates appeared systematically higher among women, with the female advantage expanding towards younger generations. A closely identical pattern — women having higher educational attainment than men — is also characteristic of the level of secondary education where a reversed gender gap can be traced back to the birth cohorts of the 1930s. Furthermore, owing to the unified model of a centrally planned education system, the proportions of people who attained secondary and tertiary education appear highly similar between Estonia, Latvia and Lithuania in the cohorts covered by this study.⁶

The societal gender context also included various provisions designed to back the dual earner family model and facilitate the reconciliation between women's employment and family responsibilities. A central element in this field was public childcare, which started to develop rapidly in the 1960s, in the following decades the supply of service in the Baltic region reached levels comparable to Hungary and the Czech Republic [Stankuniene 1991; UNICEF 1999]. The schemes for the care of very young children also followed the same model in all three countries. The corresponding provisions were relatively limited during the early postwar decades but then got gradually extended. Beginning in 1968 women were entitled to take unpaid leave until the child's first birthday, without losing their jobs and maintaining an uninterrupted employment record. Further extension of provisions came in 1981 when the duration of partly paid leave (relatively low flat rate benefits) was extended to one year, and the unpaid leave to 18 months. At the eve of societal transition, all three countries introduced an additional extension that allowed mothers to stay on leave until the child's third birthday.

Against the background of relatively advanced gender equity in the public sphere, there is evidence that less progress was achieved in family-level gender relations. The results of sociological surveys conducted in the 1970s and 1980s point out that childrearing responsibilities were shared along the traditional gender roles and the division of labour was characterised by housework mostly done by women [Kelam 1986; Stankuniene et al 2003]. In broad outline, these features held true throughout the Baltic region, however, different methodology of the surveys prevents from presenting comparable evidence for Estonia, Latvia and Lithuania. What appears also common for all three countries is that the division of roles in domestic sphere along traditional lines was reinforced by several features of the institutional framework. For instance, the structure of administratively set wages indirectly favoured the sectors and occupations with male

⁶ In tertiary education, the rapid expansion continued until the late 1960s. From that point on, however, the proportion of university graduates remained virtually unchanged for more than two decades.

workforce, consolidating the role of women as secondary earners. When the previous regulations were abolished, the gender gap in wages witnessed a decrease at the turn of the 1990s [Noorkõiv et al 1998]. The eligibility for childcare leave was limited to mothers, which also supported the gender-specific division of roles in the private sphere.

Regarding the cultural dimension, the Baltic region is characterised by a long-standing divide between the Protestant (Lutheran) and Catholic domains. As is well known, Estonia belongs to the former, Lithuania represented the latter, and the territory of modern Latvia was split between the two influences — the provinces of Kurland and Livland became prevalently Lutheran whereas Latgale, due to its association with Lithuania, maintained the Catholic tradition. Along with this divide, the secularisation and related shifts in mentality took start relatively early in Estonia and Latvia while in Lithuania the Church maintained its authority well into the postwar decades [Plaat 2003; Vardys 1990].

Turning to values and cultural differences, comparable data on Estonia, Latvia and Lithuania for the period addressed in this study is difficult to obtain. Social research was kept under strict ideological censorship and apart from behavioural patterns the corresponding information gap cannot be filled in by means of retrospective data collection. With respect to cultural differences we can refer to a comparative study by Mellens (1999) who performed an analysis of socio-economic and cultural diversity, which may be relevant from the demographic point of view, for more than thirty countries. Based on a broad set of variables, his conceptualisation of cultural dimension included power distance, conservatism, gender equality, individualism and post-materialism. Along this dimension Estonia and Latvia were positioned relatively close to the cluster of Nordic countries, while along the socio-economic dimension, the Baltic countries were clustered closely together. Although these findings are based on the data from the beginning of the 1990s, it can be assumed that due to the persistence of cultural characteristics, the validity of the observed pattern extends to the preceding decades.

We will return to these contextual differences and discuss their possible relationship to union formation in the concluding section.

4. Data and analytical approach

The data used in this article come from national surveys carried out in Estonia, Latvia and Lithuania within the framework of the European Family and Fertility Surveys programme. The programme was coordinated by the United Nations Economic Commission for Europe and altogether covers 25 countries in the ECE region.

The surveys were based on the life course approach and contain full retrospective histories of partnership formation and dissolution, childbearing as well as educational and employment careers, and residential mobility. This orientation of the surveys allows to place family formation in a multidimensional biographical perspective, to unveil the interactions between the familial, educational, occupational and other facets of individuals' lives. A common core questionnaire applied in national surveys and the conversion of microdata into standardised format facilitates the comparison between countries. Another important feature of the FFS programme, compared to its predecessors, relates to the fact that the data were collected on both women and men. From an analytical point of view, independent samples for women and men have allowed the incorporation of the gender dimension in a wide range of biographical analyses.

In all three Baltic countries, the FFS was the first survey to provide nationally representative event history data on major life careers of the population. The surveys were conducted in a relatively close time period around the middle of the 1990s. In Estonia, the data collection on women and men was split between a female survey conducted in January-November 1995 and a male survey with the time-lag of two years. The data for the Latvian survey were collected in September-October 1995, the fieldwork for the Lithuanian survey started in October 1994 and ended in December 1995. All countries used the method of random sampling to draw representative probability samples, although the frame and specific procedures varied⁷. In Latvia and Lithuania, the survey covered resident population in the currently fertile age span of 18-49 which translates into birth cohorts 1945-1977. In order to follow the developments over a longer run, the Estonian survey extended the range of the target population twenty years beyond the fertile age and covered the birth cohorts 1924-1973.

Following the general practice in the FFS programme, all three countries opted for proportionally larger samples for women. As a result, there are 5,021 female and 2,511 male respondents in the Estonian survey, the Latvian survey contains 2,699 female and 1,501 male respondents, and the Lithuanian survey resulted in 3,000 interviews with female and 2,000 interviews with male respondents. The response rate reveals an increase from south to north — in Lithuania 71 per cent of women and 66 per cent of men in the original sample were successfully interviewed, in Estonia the corresponding percentages amounted to 85 per cent for women and 81 per cent for men, leaving Latvia in the middle position (77 and 73 per cent respectively). A somewhat lower accuracy of the Lithuanian survey, which extends to event dating and consistency with external sources, has also been observed in the data quality evaluations of the FFS programme [Festy and Prioux 2002; Klijzing and Cairns 2000].

The event of central interest in this study is the entry into a first conjugal union, whether by registered marriage or non-marital cohabitation where partners start shared living in the same household. Within the life course framework, the first union marks perhaps one of the most important transitions made by men and women in their transition from adolescence to adulthood. Traditionally it was marriage that signalled the onset of family formation, and consequently, played a main institutional role for the entry into parenthood. In the recent decades, however, this chain of events has transformed considerably with the increasing prevalence of non-marital cohabitation. To account for these developments and secure the general comparability across countries and over time, the pathways of partnership formation are combined in this article. A similar approach has been adopted in several recent studies, focusing family formation in Eastern Europe [e.g. Billari and Philipov 2003; Kantorova 2004; Aassve, Billari and Speder 2006].

Another note refers to the definition of our working sample used throughout the study. To make the samples more homogeneous, we have restricted the analysis to the native population for all three countries. This leaves aside the immigrants who arrived in the Baltic countries after WWII, together with their second generation. The immigration started immediately after the return of the Soviets in 1944 and continued for more than four decades, bringing along an extensive shift in the population structure, particularly in the case of Estonia and Latvia [Sakkeus 2003]. Judging by the ethnic composition, the proportion of non-titular nationalities reached the highest level in Latvia — in the first

⁷ A concise description of the methodology of each survey, together with the overview of main findings and comparable standard tabulations is available from the country reports published by United Nations Economic Commission for Europe [UNECE 1998; 2000a; 2000b]. A reference to national publications is included in the FFS website.

postwar census in 1959 the share of non-titular ethnic groups comprised 38 per cent of the population, by 1989 the corresponding proportion had almost reached parity (48 per cent) with Latvians. In Estonia, the 1959 census indicated the share of non-titular groups at 25 per cent, in 1989 it was close to 39 per cent.⁸ In Lithuania, the population composition was less affected by immigration and the proportion of Lithuanians kept close to the level of 80 per cent.

The main reason for leaving the immigrant population aside relates to the demographic patterns that reflect the population development in their regions of origin, in the Russian Federation and other parts of the former Soviet Union. Historically these areas did not share the experience of the West European marriage pattern and featured a noticeably later timing of demographic transition. Although these features relate to the past, analyses have shown that differences in behavioural patterns between the native- and foreign-origin population persist, including family formation. Particularly in Estonia and Latvia, the relative size of the foreign-origin populations renders the estimates for the total population an aggregate of rather divergent, sometimes contrasting elements. The heterogeneity inherent in such estimates noticeably blurs the picture, particularly with respect to international comparisons. The specificity of demographic patterns among the foreign-origin population is discussed elsewhere [e.g. Katus, Puur and Sakkeus 2002; Sakkeus 2000, 2003].

In the following sections, the analysis of union formation is structured in two parts. In the first part, the cohort trends in the timing and the mode of union formation (direct marriage versus non-marital cohabitation) are examined by means of descriptive methods. In the second part, multivariate Cox regression models are applied to explore the influence of educational attainment and economic activity status, controlling for the effects of other factors, which are known to affect union formation. To reveal the variation in direction and strength of the relationship under interest, the analysis is country- and gender-specific throughout. In detail, the specification of models and covariates are discussed in the sections that follow.

5.1. Trends in first union formation

The presentation of the findings starts from a descriptive analysis which addresses the trends in the timing and type of first union. Together these two dimensions capture the major shifts that have occurred in behavioral patterns in the Baltic region over the past few decades, and allow a comparison with developments in other countries.

The analysis applies five-year birth cohorts and country as the main units. Cohort membership and country can be related to particular social and cultural contexts that the people face while growing up and starting their adult lives. With respect to Estonia, the data permit to follow the trends starting from the cohorts born in the mid-1920s until those born in the early 1970s, for Latvia and Lithuania the observation starts from the cohorts born in the second half of the 1940s. In terms of calendar time, these are the generations,

⁸ Although the corresponding Estonian figure was eight percentage points lower compared to Latvia in 1989, the change of the population composition had been more extensive in Estonia. In the course of WWII, Estonia lost four out of its five historical national minorities, and it has been estimated that by 1945 ethnic Estonians formed more than 97 per cent of the total population of the country. In Latvia and Lithuania, the proportion of the historical minority populations was higher, in both countries titular nationalities accounted for slightly more than 80 per cent after the war [Zvidrinsh 1995].

which carried the nuptiality trends between the late 1960s (from the late 1940s in case of Estonia) and the early 1990s.

5.1.1. Timing of first union

The panels of Figure 1 present the entry into first union formation by means of survivorship functions, whether by marriage or non-marital cohabitation. Although the cohorts covered in the surveys had reached very different stages in their partnership careers by the time of data collection, the life table method underlying the calculation of survivorship functions renders the cumulative proportions of ever-partnered women and men comparable and permits to draw conclusions before the process of union formation is complete.

Starting from Estonia with the longest cohort span covered by the survey, the data reveal a continuous and extensive shift towards a younger entry into first union, which evidently started in the pre-FFS generations. This long-term shift in the timing of union formation relates to the disappearance of the West European marriage pattern, discussed in the previous sections. In the three oldest cohorts of the Estonian FFS, born in 1924-38, the juvenation of partnership formation was mainly concentrated on the later end of age spectrum: the biggest increase in the cumulative percentage occurred beyond age 25. At the same time it is interesting to note that the referred shift did not concern the ultimate proportion of ever-partnered — by age 50, about 95 per cent of women (as well as men) had entered conjugal union, a level that does not vary noticeably across cohorts.

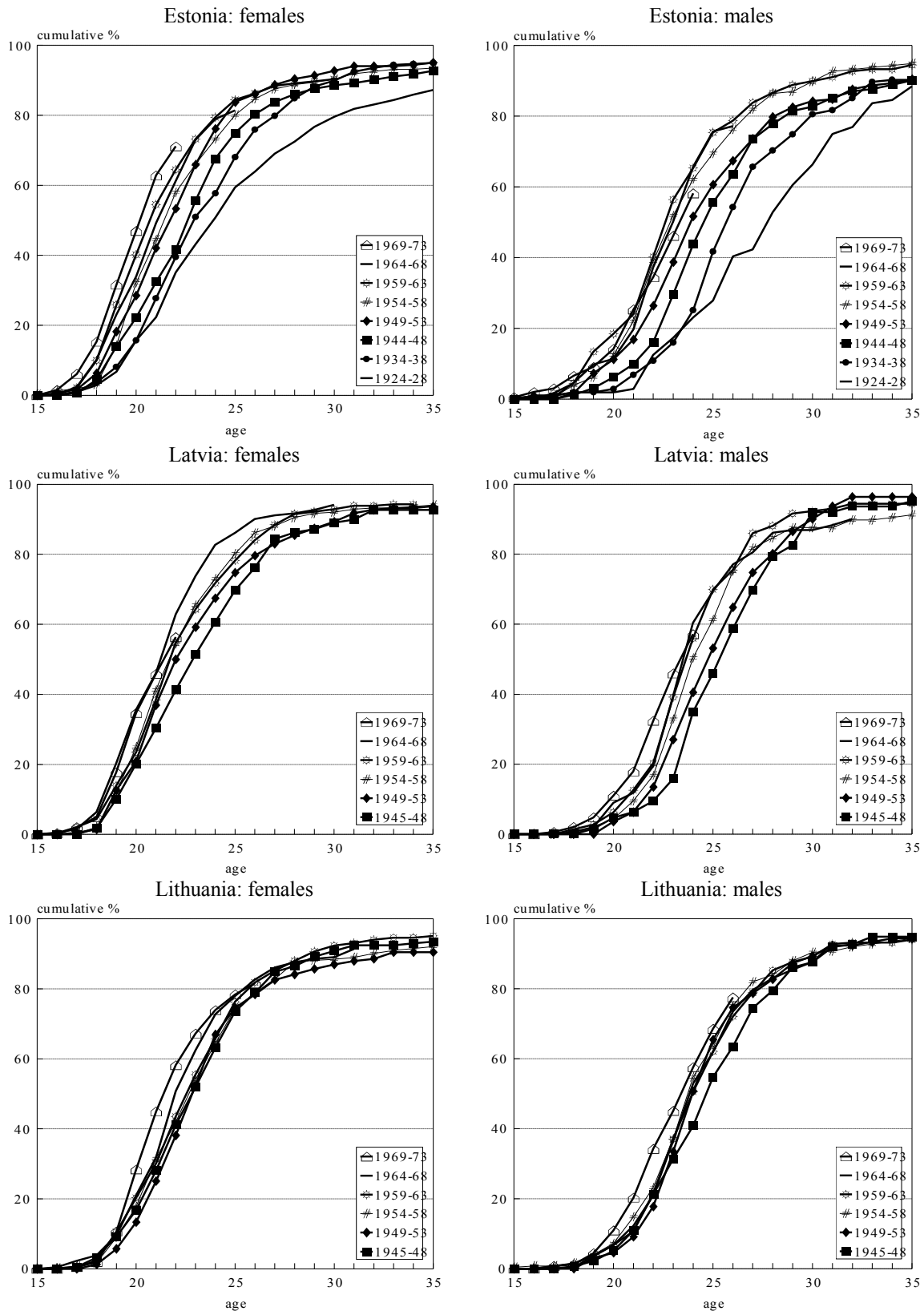
In the following generations, the changes in the timing of first union shifted towards the younger end of age spectrum. For example, from the 1939-43 cohort to the 1964-68 cohort the percentage of women who entered their first partnership before age 20 more than doubled. Women born in the youngest cohort 1969-73 started their first partnership indeed very early: nearly one fifth of them were already in partnership at the age of 18. Similarly, among Estonian men the juvenation has been quite intensive, particularly in the birth cohorts of the 1940s and 1950s. Regarding younger cohorts born in the 1960s, however, the juvenation appears to have slowed down among men.

Although a shorter cohort span in the Latvian FFS prevents us from following the developments in the generations born before 1945, the comparison of survivorship functions reveals a noticeable shift towards earlier union formation also in Latvia. With respect to females, a more or less continuous juvenation can be traced until the 1964-68 birth cohort, which reached the prime age of partnership formation in the late 1980s. Only in the youngest generation the shift towards earlier union formation displays some signs of slowing down. A systematic and relatively extensive shift towards earlier union formation is characteristic of Latvian men as well: the proportion of men who had started their first union by age 21, for example, has almost tripled between the 1945-48 and 1969-73 birth cohorts. In general, populations of Estonia and Latvia exhibit largely similar trends in the timing of union formation when judged by survivorship functions.

The shift towards earlier union formation can be observed also in Lithuania, but following a somewhat different trajectory. Unlike its neighbors, there was virtually no change in the timing of entry into first union formation in Lithuania among the female cohorts born between the late 1940s and early 1960s. Leaving aside apparently random fluctuations in older age intervals, in the prime age of partnership formation survivorship functions virtually overlap for these birth cohorts. A clear shift towards earlier union formation becomes evident only in a couple of youngest five-year cohorts. Basically

similar conclusion can be reached for men, although there are slight differences associated with specific cohorts.

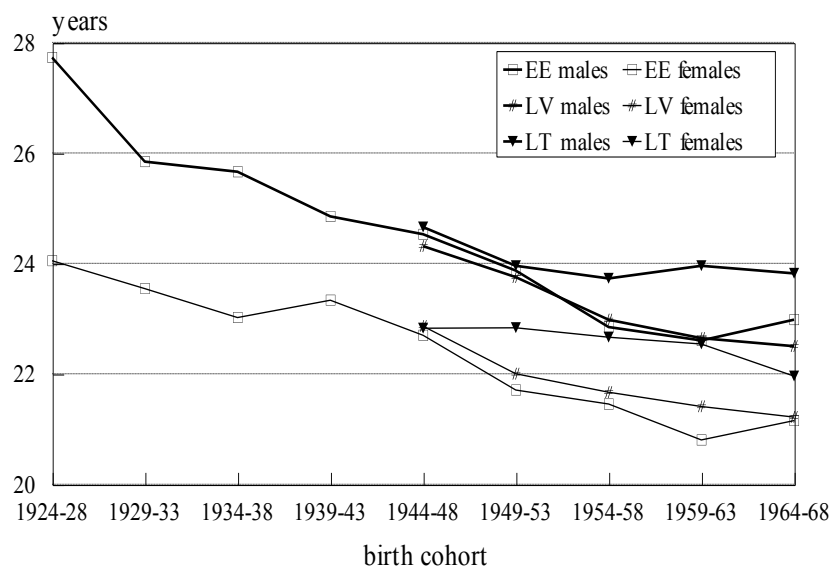
Figure 1. TIMING OF ENTRY INTO FIRST UNION
 Baltic countries, birth cohorts 1924-73



Source: FFS database

Similarities and dissimilarities in the timing of union formation across the countries can be conveniently summarised by means of median age at entry into first union. First of all, the evidence from Figure 2 is generally consistent with the findings based on marriage registration and confirms the prevailing tendency towards earlier union formation in the Baltic region in the 1970s and 1980s. With respect to both women and men it is also interesting to note a high similarity in the median age of union formation between the countries among the birth cohorts of the 1940s (the earliest cohorts for which the FFS data are available for all three countries). Judging by the evidence drawn from marriage registration — more or less parallel decline in the mean age of first marriage after the disappearance of the West European marriage pattern — the observed similarity can probably be extended to the preceding birth cohorts covered in the Estonian survey.

Figure 2. MEDIAN AGE AT ENTRY INTO FIRST UNION
Baltic countries, birth cohorts 1924-68

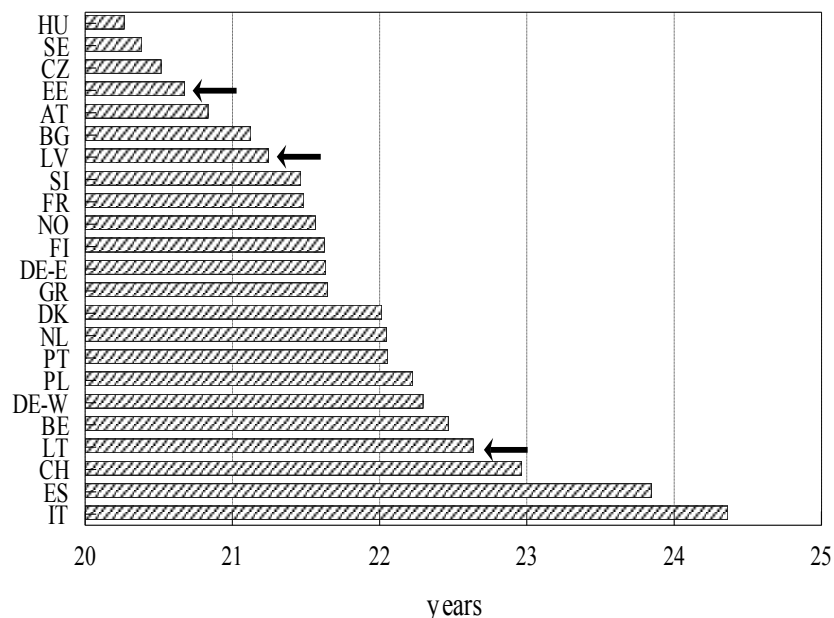


Source: FFS database

Although the trend towards earlier union formation has been predominant in all three countries, the figure also points to country-specific peculiarities that appear starting from the birth cohorts of the early 1950s. In Estonia and Latvia, the median age at first union continued to decline, and a further shift towards earlier union formation followed until the generations born in late 1960s in Latvia and in mid-1960s in Estonia (the very youngest FFS cohorts are excluded because of censoring). Conforming with the observation from survivorship functions, in the same generations in Lithuania the juvenation of partnership formation came to a halt and the median age at first union remained largely unchanged. This resulted in a growing difference in the timing of union formation that peaked in the 1959-63 birth cohort. In that generation, Estonian women started their first partnership on average 1.7 years earlier than their Lithuanian counterparts, for men the corresponding difference was somewhat smaller, accounting for 1.2 years. In general, this difference may seem not particularly extensive but it should be considered against the background of close similarity in the earlier generations. And as a result of the stronger continuity of the trend, the scope of overall juvenation in union formation appears more pronounced in Latvia and Estonia.

The data from other FFS countries offer a favourable opportunity to place union formation in the the Baltic region into a wider comparative perspective. Figure 3 presents the median age at first union for women in the cohorts born in the early 1960s, who shaped the partnership formation observed before the turn of the 1990s. In general, the data highlight a considerable diversity in the timing of partnership formation, although the contrast between the earliest and latest entry into the first union appears less extensive than suggested by marriage registration (according to the database of the European Population Committee, the range of variation in the mean age of first marriage accounted for six years in the corresponding period).

Figure 3. MEDIAN AGE AT ENTRY INTO FIRST UNION
Baltic countries in comparative perspective, female birth cohorts 1959-63



Source: FFS standard country reports

The comparison indicates that Estonia and Latvia belonged to the countries with relatively early entry into first union, which once again underlines the extent of the shift towards earlier partnership formation. The three FFS countries with the lowest median age at first union include Hungary and the Czech Republic, which is consistent with the expectations derived from marriage statistics, however, perhaps less expectedly the top three also includes Sweden that has for several decades held a position of the latest-marrying nation in Europe. Likewise, a fairly early partnership formation — median age around 21.5 years for females — is characteristic of other north European countries for which the comparable data are available. This seeming contradiction with marriage statistics is of course not accidental but reflects the disconnection of *de facto* union formation from marriage, which is most strongly pronounced in the latter region.

Turning back to the Baltic countries, the comparison with other countries also exemplifies the distinct pattern of union formation in Lithuania. According to the figure, among the FFS countries Lithuania features the fourth highest age at first partnership formation after Italy, Spain and Switzerland. It is important to note that the relatively late onset of union formation in Lithuania is not restricted to women born in 1959-63, but is almost equally characteristic of most other cohorts covered by the survey.

5.1.2. Mode of union formation

A characteristic feature of modern family initiation has been the disconnection of partnership formation from marriage. As noted above, over the past three decades it has become increasingly common for young people in many countries to start living together without being married. With respect to the Baltic countries, the FFS offers the first possibility to explore the diffusion of the corresponding behavior on the basis of nationally representative data.

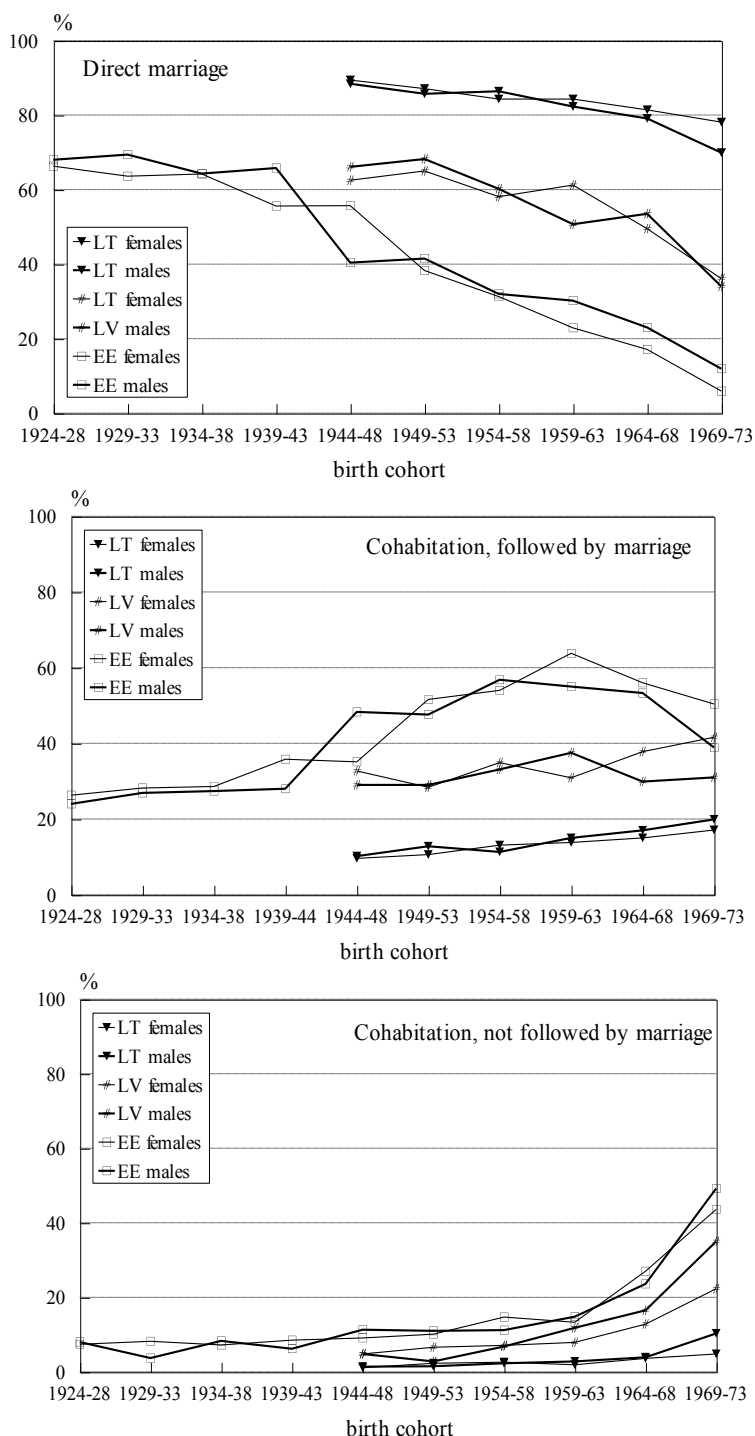
In the life course framework, the prevalence of cohabitation usually refers to the mode of union formation, making the distinction between direct marriage and cohabitation, which may or may not be converted into marriage at a later stage. The first option represents a traditional pathway of partnership formation whereas the other modes reflect the growing acceptance of partner relations outside marriage, either as a prelude to marriage at the beginning of the union or as a more permanent living arrangement. Figure 4 presents the corresponding percentages in Estonia, Latvia and Lithuania against the total number of women and men who have started their partnerships in a given cohort, filtering out the individuals who remained single by the time of the survey.

Even a brief glance at the figure is enough to reveal an extensive inter-cohort change in the mode of union formation as well as a difference between the countries. Perhaps the most striking feature is that in Estonia, direct marriage had lost its overwhelming predominance already in the earliest generations covered by the survey — direct marriage accounted for about two thirds of first unions, a proportion that remained fairly stable in the 1924-38 cohorts. Starting with the cohorts born in the 1940s who formed their first partnerships mainly in the 1960s and early 1970s, the proportion began to decrease rapidly. In the 1944-53 birth cohorts it dropped below 50 per cent, which means that for the first time consensual union had replaced direct marriage as the mainstream route to family building. In the following generations entry into partnership through direct marriage gradually became an exception rather than a rule: in the 1969-73 cohort 11.2 per cent of men and only 5.9 per cent of women started their first conjugal union without preceding cohabitation.⁹

Latvia seems to have followed the same trajectory, but judging by the proportion of direct marriage and cohabitation, it lagged behind Estonia for approximately 15-20 years. The change in the mode of union formation progressed somewhat more slowly and the proportion of direct marriage fell below 50 per cent in the cohorts born in the late 1960s. In Lithuania, the adherence to the traditional mode of union formation has been clearly more persistent with direct marriage accounting for 90 per cent of first partnerships in the earliest generation. Although there has been a downward trend across the FFS generations, in the cohorts born in the early 1970s still around 70-80 per cent of Lithuanian men and women started their first partnership as direct marriage. The difference in the patterns is also emphasized by the fact that in the youngest Lithuanian cohorts the proportion of direct marriage exceeds the corresponding levels observed among the oldest FFS cohorts in Latvia and Estonia.

⁹ For the youngest cohorts the decrease is slightly overestimated because it does not consider unions contracted at older ages. A systematically higher proportion of direct marriage among men born in the 1960s and 1970s, compared to women in the same cohorts, evidently reflects the later date of data collection in the male survey of the Estonian FFS.

Figure 4. MODE OF UNION FORMATION
Baltic countries, birth cohorts 1924-73



Source: FFS database

The second and third panels of Figure 4 indicate that the decrease in the proportion of direct marriage has resulted mainly from the increase in cohabitation, followed by marriage. In Estonia, the proportion of unions that started as cohabitation but were converted into marriage at a later stage ranged between 25-30 per cent in the oldest FFS

cohorts. In the 1939-58 birth cohorts the corresponding proportion more than doubled but after reaching a peak the trend reversed. This turn in the trend indicates a change in the nature of consensual unions — starting from the cohorts born in the early 1960s the data reveal a sharp increase in the proportion of consensual unions, which had not been transformed into marriage. Although the latter development could be attributed partly to the censoring of observation at the time of the survey, the break in behavioral patterns is beyond doubt. From the viewpoint of partnership career, this implies a rapid extension in the duration of unmarried cohabitation, which tended to be relatively short until the youngest FFS cohorts. In Estonia, about one half of the partnerships that started as cohabitation were converted into marriage by the end of the first year, by the end of the second year the corresponding proportion accounted for 65-70 per cent [Katus, Puur and Põldma 2002].

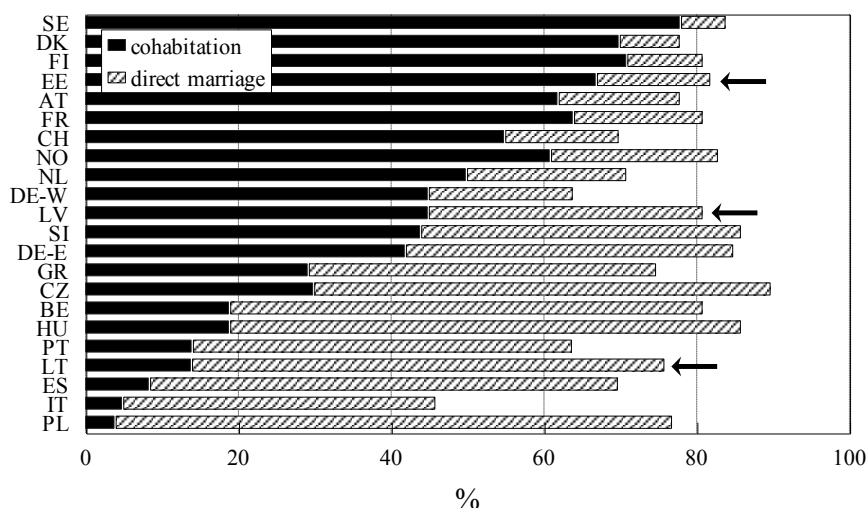
In Latvia, and particularly in Lithuania, the prevalence of consensual union has been lower. Despite acceleration of the changes towards the end of the cohort range, neither Latvia nor Lithuania had yet experienced a decrease in the proportion of consensual unions converted into marriage. In a broader framework it seems plausible that the variation in the mode of union formation also accounts for the differentials in the timing of union formation observed between countries. Less binding legal and social obligations associated with consensual unions together with higher and more rapidly increasing prevalence of non-marital cohabitation could at least partly explain the lower average age at partnership formation in Estonia and Latvia, discussed in the previous section. This assertion is supported by relatively close similarity between the Baltic countries in respect to median age at first marriage: the range of inter-country variation in the latter was, on average, limited to 0.4 years among women in the FFS cohort range.

Figure 5 places the mode of union formation in Estonia, Latvia and Lithuania into a comparative perspective of other FFS countries. The data presented for comparison represent the cumulative percentage of women born around the second half of the 1960s who had started their first partnerships by age 25, either through direct marriage or cohabitation. In the figure the countries are ranked according to the proportion of consensual unions among all partnerships, the complement to 100 per cent refers to women who remained single until their 25th birthday. In all countries but a few — such as Italy, Spain and West Germany — around 70-80 per cent had entered a conjugal union by the time of the survey, which warrants the comparability of the results.

In general, the data reveal significant differences across as well within the regions in Europe. As well known, the vanguard consists of the countries of northern Europe, headed by Sweden and Denmark, commonly regarded as the trendsetters of new family patterns. On the other extreme, non-marital cohabitation appears still relatively uncommon in southern Europe, exemplified by Italy and Spain. Against that background, the Baltic countries are dispersed all over the spectrum of union formation behaviour. Among the FFS countries included in the comparison, Estonia holds the fourth position from the top, after Sweden, Denmark and Finland. Lithuania, on the other hand, can be found among the four countries in the bottom group, before Spain, Italy and Poland. In other words, the patterns in Lithuania and Estonia really refer to the takeoff and concluding stage in the spread of non-marital cohabitation.

Between these two extremes, Latvia belongs to the middle group of countries, occupying the position next to West Germany. It is worth noting that also in Latvia, starting a partnership as unmarried cohabitation appears more common than in Slovenia and East Germany, the two other eastern bloc countries, which feature relatively high prevalence of consensual unions.

Figure 5. MODE OF UNION FORMATION
Baltic countries in comparative perspective, female birth cohorts 1964-68



Source: FFS standard country reports

In a broader framework of demographic trends, a prominent role of consensual unions in Estonia and Latvia can be seen also in the levels of non-marital childbearing. Following the post-war turbulence caused by Sovietisation, the proportion of non-marital births has increased steadily in both countries since the late 1960s, rather independent from the overall fertility. By the end of the 1980s it had almost doubled and reached 25 per cent in Estonia, while in Latvia close to 18 per cent of all children were born out of wedlock. Considering the native population, the corresponding figures were noticeably higher, lagging behind only Denmark, Iceland, Sweden and Norway [Katus 1997; 2003]. The evidence from the FFS attributes this growth almost entirely to the spread of cohabitation — in both Estonia and Latvia the proportion of births to single mothers, neither married nor cohabiting with a partner, fluctuated at the levels between 6 and 10 per cent. At the same time, Lithuania experienced virtually no increase in non-marital childbearing and in the end of the 1980s the proportion of non-marital births accounted for about 7 per cent of all children born in the country, basically the same proportion as three decades earlier.

5.2. Modelling the gender difference in union formation

In the following sections, gender differences in union formation are examined in the micro-level framework, with the main interest in the effects of educational attainment and labour force participation. To model the transition from singlehood to first union a series of hazard rate models were estimated. In this particular case, Cox's semi-parametric is used, which can be expressed as

$$r(t) = h(t) * \exp(bX),$$

where $r(t)$ is the hazard rate at which the event under consideration occurs at time t , $h(t)$ is the so-called baseline rate at t , and X is a vector of covariates, upon which the occurrence of the event is assumed to depend.

The main advantage of the Cox model is that the time dependence of the process does not have to be modelled. In the model, the baseline hazard can be left unspecified and the parameters are estimated applying a partial likelihood method. This is convenient in the multivariate framework, if one is not primarily interested in the shape of time dependence but in the associations between the hazard rate and covariates, controlling for time dependence of the event. As with other event history models, it integrates survival times and censored observations, and can also easily accommodate time-dependent covariates to study interdependent processes, which form an essential component of this analysis. A potential limitation of the Cox model is that, if the effects of covariates vary with duration, the parameter estimates will be biased.¹⁰ Although the requirement of proportionality restricts the range of potential applications, the Cox model has been widely used in empirical analysis, including family formation and dissolution [e.g. Blossfeld 1995; Liefbroer and Corijn 1999; Mills 2000; Rao 1990].

5.2.1. Variables and operationalisation

The dependent variable in our models is the rate of entry into a first conjugal union. The exposure is measured in months, starting at the age of 14 of the respondent and continued until the entry into first union, whether by marriage or cohabitation, or until censoring at the interview, whichever event comes first. In view of extensive differences in the mode of first partnership formation across countries and cohorts, discussed in the previous section, separate modeling of entry into union through marriage and cohabitation was not attempted in comparative setting.

Proceeding from the theoretical considerations outlined in the introductory section, the independent variables of main interest in this study relate to education and labour force participation.

With respect to education, previous research has underlined the importance of making a distinction between educational enrolment and attainment. The incompatibility between *educational enrolment* and union formation seems to be a common finding across a wide range of national and comparative studies [e.g. Billari and Philipov 2003; Blossfeld 1995; Blossfeld et al 2005; Cherlin 1992; Corijn and Klijzing 2001; Hoem 1986; Liefbroer 1991; Manting 1994]. The incompatibility is usually explained by the conflict of interests between spending one's time, energy and money on school or on the family and more limited resources of students, particularly in comparison with young people who have graduated from school. In the light of the job search theory, Oppenheimer (1988) related the delay in family formation to uncertainty: during a period of educational enrolment uncertainty is large because it is unclear how the individual's human capital and skills can match the demands of the labour market. In the context of the present article, however, this argument is probably less relevant. Other explanations, that do not necessarily contradict the former, have pointed to the societal norms about the sequencing of life course events, in particular the expectation that young people still enrolled in education should postpone family formation until the completion of studies [Blossfeld and Huinink 1991; Waite and Spitze 1981].

¹⁰ To counter this problem, various tests of proportionality assumption are recommended as a diagnostic solution [Blossfeld and Rohwer 2002]. In the stage of exploratory analysis, different model specifications, including piecewise constant proportional hazard models were applied. The results were closely similar to those obtained with the Cox model, indicating the robustness of the findings.

The studies that have covered both women and men have also revealed that the negative effect of educational enrolment on union formation tends to have a somewhat stronger effect on women [Goldscheider and Waite 1986; Corijn and Klijzing 2001]. In terms of gender system, the stronger effect observed among women may reflect role specialisation within the family, according to which women are considered more responsible for the household that they form and the family they create — consequently, the larger share of household and child care tasks assigned to women makes it more difficult for women to combine schooling and family formation. But at the same time, the expectation towards men as breadwinners puts certain limits to such gender-specific effect.

Educational attainment differs from enrolment as it represents the highest level of education achieved rather than the individual's educational participation at the time of a life event. According to New Home Economics, women who have attained higher educational levels are economically more independent from men in a society where the traditional division of roles prevails [Becker 1991].

Within the micro-economic framework the impact of educational attainment is considered to operate mainly through the accumulation of human capital. With their enhanced earnings capacity, higher educated women have fewer economic gains from partnership and are more likely to postpone or even forego union formation compared to their less educated counterparts. In addition, the opportunity costs of time spent on family increase with human capital and in the context of gender-specific division of labour within the family, these costs are typically higher among women. As regards men, the income effect has been hypothesised to dominate the relationship in the context of gendered division of labour. As main providers of the family income, men with the higher earnings potential are better equipped to support a family and are therefore more attractive as potential partners, resulting in a positive effect of educational attainment on the timing of union formation.

From another angle, these views have been contested by arguments that women's economic independence related to higher educational attainment can actually increase rather than reduce the benefits for a family unit and for its individual members. In particular, the family becomes less vulnerable in situations where one partner is unable to provide his/her contribution. Oppenheimer (1994) has pointed out that women's economic independence can even encourage union formation since it would take longer for young men alone to be able to provide support, especially when the labour market conditions are less advantageous. Also, educational attainment may operate through preferences, value orientations and the weight attached to independence and individual autonomy [Lesthaeghe and Moors 1996].

The effect of *labour force participation* has been theorised along similar lines. Men's family responsibilities have been centred around being a good provider, thereby reinforcing their labour market role. Full-time employment and an established position in the labour force is therefore usually regarded as a precondition for successful family life for men. Regarding women, one would expect that working women form partnerships at a lower rate, as their respective gains appear smaller and opportunity costs higher compared to non-working counterparts. Previous research, however, has garnered little support to such hypothesis. In many countries, such as Australia, Hungary, the Netherlands, Sweden, Norway and the United States, women's employment has been positively or neutrally associated with union formation/marriage [Blom 1994; Manting 1994; Oppenheimer and Lew 1995; Olah and Fratzak 2003; Santow and Bracher 1994; Bracher and Santow 1998]. With respect to unemployment, the effects seem to be more gender-specific and more diverse. A comparative study by Corijn and Klijzing (2001) revealed that male

unemployment generally leads to a postponement of union formation whereas diverse effects were found among women. In East Germany, Spain and Norway female unemployment led to a postponement of union formation. In Flanders and Italy, on the other hand, it speeded up marriage, although the effect changed across age.

The variation in the effects of education as well as labour force participation revealed by comparative studies has been linked to the specificity of gender and family systems prevailing in different countries [e.g. Blossfeld 1995; Blossfeld et al 2005; Corijn and Klijzing 2001; Ono 2003]. In particular, it has been suggested that the impact of education and labour force participation will be stronger and the gender specificity more pronounced in more 'conventional' or 'traditional' gender and family systems. Liefbroer and Corijn (1999) point out that the impact of educational attainment and labour force participation depends on the degree of (in)compatibility of labour market participation and family formation in the societies under consideration, which can be discerned at a cultural and structural level. The former relates to values, norms and ideologies concerning the roles of women and men in society and in the family, the latter to the existing opportunities and constraints on these roles. The more gender equality is a dominant cultural value within society, the weaker and less polarised the effect of educational attainment and labour market participation will be between women and men.

In the present study, the aim of the multivariate analysis is to ascertain whether Estonia, Latvia and Lithuania have featured similar or dissimilar patterns with respect to the association between educational attainment and labour force participation. And if dissimilarities are discerned, the hypothesised link with the gender system will be explored.

As mentioned above, the independent variables of main interest include education and labour force participation. Educational enrolment and labour force participation are operationalised by means of a combined time-varying covariate with three levels, which refers to the main activity status of the respondent: enrolled in education, employed and non-employed. A further distinction between full- and part-time employment was not attempted because of very low prevalence of part-time employment in the Baltic countries. For a similar pragmatic consideration, a more refined classification of the non-employed was not attempted as it would have ended up with too small numbers. In the late state socialist setting, unemployment was virtually non-existent and a shortage of labour prevailed. Moreover, to be out of the labour force, a person required an officially acceptable excuse such as study, illness or poor health, conscription into the army, very young child etc.

Educational attainment refers to the highest level of education the respondents have successfully completed. Apart from school enrolment, educational attainment has been operationalised as a time-fixed covariate. The indicator of educational attainment distinguishes between three levels: low (less than upper secondary), medium (upper secondary) and high (tertiary) educational attainment. An alternative option was the construction of a time-varying covariate. This would have been recommendable for capturing the person's current earnings capacity. However, educational attainment also relates to intellectual competence and certain preferences, which cannot be expected to change from one month to the next when the diploma/degree is received [Liefbroer 1991]. In the late state socialist setting, where returns from education in terms of wages were administratively smoothed, non-economic aspects of education were perhaps even more important than in market economies.

The control variables included a set of socio-economic and demographic characteristics, which are known from previous research to differentiate the tempo of

union formation. These characteristics include birth cohort, past life course experiences (growing up in a single parent family, number of siblings, type of settlement in childhood, departure from parental home) and current life course experiences besides education and labour force participation (having a pre-union pregnancy/birth). Among these variables, departure from parental home and having a pre-union pregnancy/birth were operationalised as time-varying covariates, while the rest of controls represent fixed variables.

The models also include religiosity which has historically made a noticeable distinction among the Baltic countries. Studies from many countries [Corijn and Klijzing 2001; Manting 1994; Nazio and Blossfeld 2003; Rao 1990] have pointed at the importance of religious affiliation for family behaviour, and although the effect of religion on the timing of union formation appears less evident, it was considered essential to incorporate the corresponding dimension also in the analysis¹¹. In terms of operationalisation religiosity refers to self-definition, persons who described themselves as religious are included. Given the aims of the study, it would also have been interesting to include some attitudinal characteristics relevant to the division of gender roles but the data did not support comparable information for all the countries.

Appendix 1 provides information on the number of observations and the distribution of covariates (exposure time) included in the models in each country, separately for men and women.

5.2.2. Modelling results

The modelling strategy applied in the study is straightforward. Women and men were analysed separately for each country in order to detect possible differences in the effects of individuals' characteristics on the rate of first union formation by gender and country¹². For each unit of analysis, four sets of models were fitted. The purpose of the first set was to produce non-adjusted estimates for each of the covariates by including them one at a time in addition to age (duration). In the second step, the model included only individual characteristics such as cohort, family of origin, the number of siblings, settlement type and religiosity. Next we included the rest of control variables, and in the final step, the covariates of main interest in this article (educational attainment and activity status) were added. Such stepwise inclusion of covariates reflects the sequence in which they appear in the life course of the respondents, which in turn determines their causal proximity to the life situation of the respondent as observed in the survey.

The model fitting was done by using the SPSS software package. The results, produced as partial likelihood estimates of the effect parameters in the model, are presented in the form of relative risks. Estimates from the final sets of models, together with the applied coding schemes of covariates, the choice of reference categories and statistical significance levels, are presented in the tables that follow. Table 1 summarises the results for the variables of main interest.

Consistent with the expectations and findings observed commonly in other settings, enrolment in education has a negative effect on the start of the family formation process. Being currently at school appears indeed incompatible with the role of a conjugal partner

¹¹ Earlier analyses based on the FFS data have revealed the effects of religion also in Estonia, particularly with respect to the type of first union [Katus, Puur, Põldma 2002].

¹² Multivariate analysis leaves aside older generations of the Estonian FFS and focuses on the birth cohorts starting from 1944 for all three countries.

and clearly postpones the entry into first union. The direction of the gradient is the same and the effects are statistically significant. With the exception of men in Estonia, the risk of union formation is almost halved in all three countries. The comparison of adjusted and non-adjusted estimates reveals that the influence of educational enrolment is relatively independent — the control for past and current experiences life course other brings about only minor change in relative risks.

Table 1. RELATIVE RISK OF STARTING A FIRST UNION FOR EDUCATION AND ACTIVITY STATUS

	Estonia		Latvia		Lithuania	
	Men	Women	Men	Women	Men	Women
Non-adjusted estimates						
Educational attainment						
Low	0.80***	1.27***	1.10	1.30**	0.63***	1.08
Medium ^a	1.00	1.00	1.00	1.00	1.00	1.00
High	0.92	0.61***	0.82*	0.64***	0.83***	0.54***
Activity status						
Enrolled in education	0.66***	0.48***	0.58***	0.44***	0.55***	0.41***
Non-employed	0.42***	1.14	0.66***	1.31***	0.69***	1.31***
Employed ^a	1.00	1.00	1.00	1.00	1.00	1.00
Adjusted, final model						
Educational attainment						
Low	0.94	1.14	1.24*	1.03	0.72**	1.14
Medium ^a	1.00	1.00	1.00	1.00	1.00	1.00
High	1.01	0.86**	1.03	0.96	1.02	0.77***
Activity status						
Enrolled in education	0.76**	0.57***	0.59***	0.56***	0.55***	0.56***
Non-employed ^a	0.50***	0.87	0.68***	1.09	0.71***	1.35***
Employed	1.00	1.00	1.00	1.00	1.00	1.00
Number of events	944	1705	670	1219	1186	1919
-2 log likelihood	11714.7	23018.6	7767.2	15653.6	15054.8	26480.9

*** p < 0.01, ** p < 0.05, * p < 0.1; ^a Reference category

The gender difference in the effects of educational enrolment appears small. In Latvia and Lithuania, the model estimates are basically similar for men and women. Only in case of Estonia, the relative risks indicate somewhat lesser incompatibility between school enrolment and union formation among men compared to women. The prevailing similarity of the results suggests that the effect of educational enrolment is likely to be driven by constraints that operate in more or less the same way in all three countries with no significant discrimination between men and women.

Compared to school enrolment, the results for educational attainment are generally less pronounced but at the same time they reveal greater diversity across gender as well as countries. Starting from the bottom of educational hierarchy, in all countries women with less than secondary education feature a slightly higher propensity for union formation compared to the reference group who has completed upper secondary education. Once the school enrolment is taken into consideration, the relative risk ranges between 3 per cent in Latvia and 14 per cent in Lithuania (Estonia stands very close to the latter level). Due to the relatively small number of the group in the cohorts born after the Second World War,

in none of the countries the corresponding difference reaches the level of statistical significance¹³.

Among men with low educational attainment, the effect tends to go in the opposite direction, to a minor extent in Estonia and noticeably in Lithuania. The level of education below upper secondary is associated with a reduced probability of starting a partnership, in Lithuania the corresponding relative risk is nearly 30 per cent lower compared to the reference group, a difference that is statistically significant. From the viewpoint of partnership formation, low educational attainment evidently translates into reduced attractiveness and constitutes a disadvantage for males in the Lithuanian marriage market. Against that background, Latvian men seem to be outliers with an elevated risk of union formation among the group of the less educated.

With respect to higher educational attainment, the more or less pronounced negative effect observed in non-adjusted estimates disappeared among men in all three countries once the duration of education (enrolment) is controlled for. To this end it is interesting to note that estimates for relative risks were closely similar and none of the countries developed a positive gradient. This implies that among men, net of other factors, higher educational attainment is neutral with respect to union formation in the Baltics. Apart from men, a negative effect of higher education still prevailed among women. At the same time, however, the impact of advanced educational attainments was not similar across countries. In Estonia and particularly in Latvia, completion of tertiary education was associated with relatively moderate reduction in the rate of partnership formation whereas in Lithuania the effect appears more pronounced (relative risk nearly 25 per cent lower compared to the reference group).

Regarding labour force participation, the effect of non-employment for reasons other than school enrolment can be analysed. Table 2 reveals that among men, being out of employment features a consistently negative association with the propensity for partnership formation across the countries. In Latvia and Lithuania non-employment implies around 30 per cent reduction in the rate of entry into first union. In the case of Estonian men, the reduction of relative risk is even greater but the corresponding difference with their Latvian and Lithuanian counterparts may well represent a statistical artifact resulting from data collection rather than a true behavioural distinction. Non-employment for reasons other than school enrolment was relatively infrequent in the state socialist setting, and for young men the most common reason was military service. The experience from the FFS data collection exercise revealed that unless the interviewers were given careful instruction, military service could easily get underreported. Compared to other statuses, coded as non-employment in the survey, conscription in the armed forces is highly incompatible with the start of conjugal union and even moderate underreporting may influence the estimated model parameters. In the Estonian FFS, special attention was paid to the recording of compulsory military service as a separate episode in men's activity biography. Compared to Latvia and Lithuania, this may have resulted in a more complete reporting of military service in the Estonian survey, and consequently, in a stronger effect of the corresponding covariate. Such a possibility is suggested by the distribution of exposure time in Appendix 1 but unfortunately is not possible to test this hypothesis directly as the FFS standard recode file does not have a separate code for compulsory military service.

¹³ It is interesting to note that while the control for school enrolment leads to significant reduction of relative risks for low-educated women in Estonia and Latvia, the opposite appears true for Lithuania.

Among women, the geographical pattern appears noticeably different. In Estonia, after the control for other factors, non-employment leads to a postponement of union formation, although compared to men the effect is less pronounced and does not account for statistical significance. In contrast, in Latvia and particularly in Lithuania female non-employment seems to speed up the union formation. In the case of Lithuania, the propensity for starting a union among non-employed women exceeds that in the reference group by more than a third and reaches the level of statistical significance.

To sum up the findings with respect to education and labour force participation, there were only limited differences in the effects of educational enrolment. In all three countries, school attendance brings about the reduction in the rate of union formation among both women and men. Unlike enrolment, educational attainment displays a variation along both dimensions of interest. In general, low level of education tends to be associated with a slightly higher rate of union formation among women while for men an opposite effect prevails (with the exception of Latvian men). In contrast, high level of education among women seems to delay entry into partnership whereas advanced male education is neutral to union formation. Across countries, the polarisation of gender-specific effects of educational attainment appears strongest in Lithuania. The same is true about the effect of female (non)employment that features an interesting transformation in the gradients of relative risk from north to south, achieving the level of statistical significance among Lithuanian women.

Other factors included in the model are beyond the main interest of our analysis and the discussion of corresponding findings is skipped in this article. Model estimates for control factors are presented in the appendix table.

6. Summary and discussion of the findings

This article addressed patterns of first union formation in the Baltic countries among the generations who started their family life prevalingly in the 1970s and 1980s, with the aim to place them in the context of prevailing gender relations.

The analyses of cohort trends revealed noticeable change as well as diversity in the patterns of union formation between Estonia, Latvia and Lithuania. In the FFS cohort range, the timing of a first conjugal union was dominated by a more or less extensive shift towards a younger age at the start of union in all three countries. In a broader view, this juvenation of union formation constitutes part of a long-term trend towards younger and more universal marriage that had started several decades earlier and ended the reign of the West European marriage pattern in the region after WWII.

The change in the timing of unions was paralleled by the transformation in the mode of partnership formation, however, the shift from direct marriage to cohabitation has been strongly varying between countries. The results indicate that in Lithuania direct marriage maintained its position as a prevailing mode of union formation, with only minor modification of the pattern towards younger generations. In contrast, in Estonia, and to a somewhat lesser extent in Latvia, the shift from direct marriage to cohabitation took start well before the fall of the previous regime and onset of societal transition. In the case of Estonia, pre-marital cohabitation became the prevailing route to family building already in the generations born in late 1940s-early 1950s. The differential spread of consensual unions was also reflected in the prevalence on non-marital childbearing, and also in a somewhat later timing of union formation compared to Estonia and Latvia.

As regards Estonia, the dynamics in the cumulative prevalence of cohabitation at entry into first unions resembles that of Sweden, the trendsetter of modern family patterns [Hoem and Rennermalm 1985; Bernhardt and Hoem 1986]. What appeared markedly different compared to the latter, however, was the tempo at which unions were converted into marriage. Unlike Scandinavia, cohabitation in the Baltic countries until the 1990s remained a relatively short stage at the beginning of partnership career rather than a long-lasting status. Searching for an explanation for this feature, one can refer to the characteristics of the prevailing societal regime that restrained the ultimate disconnection of partnership formation from marriage, also encouraging a relatively early family formation.

In this context, several authors have called attention to the mechanism of housing allocation [e.g. Ni Brolchain 1993; Nazio and Blossfeld 2003; Speder 2005]. In the state socialist system, the housing market did not exist and the dwellings were distributed according to certain administrative rules. According to these rules, consensual unions were disregarded and to become eligible, a couple was expected to be in a registered marriage, which indeed encouraged young people to register their partnerships. Instrumentally, a limited supply of efficient contraceptives, imposed by the prevailing health care policies also acted along the same direction [Avdeev 1994; David 1999]. With respect to Estonia, the plausible impact of housing allocation is indirectly revealed by a more rapid diffusion of non-marital cohabitation in rural areas where the role of the state as a provider of housing was noticeably lower [Katus, Puur, and Sakkeus 2005].

A central analytical focus in this article concerned the differences in union formation, related to education and labour force participation. Variation associated with these characteristics among men and women provides an indication of the compatibility between family life on the one hand, and education and employment on the other. Generally, the positive effects, revealed by multivariate event-history models, point to greater compatibility between the demands of these life domains, competing for the time and energy of individuals, while the negative effects signal difficulties in reconciling them. A comparison of the corresponding patterns between countries sheds light on the characteristics gender systems that facilitate or complicate the reconciliation. Based on the evidence from previous studies of family formation, we expected a greater incompatibility between life domains to be characteristic of more traditional gender systems, compared to more emancipatory systems [Blossfeld 1995; Corijn and Klijzing 2001].

Although the effects of education and labour force participation were not particularly strong, the results indicate noticeable differences, consistent with the hypothesis of contextual contingency referred above. Among the three countries included in the study, the polarisation of the effects of educational attainment and labour force participation between men and women appears the most pronounced in Lithuania. Among men a statistically significant reduction in the rate of union formation was associated with low educational attainment whereas among women, on the contrary, a similar effect relates to high level of education. In the case of Lithuania, the polarised gender-specific effect was found also for labour force participation — being out of employment significantly decreased the risk of starting a union for men, while among women, non-employment was related to higher chances of partnership formation. The direction of the observed effects obviously mirrors the traditional division of roles, which regards men as principal income providers and women as carers for household and children.

In Estonia and Latvia, the evidence concerning the polarisation of gender roles, if observed, proved weaker and generally below statistical significance. In comparative perspective, particularly clear cross-country differences were exemplified by female

(non)employment. The gradient of the corresponding effect transformed from slightly negative in Estonia, where it followed the same direction among men and women, to slightly positive and having opposite direction compared to men in Latvia, and further to positive and statistically significant in Lithuania. With respect to educational attainment, the difference between Estonia and Latvia appears less systematic to reveal a consistent geographic gradient across the entire region.

Why then have these dissimilarities between countries arisen and how they relate to the functioning of the gender system? With a certain degree of simplification, the arguments used to explain the trends and differentials in the demographic behaviour can be split into two major streams, according to whether they insist on the role of structure or on the role of culture [Billari 2006; Mellens 1999; Pinelli, Hoffmann-Nowotny and Fux 2001]. Structural factors relate to the functioning of various societal institutions, policies, instruments of welfare state etc., that shape the opportunities and constraints of individuals. Cultural factors, on the other hand, relate to broad ideologies, values, norms and preferences, which are used to define more and less appropriate ways of living and guide the choice between alternative options.

As mentioned above, structural factors evidently contributed to the rapid conversion of consensual unions into marriage in the Baltic countries before the 1990s compared to Scandinavia, but they can hardly account for the differences within the region during the state socialist regime — at the end of WWII Estonia, Latvia and Lithuania became subjected to far-reaching centralisation, which resulted in closely similar profiles with respect to institutional framework. As shown earlier in this article, the high degree of uniformity also extended to the societal gender structure, and in that respect all three countries shared a regime that encouraged women's and men's equal access to education and high labour force participation.

As regards cultural factors, it proves difficult to obtain internationally comparable data on values and attitudes related to gender roles on the Baltic populations that would refer to the period until the 1990s. Still, an indirect evidence can be drawn from studies which are more recent but cover a large part of the FFS cohorts. A very useful source in this respect is the second round of the Population Policy Acceptance Survey, which was conducted in fifteen European countries in 2000-2003¹⁴.

This survey supports the comparison of Estonians and Lithuanians on a wide range of population-related values, beliefs and attitudes, including gender roles. The analyses conducted in the framework of the PPA study have indicated that, on average, the Lithuanians tend to hold more conservative views on the family and the division of gender roles. As concluded by Lithuanian researchers, traditional values and norms concerning the roles of men and women in the family are only beginning to lose their strength in the country [Stankuniene et al 2003]. In a comparative perspective, this judgement has been corroborated by the fact that among the fifteen nations covered by the study, Lithuanians expressed the lowest preference for the currently prevailing dual-earner model and strongest support to the male breadwinner model as an ideal for their family. Compared to Estonia, the classical statements 'a pre-school child is likely to suffer when mother works' and 'family life suffers when woman has a full-time job', scored a clearly higher agreement in Lithuania, with 19 and 23 percentage points respectively. A comprehensive account of

¹⁴ Since the beginning of 1990s, the Baltic countries have also participated in the European Value Surveys program. Compared to PPA, the major drawback of EVS has been its small national samples which make the results less reliable. Among others, this was the reason why Lesthaeghe and Surkyn combined the Baltic countries in their study of values and new family forms in Central and Eastern Europe (2002).

the survey results is available from a recent monograph, edited by Hoehn, Avramov and Kotowska (2007).

Latvia did not participate in the PPA programme but a comparative analysis by Mellens (1999) on the socio-economic and cultural correlates of population development places Latvia rather close to Estonia along the cultural dimension, which, according to the applied conceptualisation, also included gender equity. In the light of the theoretical framework introduced by McDonald (2000; 2002), the differences in gender relations observed between the Baltic countries primarily relate to the family level. As mentioned above, in respect to societal level all three countries feature a closely similar profile, with a relatively high degree of gender equity in several domains. According to recent EU labour market statistics, for example, the Baltic countries together with Sweden and Finland showed the smallest gender difference in employment rate for the prime working age population [EC 2006].

An additional evidence in support of the varying consistency between gender equity on societal and family level can be drawn from the dynamics of fertility trends in the region over the past decade. Following the sharp decline of fertility from close-to-replacement level in the 1980s, fertility levels fell to very low levels, with TFR reaching 1.2-1.3 in all three countries. After reaching the lowest point, fertility has started to show the signs of recuperation all over the Baltic region but the strength of this new development has been noticeably different [Council of Europe 2006]. In Estonia, the fertility level has increased by 15-20 per cent compared to its lowest point whereas in Lithuania the increase of fertility appears only marginal. It is also interesting to note that among the new member states of EU from Central and Eastern Europe, Estonia ranks highest in terms of fertility recuperation which can be hardly explained, for instance, with economic arguments. In Latvia, the recuperation is also rather small but it seems likely that high share of foreign-origin population in Latvia may affect the statistics reported for the total population.¹⁵ But at the same time, the cross-country difference in recent fertility developments basically matches the pattern that, with references to other settings, has been attributed to the inconsistency between gender equity in individual- and family-oriented institutions [Chesnais 1996; McDonald 2000].

Turning back to the Baltic region, an essential cultural feature that makes a distinction between Estonia and most of Latvia on the one hand, and Lithuania on the other hand, is religion. As noted earlier, the boundary between the Catholic and Protestant (Lutheran) domains emerged in the region several centuries ago but has survived until modern times. In Estonia and Latvia the secularisation started early while in Lithuania religion has maintained its position much longer [Plaat 2003; Vardys 1990]. For example, the analysis of the Baltic values, based on the World Value Surveys 1995-98 round, shows that along the scale which contrasts the traditional religious values and secularism, Estonia and Latvia ranked remarkably high in comparative perspective [Taagepera 2002]. Against the background of Northern and Western Europe, they reached scores that are slightly below Sweden and West Germany, but comparable with Denmark and Norway. In the context of former state socialism, Estonia and Latvia featured a similar score with the Czech Republic, with only the East Germany positioned somewhat higher. All other countries of Europe, including Lithuania, ranked noticeably lower on the traditional vs secular-rational authority scale.

¹⁵ In Estonia, fertility level among the foreign-origin population have been systematically lower compared to the native population over recent decades [Katus, Puur and Sakkeus 2002]. Given the close similarity of demographic development in the two countries, we can assume the same situation to hold also for Latvia.

There are reasons to believe that this long-standing cultural difference may relate to the described dissimilarities between the Baltic countries in the gender context as well as in family formation. Pertaining to the value change in the global scene, Inglehart and Pippa analysed the association between religion, secularisation and gender equity (2003). Their results demonstrated that the type of religion matters for beliefs about gender equity far more than the strength of religiosity, with the gender equity being generally more advanced in Protestant than in Catholic settings. Among demographers, this divide between denominations, and the role of religiosity in general, is well known as a correlate of fundamental behavioral changes — more secularised populations are likely to shift to new behaviours earlier than their counterparts with stronger adherence to religion. This has been found true for distant as well as more recent transformations of the demographic patterns, including the spread of non-marital cohabitation and disconnection between marriage and childbearing [e.g. Lesthaeghe 1995; Kiernan 2002].

The temporal sequence of demographic development in the Baltic countries seems to fit well the idea of the importance of underlying cultural differences. This holds for the transformation of nuptiality patterns since the 1960s, discussed in the present article, but it is equally applicable to the transition to modern regime of generation replacement a century earlier [Katus 1994; Plakans 1984]. In both cases, the new behavioural patterns emerged earlier in the areas of Estonia and Latvia, followed by Lithuania with a certain time lag. In the given framework, the intermediate position of Latvia with respect to non-marital cohabitation could also be explained by the presence of both Lutheran and Catholic traditions in the modern territory of the country. The role of cultural factors would also help to understand the close synchronism observed in the spread of new family forms since 1960s on the western and eastern shores of the Baltic Sea, notwithstanding the diversity of societal regime and institutional frameworks in respective countries.

To conclude, the evidence presented in this article provides support for the connection between family formation and the gender system in the Baltic countries, but at the same time it is important to be aware that the observed link is not necessarily a causal one. As formulated by Lesthaeghe (1983; 1995), these and several other developments can be related to each other as elements of a broader emancipatory process. In the course of this process, the traditional regulatory mechanisms, upheld by religious, communal and family authority, give way to individual freedom of choice and the corresponding exchange patterns. The long-term nature of this process evidently generates continuity or path dependence that explains recurrence of similar sequences of change between the countries in the region.

A final note is that the extensive demographic and societal transformation that has occurred in Estonia, Latvia and Lithuania during the past decade and a half surely calls for the issue to be revisited once the new comparative life history data become available. These data will reveal to what extent the similarities and dissimilarities observed in this article have persisted into the 21st century, through the turbulence of regime change in the region.

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Appendix 1. DISTRIBUTION OF RESPONDENTS (EXPOSURE TIME)
AT THE LEVELS OF COVARIATES

	Estonia		Latvia		Lithuania	
	Men	Women	Men	Women	Men	Women
Educational attainment						
Low	24.7	9.8	14.1	6.2	8.0	4.8
Medium	56.7	65.7	67.2	64.8	65.3	60.4
High	18.6	24.5	18.7	29.0	26.7	34.8
Activity status^a						
Enrolled in education	33.4	51.0	35.3	48.0	34.5	51.6
Non-employed	22.0	7.6	14.2	6.3	17.5	8.2
Employed	44.6	41.4	50.5	45.7	48.0	40.2
Birth cohort						
1944-1948	17.7	19.8	9.5	9.2	10.9	8.8
1949-1953	18.2	16.5	15.9	16.6	14.8	15.6
1954-1958	16.0	18.1	18.4	18.8	18.0	17.0
1959-1963	15.3	16.4	17.8	21.9	18.5	19.2
1964-1968	17.0	16.9	17.8	13	18.8	16.6
1969-1973	15.8	12.3	15.0	14.9	13.1	14.5
1974-1977			5.6	5.6	5.9	8.3
Region of origin						
Urban	52.0	54.0	54.6	54.1	55.5	55.7
Rural	48.0	46.0	45.4	45.9	44.5	44.3
Family of origin						
Two-parent family	79.0	80.9	82.6	82.4	84.8	85.7
Single-parent family	21.0	19.1	17.4	17.6	15.2	14.3
Number of siblings						
None	16.4	13.5	17.0	20.4	12.3	12.2
1 or 2	42.9	40.5	45.0	42.2	39.7	38.8
3 or more	40.7	46.0	38.0	37.4	48.0	49.0
Religious						
Yes ^b	5.1	6.8	12.8	20.3	49.0	63.1
No	94.9	93.2	87.2	79.7	51.0	36.9
Left parental home^a						
Yes ^c	38.6	21.5	12.8	19.5	35.4	30.3
No	61.4	78.5	87.2	80.5	64.6	69.7
Pre-union pregnancy/child^a						
None	97.8	94.8	97.9	94.8	97.6	96.3
Pregnancy	1.1	1.7	1.5	2.5	1.4	1.8
Child under 1 year	0.3	0.9	0.3	0.9	0.4	0.6
Child 1-2 years	0.4	1.2	0.2	0.9	0.3	0.6
Child 3+ years	0.4	1.4	0.1	0.9	0.3	0.7

^a Time-varying covariates; ^b Based on V916 (SRF); ^c Lived independently for at least 6 months

Appendix 2. RELATIVE RISKS OF STARTING FIRST UNION
FOR CONTROL CHARACTERISTICS
final model

	Estonia		Latvia		Lithuania	
	Men	Women	Men	Women	Men	Women
Birth cohort						
1944-1948 ^a	1.00	1.00	1.00	1.00	1.00	1.00
1949-1953	1.06	1.19**	0.93	0.95	1.02	0.85*
1954-1958	1.36***	1.13	1.21	1.01	1.08	0.99
1959-1963	1.45***	1.38***	1.24	1.01	1.02	0.93
1964-1968	1.34**	1.35***	1.39**	1.11	1.12	0.97
1969-1973	1.21	1.78***	1.24	1.00	1.54***	1.15
1974-1977	-	-	0.77	1.22	1.56*	1.39**
Region of origin						
Urban ^a	1.00	1.00	1.00	1.00	1.00	1.00
Rural	0.90	0.92	0.84**	0.95	0.97	0.87***
Family of origin						
Two-parent family ^a	1.00	1.00	1.00	1.00	1.00	1.00
Single-parent family	1.08	1.11*	1.30***	1.02	1.04	1.06
Number of siblings						
None	0.79**	1.02	1.11	0.89	1.20*	0.96
1 or 2 ^a	1.00	1.00	1.00	1.00	1.00	1.00
3 or more	1.12	1.03	0.90	0.88*	1.12*	1.05
Religious						
Yes	0.84	1.02	1.27**	0.92	1.12*	0.93
No ^a	1.00	1.00	1.00	1.00	1.00	1.00
Left parental home						
Yes	1.13	0.89*	1.32***	1.21***	1.19***	1.17***
No ^a	1.00	1.00	1.00	1.00	1.00	1.00
Pre-union pregnancy/child						
None ^a	1.00	1.00	1.00	1.00	1.00	1.00
Pregnancy	15.51***	11.18**	16.62***	13.41***	15.40***	16.64***
Child under 1 year	5.81***	1.75**	11.79***	3.66***	7.81***	5.22***
Child 1-2 years	2.45***	1.16	5.96***	2.10***	4.08***	1.68**
Child 3+ years	1.08	0.88	1.81	0.90	2.36***	1.25

*** p < 0.01, ** p < 0.05, * p < 0.1; ^a Reference category