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# Fertility in Central and Eastern Europe after 1989: Collapse and Gradual Recovery

Tomáš Sobotka\*

**Abstract:** »Fertilität in Mittel- und Osteuropa nach 1989: Kollaps und graduelle Erholung«. This contribution looks at the recent transformations of reproductive and family behaviour in Central and Eastern Europe and their interpretations. First I look at the development of family trends from a long-term perspective, focusing especially on the period of state socialism between the late 1940s and the late 1980s. A subsequent analysis of fertility shifts after 1989 shows that despite similar trends, such as plummeting fertility rates and a postponement of childbearing in the 1990s, considerable diversity in family and fertility patterns has emerged during the 1990s and 2000s. This diversity is manifested by strong contrasts between countries in the spread of cohabitation, non-marital fertility, timing of births and marriages, share of one-child families, as well as abortion rates. Similarly, reproductive behaviour more differentiated by social status. Among the few aspects widely shared across countries is a persistent high valuation of parenthood and family life.

To discuss these trends, I outline the contours of societal trends after 1989 and highlight selected theories and explanations of rapid fertility changes. Without being mutually exclusive, four perspectives are particularly useful: the economic crisis/ uncertainty view, the 'second demographic transition', the 'postponement transition' and the 'contraceptive revolution'. The 'postponement transition', manifested by a shift of childbearing to higher reproductive ages, arguably constitutes the most important factors behind fertility declines in the 1990s, as period fertility was strongly negatively affected by such shifts in fertility timing (this influence is often labelled as a 'tempo effect'). Similarly, a gradual fertility increase observed in most countries of the region after 2000, was in part stimulated by a declining 'tempo effect.' Public discourses, however, often ignore such influences and tend to concentrate on the period fertility declines and population declines that took place in most of the region.

**Keywords:** fertility, family, Central Europe, Eastern Europe, childlessness, low fertility, reproduction, abortion, post-communist transformation.

## 1. Introduction

When the state socialist system collapsed in Central and Eastern Europe in 1989-91, the seeming stability and stagnation gave way to unprecedented social and economic changes. Multiple factors started affecting and reshaping peo-

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ples' life courses: new political and social freedoms, harsh realities of the transition to market economy, the emerging poverty, income inequalities and unemployment; new consumer choices and opportunities as well as constant changes in social and welfare policies.

More longstanding changes followed in all domains of life, including rapid expansions of university education in most countries. Life courses became increasingly diversified and social stratification has increased sharply, with the new layer of rich people (admittedly, a very small category) and the very poor. Newly emerging lifestyles were not easily compatible with children and family life, therefore, more and more women and men postponed marriage and child-bearing to higher ages. Since the late 1990s the social and economic situation started stabilizing in much of the region and the era of largest turbulences was over. Economy started picking up and many countries saw a first spell of relative prosperity and rapidly improving living standards. At the same time, the period fertility rates, which reached extreme low levels of 1.1-1.4 around the year 2000 when measured with a conventional total fertility rate (TFR), have subsequently started a gradual recovery in most countries. Massive declines in period fertility rates to very low levels and various expectations about their future negative consequences lie at the heart of most debates on contemporary fertility in the region. In contrast, the intensive shift of fertility and partnership formation towards higher ages, which constitute one of the key explanations of fertility and marriage declines in the 1990s, often remained unnoticed in public debates and media commentaries.

There are many similarities in economic, social, and family trends in Central and Eastern Europe after 1989. However, below the surface, important differences can be found. In terms of economic prosperity, social stability and the overall success of economic transformation, the region has become extremely differentiated. A few countries, especially in post-Soviet Eastern Europe and in the Balkans experienced economic collapse which depressed their GDP levels by one half or more; as of 2007 Macedonia, Moldova and Ukraine still had a lower per capita GDP than in 1989, before the onset of economic and social transformation (Unicef 2009). Many Central European countries, in contrast, saw a comparatively smooth economic transition. As of 2008, per capita Gross National Income (GNI) in purchasing power parity ranged from 3210 US Dollars in Moldova to 26910 US Dollars in Slovenia. Ukraine, after Russia the second most populous country in the region, had a lower GNI (7210 Dollars) than many 'developing' Asian and Latin American countries including Brazil and Iran (PRB 2009). Similarly, the pathway to social and income stratification differed widely between countries: a few countries like the Czech Republic, Slovakia and Slovenia, retained relatively small income differences (Gini coefficient of income distribution was around 0.24 in 2005-2007; Unicef 2009: Table 10.9), whereas the countries of the former Soviet Union and south-eastern Europe saw a massive rise in earnings and income inequalities (Heyns

2005). In an extreme case of Russia, the Gini coefficient of earning distribution almost doubled between 1989 (0.27) and 2001 (0.52), declining gradually thereafter, but still reaching 0.44 in 2007, close to most pronounced inequality patterns in Latin America (Unicef 2009: Table 10.8).

Outlining this huge economic and social differentiation across the region is important for understanding the recent fertility and family transformations there. This contribution aims to map, analyse and discuss major aspects of these transformations and interpret them in the context of social, economic and value changes before and after 1990. The text is structured as follows. Section 2 summarizes long-term changes in fertility and family in the region, looking at the rapid convergence towards relatively uniform reproductive behaviour after the World War II and a broader context that gave rise to the peculiar Eastern European pattern of reproduction. Subsequently, Section 3 looks in detail at the shifts and reversals in fertility and family trends after 1989. Section 4 then reviews theories and explanations that shed light on the ‘collapse’ in period fertility rates after 1989 and a later recovery, as well as on the massive change in family behaviour. I also outline major public and political discourses on fertility changes, both before and after the political regime change in 1989-91. This part also notes a subtle re-emergence of pronatalism. The fifth section concludes.

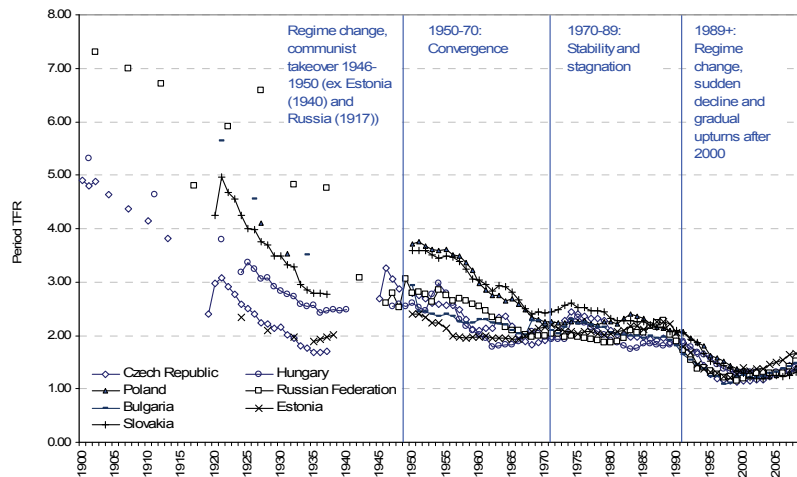
Geographically, this study covers European post-communist countries, including Russia, but it does not discuss the region of Central Asia and the Caucasus. It also does not cover Albania, Bosnia-Herzegovina, and Kosovo, which experienced violent conflicts and upheavals after 1990 and where demographic data remain of poor quality.

## 2. Fertility and Family Change before 1990: A Long View

Historically, the region which is now often labelled as *Central and Eastern Europe* (CEE) was demographically, culturally and economically extremely diverse, characterized by a number of cultural fault lines, including religious divisions between predominantly Catholic and Protestant areas as well as the Christian Orthodox countries (Davies 1996). The major demographic dividing line, the ‘Hajnal line’ (Hajnal 1965), coincided partly with the religious division, with all the Orthodox countries being on the side of an early and universal Eastern European marriage pattern. Some of the mostly Catholic regions, including Croatia, Hungary, Lithuania, Poland, and Slovakia, also belonged to the “early nuptiality” pattern or depicted a mixed pattern (e.g., Andorka 1978 for Hungary). Related to that, birth control and the massive fertility decline of the first demographic transition started sooner and more vigorously in the western, more industrialized and economically most developed parts of the CEE region, characterized previously by later childbearing – especially Eastern Germany, the Czech Republic (or the Czech Lands), Hungary, and also two of

the Baltic regions with strong Protestant tradition, Estonia and Latvia. In these areas, the fertility decline was well under way around 1900, while in the ‘late-comers’ to this process, such as Bulgaria, Romania, or Russia, the onset of the rapid fertility decline can be situated into the 1920s and 1930s.

Figure 1: Period Total Fertility Rate in Bulgaria, Czech Republic, Estonia, Hungary, Poland, Russia, and Slovakia, 1900-2009



Sources: Council of Europe 2006, Eurostat 2010, 2011, Festy 1979, League of Nations (1935-36 to 1942-44), Human Fertility Database 2010, and national statistical offices.

These differences in the onset of the demographic transition resulted in huge differences in regional fertility rates. In the 1930s, when many ‘Western countries’ reached historically low fertility rates, often deep below the population replacement threshold, the Czech Republic and Estonia briefly recorded period total fertility rates below 2 births per woman (Figure 1).<sup>1</sup> At the same time, Poland and Bulgaria retained fertility rate of 4-5 until the 1920s and the period

<sup>1</sup> The period total fertility rate (TFR) is a hypothetical indicator of fertility, representing the number of births per woman that would be reached if the age-specific fertility rates observed in a given period remained constant thereafter. This is a simplistic assumption which ignores other important demographic ‘determinants’ of fertility than age, such as the parity composition of the female population and duration since the previous birth. Because the assumption of constancy in the age-specific fertility is never met in practice, the period TFR is strongly affected by the changes in the timing of childbearing and should be interpreted with caution (see also Sobotka and Lutz 2009). Therefore, I complement the TFR measures with cohort fertility data, representing the real number of births per woman from a particular birth cohort and mostly avoid the ‘births per woman’ interpretation of the period TFR (see also Sobotka and Lutz 2009).

TFR in Russia was as high as 6.5 in 1925-29 (Vishnevski 2006). Subsequently, this vast heterogeneity declined as the lowest-fertility countries experienced an upturn in their fertility rates since the mid-1930s, while other countries saw their fertility rates declining rapidly. (e.g., Van Bavel 2010).

The horrors of the Second World War paved the way to the geopolitical division of Europe. Economically and culturally diverse countries of Central, South-eastern and Eastern Europe fell into the Soviet sphere of influence and became increasingly isolated from the rest of the continent. This division lasted for more than four decades, until 1989-91. A combination of uniform political and institutional framework adopted and enforced across the Soviet satellite countries, lacking democratic institutions and freedoms (including free media or religious and civic organizations) and a relative isolation in terms of travel, communication and cultural exchange increasingly led to an emergence of similar family and fertility patterns. Following the new division of Europe, historical boundary between the eastern- and western-European family patterns, identified by Hajnal, shifted further to the West.

## 2.1 A Convergence in Fertility Behaviour: 1945-1970

By the late 1940s, when the region fell under the sphere of the Soviet Union influence, and tightly controlled political system was established, fertility rates in the countries of Central and Eastern Europe had become more similar than during the previous decades. The period total fertility varied between 2.4 (East Germany and Estonia) and 3.7 (Poland) in 1950. Subsequently, this variation further decreased, and a gradual fertility decline lasting until the mid-1960s brought period fertility rates in most countries close to 2 births per woman and thus also to or slightly below population replacement level.<sup>2</sup> In contrast to the ‘Western countries’, Central and Eastern Europe did not experience baby boom and thus became a lowest-fertility region globally in the early 1960s, with the period TFR in Croatia, Estonia, Hungary, Latvia, Romania, Russia, and Ukraine falling at least briefly below 2 (Figure A1 in the Appendix). Hungary and Latvia – which was as the other two Baltic countries, Estonia and Lithuania, forcefully incorporated into the Soviet Union in 1940 – experienced a brief TFR decline below 1.8. Such unexpectedly low fertility levels raised concerns across the region and paved the way to the first wave of government pronatalist policies, spanning from new legislation on maternity leave and childcare up to abortion restrictions in some countries (Frejka 1983, David 1999).

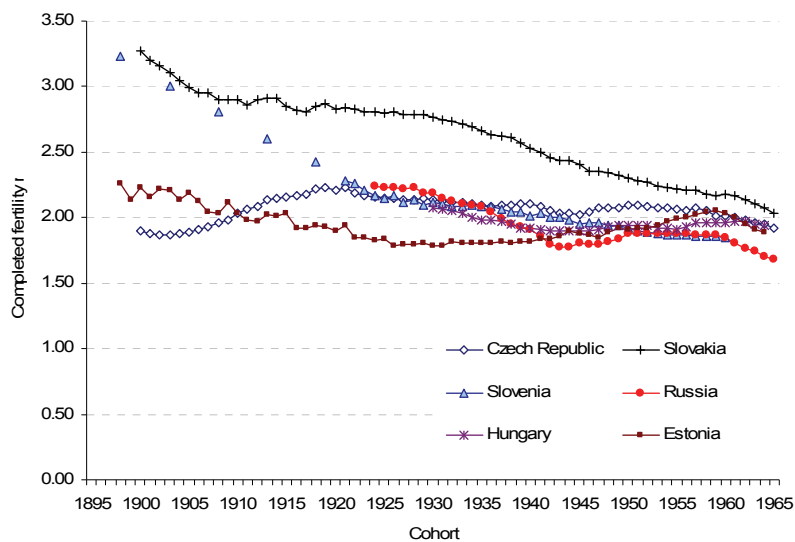
Studies of postwar fertility changes in Central and Eastern Europe often identify a number of interconnected trends that heralded a remarkable conver-

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<sup>2</sup> At present, replacement-level fertility rate corresponds to 2.07 births per woman in most developed countries, but it was slightly higher, at around 2.15 in the mid-1960s, due to higher infant and child mortality at that time (Council of Europe 2006).

gence in family behaviours in this initially demographically diverse region (see Sobotka 2002). Life courses of different social groups became more similar. Universal and early marriage and childbearing became cornerstones of the new 'Eastern European reproductive pattern', combined with a two-child family norm that was widely adopted by women and men with different educational backgrounds. Cohort fertility rates generally declined and converged towards two children per woman (Figure 2); among the women born in the 1950s most countries of the region had a completed fertility within a narrow range between 1.85 and 2.20. Age at marriage and first birth fell to a low level, with a majority of women marrying before age 22 and a mean age at first birth reaching 22-23 years. Following a longstanding decline in childlessness, observed among the women born since the early 20th century, having no children became increasingly unusual; women born in the 1930s-1950s reached low childlessness levels of 5%-10%, well below the levels of 10%-20% typically reached in other parts of Europe (Figure 3, Austria, the Netherlands and Spain shown for comparison).

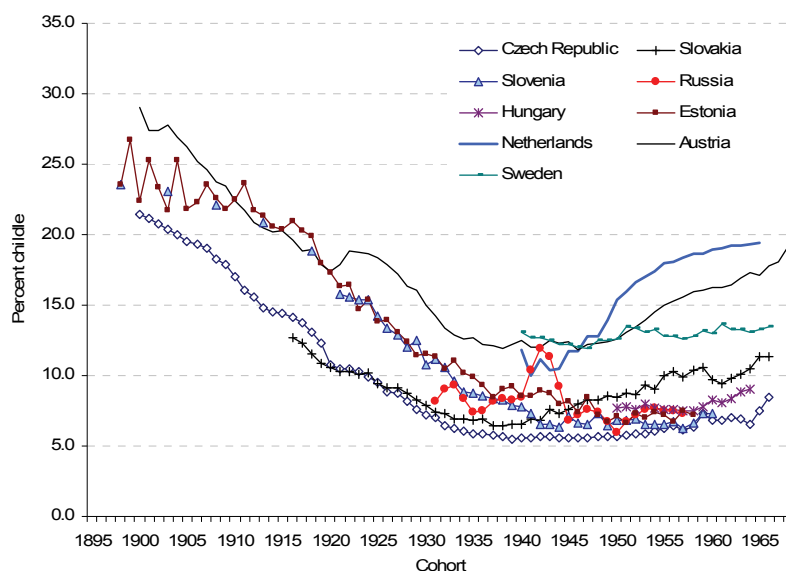
Figure 2: Completed Cohort Fertility Among the Women Born in 1898-1965; Five CEE Countries Compared With the Netherlands



Sources: Human Fertility Database 2010 (including country-specific input data from the population censuses) and own computations from the national data sources.

Notes: More details about data sources for individual countries available by the author upon request.

Figure 3: Permanent Childlessness (in %) Among the Women Born in 1898-1965; Nine European Countries



Sources: Human Fertility Database 2010 (including country-specific input data from the population censuses), and own computations from the national data sources.

Notes: More details about data sources for individual countries available by the author upon request.

In contrast, the share of women having two children increased continually, reaching in most countries 45%-55% in the 1950s cohorts (Appendix, Figure A2). A similar trend took place in the 'Western world' as well, but the two-child family orientation in the state-socialist countries was arguably stronger, manifested also by very low parity progression ratios to third birth that declined in some countries to 0.25 (e.g., East Germany, Hungary, Russia, Slovenia), below the levels of 0.3-0.4 found in most Western European countries<sup>3</sup> (Table A1 in the Appendix). A contrast between stable progression rate to the second birth and a long-term fall in the third birth rate is well illustrated on the example of Slovenia. Among the women born at the turn of the 20th century, these two indicators reached high levels around 0.8, signalling a limited use of birth control. Among the women born more than half a century later, in the 1950s, the second birth progression rate remained stable, hovering around 0.77, while

<sup>3</sup> Parity progression ratio reflects a share of women at a given parity who progress to the next birth. For instance, a third birth parity progression ratio of 0.25 implies that a quarter of women who have had two children eventually gave birth to a third child.

the third birth progression rate plummeted below 0.25 (Appendix, Figure A3). The strong two-child preference is also confirmed by the abortion statistics with the likelihood of an abortion particularly high among women with two children.<sup>4</sup>

This new and relatively uniform reproductive behaviour was closely linked to broader family patterns. On one hand universal education and employment, egalitarian ideology and the largely diminished importance of private property under state socialism made marriage widely accessible to most people at young ages. On the other hand, rapid secularization, women's labour participation (and thus also economic self-reliance) and new divorce legislation contributed to the rapid increase in divorce rates. Around the mid-1960s the total divorce rate (i.e., the period indicator of lifetime likelihood that a marriage will be dissolved) reached the level of 0.2 or higher in many Central and Eastern European countries, including the Czech Republic, Hungary, Latvia, Russia and Ukraine (Council of Europe 2006). With the exception of Denmark and Sweden, countries in other parts of Europe retained substantially lower divorce rates, often at 0.1 or lower, at that time. Low fertility required widespread use of birth limitation, which strongly relied on the use of abortion, legalized in most countries around 1957 (but already in 1920 in the Soviet Union). This 'abortion culture' (Stloukal 1999) was combined with a very low spread of the contraceptive pill (except in East Germany, Hungary and parts of the former Yugoslavia), many unwanted and 'mistimed' pregnancies and a high frequency of 'shotgun marriages' as premarital sex became more common and abortions were not widely accepted among childless women.

As some governments started worrying about declining birth rates access to abortion became more restricted through tougher access rules, abortion committees and other means, often generating short-lived baby booms (David 1999, Frejka 1983). The most extreme and notorious was the case of Romania (Baban 1999), where the availability of abortion became severely limited as of November 1, 1966, with a consequence of a pronounced upturn in fertility rates, a sharp fall in officially performed induced abortion, and a rapid rise in illegal (and risky) abortions (Figure 4).<sup>5</sup> Other social and family policies, some of which were also motivated by pronatalist agenda, were enacted since the

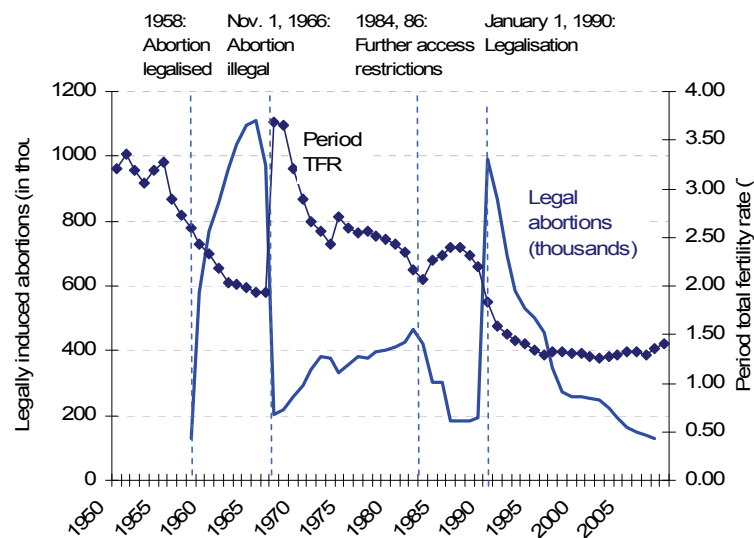
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<sup>4</sup> For instance, the odds ratio of terminating pregnancy with an abortion rather than giving a birth in the Czech Republic in 1990 was above 3.5 for women with two children, but only 0.5 for women with one child (own computations from official vital statistics). This huge disparity in abortion likelihood had prevailed for many decades.

<sup>5</sup> While the officially reported number of abortions in Romania fell from 1.1 million in 1965 to just over 200 thousand in 1967, the period total fertility rate almost doubled from 1.9 in 1966 to 3.7 in 1967, and, correspondingly, the number of live births jumped from 274 thousand to 528 thousand. Subsequently, periods of gradually falling fertility were interrupted by its short-lived increases driven by ever-stricter government regulation of induced abortion (Figure 4; see Baban 1999, Serbanescu et al. 1995).

1960s. A typical mixture included maternity leaves, birth allowances, an expansion of childcare institutions, and housing construction. It is impossible to outline all the relevant factors shaping life course decisions of men and women in Central and Eastern Europe in the 1950s and 1960s. Among the most relevant were industrialization and urbanization, education expansion, enforced secularization driven by the official anti-religious ideology, and a rapid rise in female labour participation. The latter factor was largely driven by a chronic shortage of workforce, typical of labour-intensive and inefficient state-socialist economy (Kornai 1986).

Figure 4: Legally Induced Abortions and Period Total Fertility Rate, Romania, 1950-2008



Sources: Council of Europe 2002, Baban 1999, Johnston's archive 2010, Eurostat 2010, and national data sources.

## 2.2 The 'Eastern European reproduction pattern': 1970-1989

Despite vast institutional differences, many family trends in the East and the West of Europe developed in a similar direction during the 1950s and the 1960s. Age at marriage and childbearing declined, marrying and having children were almost universally adhered to, and, related to that, rates of non-marital childbearing reached very low levels, usually well below those in the interwar period of the 1920s and 1930s. This changed after 1970, when new trends in family behaviour, later labeled by Ron Lesthaeghe and Dirk van de Kaa as a *second demographic transition* (Lesthaeghe 1995) started evolving in

northwestern part of Europe. Meanwhile the pattern of reproductive behaviour that had crystallised in Central and Eastern Europe during the two postwar decades was largely conserved over the 1970s and the 1980s. In contrast to other parts of the continent, these two decades brought a period of remarkable stability in family behaviour in CEE, leading to a general divergence in fertility and family trends between the two political blocs. The remarkable stability in family patterns in the East of Europe had an analogy in the ensuing stagnation of mortality that has left this part of Europe increasingly lagging behind Western Europe (Meslé 2004).

Table 1: Selected Period (1985) and Cohort (1960) Indicators of Family Behaviour in the Czech Republic, Hungary, Denmark, and the Netherlands

	Czech Republic	Hungary	The Netherlands	Denmark
<b>Period indicators (1985)</b>				
Period TFR	1.96	1.85	1.51	1.45
<i>Mean age at first birth</i>	22.4	22.8	26.6	25.6
<i>Mean age at first marriage</i>	21.6	21.5	24.4	26.2
<i>Total first marriage rate</i>	0.91	0.86	0.57	0.57
Total divorce rate	0.36	0.33	0.35	0.46
<i>Total induced abortion rate</i>	1.13	1.10	0.15 <sup>1</sup>	0.55 <sup>1</sup>
Share of non-marital births (%)	7.3	9.2	8.3	43.0
<b>Cohort indicators (cohort 1960)</b>				
Completed cohort fertility	2.02	1.96	1.83	1.89
<i>Childlessness (%)</i>	6.8	8.3	18.9	10.6
<i>First birth before age 20 (% of all women)</i>	25.7	23.3	7.0	6.7
Share with two children (%)	55.1	48.7	41.8	43.3
<i>Share of women cohabiting before marriage</i>	17	10	39 (70) <sup>2</sup>	
<i>Percent never married by age 47</i>	4.6	6.7	15.2	17.7

Sources: Council of Europe 2006, Eurostat 2010, 2011a, Human Fertility Database 2010, Kamarás 1999: 196 (Table 2), Liefbroer and Dykstra 2000, Spéder 2005, and national statistical offices.

Notes: Indicators where systematic differences between the East and the West of Europe were found are in italics.

Share of women cohabiting before marriage is based on the following data: Czech Republic: Generations and Gender Survey 2006, women born 1956-1960 and entering first union before age 25 (data computed by Anna Šťastná); Hungary: Generations and Gender Survey 2001-2001, cohabitation as 1st union before age 25 among women born in 1957-61 (Spéder 2005: 85, Figure 1); the Netherlands: share of first unions started as cohabitation among women born in 1951-1960 and 1961-70 (Liefbroer et al 2000: 234, Table A4.12).

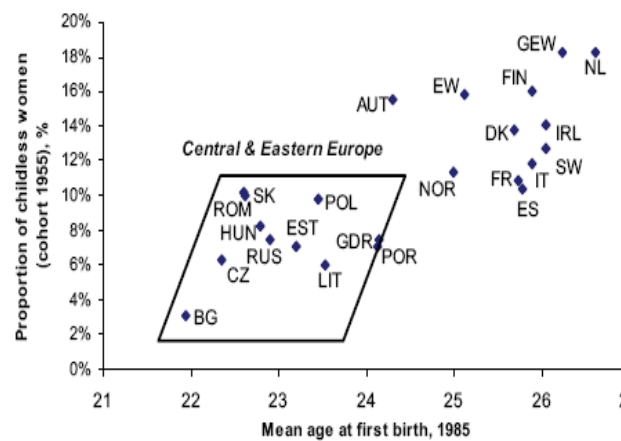
<sup>1</sup> Estimate based on induced abortion rate per thousand women aged 15-44 (the Netherlands) and 15-49 (Denmark), respectively.

<sup>2</sup> The lower value corresponds to the cohorts born in 1951-1960, whereas the higher values pertains to the cohorts born in 1961-1970.

Table 1 compares selected indicators of reproductive behaviour in 1985 and among the cohorts of women born around 1960 in two state-socialist countries, the Czech Republic and Hungary and two Western European countries, the Netherlands and Denmark. This comparison sketches a general, although

rough, snapshot of major differences and similarities between the ‘Eastern European pattern’ of family behaviour and the rapidly evolving trends in Western Europe just a few years before the political regime change in the East. Features that made the family behaviour in the East and in the West increasingly distinct are underlined in the table. These data suggest that the golden age of marriage and family that reached its heyday in Western Europe in the 1960s continued in Central and Eastern Europe into the late 1980s, marked by an early marriage and family formation with up to a quarter of women having a first child by the time they reached the age of 20, and a very low share of women, typically between 5 and 10%, who have never married or had no child. The new differentiation between the East and the West of Europe in the timing of childbearing and childlessness levels, reached by the mid-1980s, is depicted in Figure 5.

Figure 5: Proportion of Women Born in 1955 Remaining Childless and the Mean Age of Mother at Birth of First Child in 1985; 23 European Countries



Source: Sobotka 2003a, p. 207, Figure 8.1 (see detailed list of sources there).

Country acronyms: AUT – Austria, BG – Bulgaria, CZ – Czech Republic, DK – Denmark, ES – Spain, EST – Estonia, EW –England and Wales, FIN – Finland, FR – France, GDR – East Germany, GEW – West Germany, HUN –Hungary, IRL – Ireland, IT – Italy, LIT – Lithuania, NL – The Netherlands, NOR – Norway, POL – Poland, POR – Portugal, ROM – Romania, RUS – Russian Federation, SK – Slovak Republic, SW – Sweden.

Another distinction lies between a rapid rise of unmarried cohabitation in Western Europe, both as a prelude and a substitution to marriage (Heuveline and Timberlake 2004) and a parallel increase in non-marital childbearing. For instance, in the Netherlands a majority of 70% of women born in the 1960s experienced cohabitation, whereas the corresponding figure for the Czech Republic and Hungary among the cohorts born around 1960 were only 17%

and 10%, respectively (Table 1). With an exception of a few countries, the use of modern birth control remained low across the whole CEE region – also among teenagers having first sexual intercourse (Bajos et al. 2003, CDC 2003) – and abortion continued to serve as a sort of ‘emergency birth control’, with most countries registering abortion rates above one abortion per woman, well above the typical range of 0.2-0.6 abortions per woman in most Western European countries (Sobotka 2003b). Especially in the former Soviet Union abortion was widespread and widely accepted, especially among women with two or more children. In Russia, the mean number of abortions per woman reached a staggering level of 3-4 in the 1980s (Avdeev et al. 1995), although some experts reckon that the number was yet higher, possibly up to six, due to incomplete statistics and illegal abortions (Popov 1991).

Under the surface of stable family pattern, a number of gradual changes could be traced in some countries, often corresponding to trends that progressed with much higher intensity in Northwestern Europe since the 1970s. Croatia, East Germany, Hungary, and Slovenia experienced a decline of period TFR to or below 1.8 during the 1980s, heralding an era of long-term subreplacement fertility. While childlessness remained marginal, one-child families became more frequent especially in the former Soviet Union, arguably linked to tight housing conditions. In Russia, a widespread fertility preference was characterised by Avdeev and Monnier (1995: 34) as “at least one child, at most two.” Cohabitation has slowly emerged as a new living arrangement, in many countries practiced by divorced men and women, but in some, especially East Germany, Hungary, and Estonia, as a common, although usually short-lived, stage prior to marriage (e.g., Spéder 2005, Katus et al. 2007). Divorce rates increased rapidly and reached extremely high levels of 40-50% (i.e., the period total divorce rate was 0.4-0.5) in many parts of the Soviet Union during the 1980s, especially in Estonia, Latvia and Russia (Council of Europe 2006). In addition, the share of non-marital births rose gradually, surpassing 10% during the 1970s-1980s in Estonia, Hungary, Latvia, Moldova, Slovenia, and Ukraine, and even sooner in East Germany and Russia. Housing shortage often gave cohabitation and early marriage a peculiar eastern European twist: many young adults started living together in parental home and often established their own independent living only after many years of this mostly involuntary living arrangement. Among the cohorts born around 1960, between 28% (East Germany) and 40% (Latvia) of women left parental home after the start of their first union (Billari et al. 2001, Table 6). Except for Austria, only 1% (Belgium) to 11% (West Germany) of women in other parts of Europe started living with a partner before leaving parental home.

### 2.3 Understanding the 'Eastern European Reproductive Pattern' before 1990

By and large, the state socialist countries remained until 1990 immune to the huge family transformation occurring in the West. This stability can be explained by a mixture of institutional and cultural factors that jointly sustained the regime of universal and early reproduction under state socialism. Economically, young adults had considerably more predictable (and less exciting) lives than their counterparts in market democracies. A combination of relatively early completion of education, with a low enrolment in tertiary education in 1990 (below 20%; slightly higher in Bulgaria and the former Soviet Union; Sobotka 2002, Table AP-6) and full employment implied that most young adults became full-time earners by the age of 18. Labour force shortages, non-existent unemployment and very low wage differentials reduced economic uncertainty to low levels. Lack of political and economic freedom was 'exchanged' for relatively high levels of personal and economic security (Bauman 1992). Continuing low use of modern contraception and a wide reliance on abortion also meant that many women experienced unwanted and 'mistimed' pregnancies, generating some 'excess live births' that would not occur under the more efficient contraceptive regime.<sup>6</sup>

Living standards were lower than in the affluent Western countries, affected by permanent shortages of consumer goods and in some countries, especially Poland and Romania, even of non-essential food and personal care products, but limited career prospects and limited purchasing power did not make postponed childbearing an attractive alternative. To the contrary, families and family ties constituted an important source of social capital, with relatives and friends often helping each other with childcare, small repairs, home renovations, and obtaining goods and services on the black market or 'under the counter', substituting thus for underdeveloped and malfunctioning service sector. This peculiar form of familism was also linked to the extremely strong normative valuation of family life with children, which some sociologist perceived as an answer to lacking opportunities for self-realisation, both with respect to leisure activities (limited opportunities to travel abroad, scarcity of consumer goods, few possibilities for unofficial voluntary activities) and career prospects (low return to education, very limited opportunities for private enter-

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<sup>6</sup> Levine and Steiger's (2004) analysis of the impact of abortion restrictions on birth rates in Central and Eastern Europe suggests a pronounced impact only in the countries enacting very restrictive policies, namely Romania in 1966-89, Albania before 1991, and Poland since 1993. In these cases, restrictive abortion laws increased the birth rate by 17% (model without country effects) or 9% (model including country-specific trends). Moderate abortion restrictions, such as those enacted before 1990 in Bulgaria, Czechoslovakia and Hungary, had only a small effect, boosting birth rate by 4% (model with country-specific trends).

prise, and career progression often linked to the membership in the Communist party more than to skills). Family was a safe ‘fortress’ where people could express themselves freely and openly (Sobotka 2003a).

The Eastern European reproductive regime was also lubricated by numerous policies that were increasingly motivated by pronatalist concerns. Special governmental commissions were established and put in charge of designing population policies, at times with explicit population or natality targets.<sup>7</sup> Most of the housing, especially in cities, was owned by the state or by the municipality, often with long waiting lists, and spare flats were primarily allocated to married couples with children. Paradoxically, early marriage and childbearing – often seen as obstacles to enjoyable life among young adults in the ‘West’ – thus paved the road to independence for many young people in CEE (van de Kaa 1994). A range of other policies included extensions of maternity leave, expansions of childcare facilities, including crèches for children below the age of three, introduction of birth ‘bonuses’ and maternity payments, tax advantages, as well as some less conventional measures.<sup>8</sup> On the other side, a number of restrictions were imposed with the same goal, most frequently concerning access to abortion (see Frejka 1983, Stloukal 1999 and other contributions in David 1999). In some countries, including Bulgaria, Czechoslovakia, Hungary, and Romania, a range of restrictive measures enacted in the late 1960s and 1970s included compulsory pre-abortion interviews with a representative of the official women’s organization (Bulgaria), an approval by the abortion commission (Czechoslovakia), as well as abortion restrictions based on marital status, age, and the number of children (Bulgaria, Hungary, Romania). In addition, in the former Soviet Union, a special tax for unmarried and childless people over certain age has been established. Both positive incentives and restrictive policies had some envisioned effects. However, the increase in birth rates was often temporary, without increasing much the completed cohort fertility rate. As Zakharov’s (2008: 924) study on Russia noted, “the single indisputable effect which can be observed is the change of the timetable of births, expressed in the ‘rejuvenation’ of fertility of a whole series of cohorts”.

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<sup>7</sup> In the extreme case of Romania, the government decree of 1966, severely restricting access to abortion, also stipulated that birth rate should reach 18-19 per thousand population (it stood at 14.3 in 1966, but then remained above 18 until 1980) and that Romanian population should increase to 24-25 million by the year 1990 (Baban, 1999; the actual population size was 23.2 million in 1990). Romanian approach was extreme also in the efforts to limit access to contraception, with a complete ban on importing and selling contraception enacted in the 1980s (Serbanescu 1995, Baban 1999).

<sup>8</sup> For instance, in Czechoslovakia, a household loan of 30,000 Crowns (CZK) for the newlyweds was established since 1973, with CZK 2,000 written off one year after the birth of the first child and CZK 4,000 written off one year after the birth of the second or subsequent child (Heitlinger 1976). Women’s retirement age also depended on the number of children, with mothers having three or more children retiring three year sooner (at age 54) than the childless women (Wynnyczuk and Uzel 1999).

### 3. Fertility Collapse and Recovery: 1990s and 2000s

The state-socialist system, marked by state ownership of an almost entire economy, rigid planning, lack of democratic freedoms, and the political power monopoly of the Communist party, has collapsed in Central and Eastern Europe between 1989 and 1991. The ensuing political turmoil paved the way to the break-up of three multiethnic countries, namely Soviet Union, Yugoslavia and Czechoslovakia, in 1991-1993, civil war in parts of the former Yugoslavia, as well as German unification in 1990. An unprecedented political, economic and social transformation took place over the 1990s, establishing market economy and multiparty political system in most countries. Two waves of the European Union enlargement in 2004 and 2007 completed the process of political and economic transformation in Central and Eastern Europe, with ten post-communist countries (Bulgaria, the Czech Republic, Estonia, Latvia, Lithuania, Hungary, Poland, Romania, Slovakia, and Slovenia) becoming members.

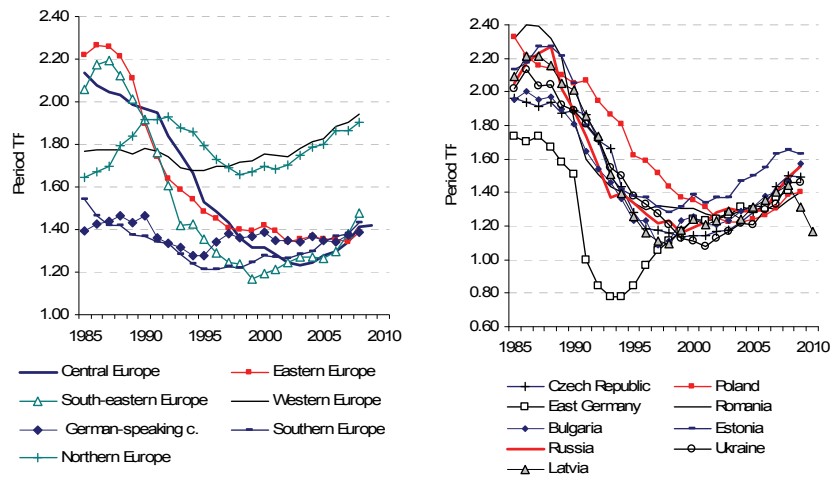
Not only the political map of Europe has been redrawn after 1989, but also the demographic one. Demographic changes in Central and Eastern Europe have been frequently described as sudden, unprecedented, sweeping, breathtaking, and precipitous. Some observers talk about a demographic crisis as some countries, especially in the former Soviet Union experienced a simultaneous effect of falling fertility, worsening mortality and morbidity conditions, and widespread emigration (for Russia, see da Vanzo and Farnsworth 1996 and Eberstadt 2010). This section first describes the rapid family changes in the 1990s and then discusses the slow recovery of period fertility after the year 2000 and the new diversity in reproductive behaviour.

#### 3.1 Fertility ‘collapse’ and the Onset of the ‘Postponement transition’: 1990-1999

While fertility rates had gradually declined in many countries of Central and Eastern Europe already during the 1980s, the political regime change around 1990 led to a massive fertility decline that extended over most of the 1990s. Within a decade, the CEE region has shifted from being a highest-fertility region of Europe to being one with the lowest fertility rates (Figure 6). As of 1989, regional levels of the period total fertility rate were close to 2, ranging from 1.99 in Central Europe to 2.11 in Eastern Europe, well above the level in other parts of Europe, especially Southern Europe (1.38) and the three German-speaking countries (1.44). Ten years later, in 1999, when Eastern European fertility decline bottomed up, the period TFR ranged between 1.17 in Eastern Europe to 1.39 in south-eastern Europe. Both region-specific data as well as selected country trajectories shown in Figure 6 depict remarkable similarity across the region in the progression of period fertility decline through the late 1990s and a gradual recovery after 2000. Some country-specific trends emerge, though, of which the most notable is the fertility ‘collapse’ in Eastern Germany

(former GDR) in 1991-1993, which brought East German period TFR to a record-low level of 0.77 in 1993-94.

Figure 6: Period Total Fertility Rate in Major European Regions and in Selected Countries of Central and Eastern Europe, 1985-2009



Sources: Council of Europe 2006, Eurostat 2010, VID-IIASA 2010, national statistical offices.

Notes: Scale of the vertical axis varies on these two graphs. Latvian data are included also for 2010; the 2010 period TFR was estimated from the number of live births in January-November 2010.

Regional division: Regions shown in the figure are listed below Figure 2, except the following ones:

*Central Europe:* Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, Slovenia;

*South-eastern Europe:* Bulgaria, Macedonia, Montenegro, Romania, Serbia;

*Eastern Europe:* Belarus, Moldova, Russia, Ukraine;

*Western Europe:* Belgium, France, Ireland, Luxembourg, the Netherlands, United Kingdom;

*German-speaking:* Austria, Germany, Switzerland.

*Southern Europe:* Italy, Greece, Portugal, and Spain;

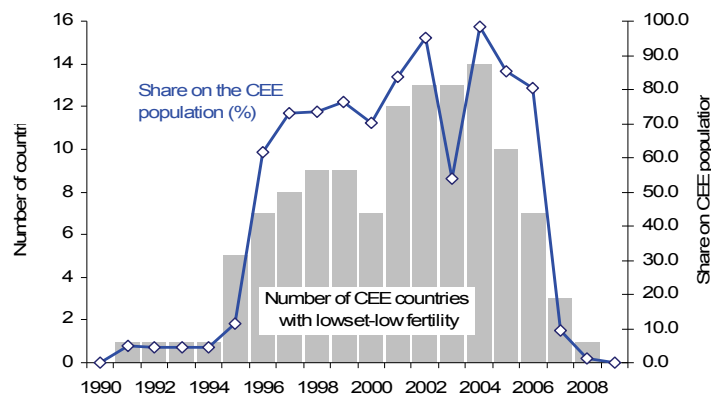
*Northern Europe:* Denmark, Finland, Norway, and Sweden.

This spectacular decline has been closely linked to German unification in October 1990, as monthly data presented by Witte and Wagner (1995) suggest. Thus, the temporary ‘freeze’ in births, but also in marriages and divorces, is often seen as a rational reaction to the new institutional and economic environment after the unification, bringing about an introduction of the new currency, new laws, massive economic restructuring, huge unemployment, but also new opportunities literally overnight (e.g., Conrad et al. 1996). In effect, East Germany experienced an accelerated version of the fertility transformation that most of the post-communist countries have gone through after 1990. Also

in the case of Romania, the collapse of state socialism had an immediate bearing on reproductive choices of women: an extremely restrictive antiabortion legislation as well as the de-facto prohibition of modern contraception was scrapped on 26 December 1989 – within a few days after the fall of Nicolae Ceauşescu who had pursued extreme pronatalism for more than two decades (Baban 1999, Keil and Andreescu 1999). Without surprise, Romanian fertility rates fell strongly in 1990.

The fall in fertility over the 1990s gave rise to the phenomenon of extreme low period fertility rates, with the levels of the period TFR below 1.3 coined by Kohler et al. (2002) as a ‘lowest-low fertility’ and analysed in detail by Goldstein et al. (2009). The spectacular rise and decline of this phenomenon in the post-communist countries of Europe is illustrated in Figure 7. Out of 16 countries considered, 14 countries, representing 98% of region’s population reached such a low period fertility level in 2004, up from none in 1990 and five in 1995. However, a modest recovery in period fertility rates put this number back to nil by 2009. Only Croatia never reached such low fertility; in the other 15 countries its duration varied between one year in Estonia and 16 years (1991-2006) in East Germany, which was included as a separate region.

Figure 7: The Rise and the Decline of the ‘lowest-low fertility’ (Period TFR Lower Than 1.3) in Central and Eastern Europe, 1990-2009



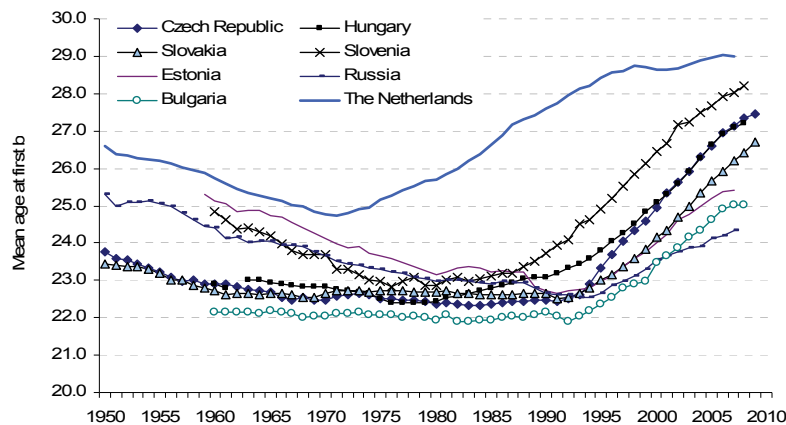
Sources: Council of Europe 2006, Eurostat 2010, VID-IIASA 2010, national statistical offices.  
Note: Data are based on the following 16 countries, including separately the region of East Germany (former GDR): Belarus, Bulgaria, Croatia, Czech Republic, East Germany, Estonia, Hungary, Latvia, Lithuania, Moldova, Poland, Russia, Romania Slovakia, Slovenia, and Ukraine.

The fall in period fertility rates have been accompanied (and also partly caused) by a shift towards a later timing of first births, illustrated in Figure 8. The remarkable uniformity in the early childbearing pattern in the mid-1980s, when

most state-socialist countries had a mean age at first birth around 22-23 years, has been replaced by a regionally-varied pattern of later childbearing. Central European countries saw a particularly rapid shift to a later birth timing, with Slovenia experiencing the sharpest rise, from 23.2 years to 28.2 years within two decades to 2008. In contrast, the rise in childbearing age has been gradual only in south-eastern and Eastern Europe, with Russia retaining a relatively young first-birth pattern with a mean age at first birth of 24.3 in 2007 (Human Fertility Database 2010).

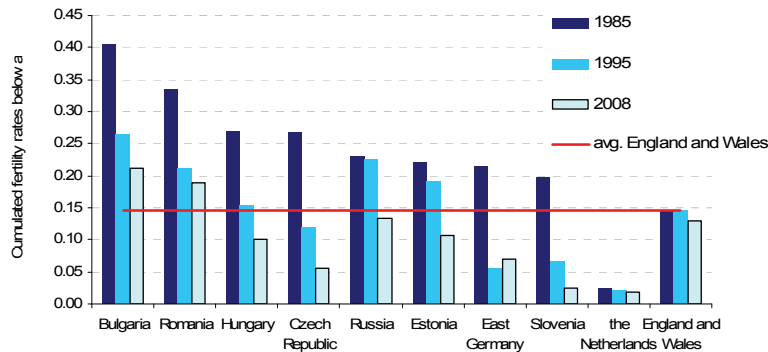
As a consequence of the shifting age at childbearing, the high frequency of teenage childbearing – one of the defining feature of the Eastern European reproductive pattern – has diminished rapidly (Figure 9). However, the change was very uneven across countries: in the mid-1980s all the countries of the region had a cumulative teenage fertility in the order of 0.2-0.4 births per woman, representing 10%-20% of their total fertility. This was well above the highest levels of teenage fertility in Western Europe, found in England and Wales, (around 0.15), and more than ten times higher than in the Netherlands (0.02). Twenty years later, teenage fertility in Central Europe fell below that in England and Wales (where it remained rather stable), with Slovenia reaching the Dutch extreme low levels. However, in Russia and most other Eastern European countries it remained higher, close to the highest levels reached in Western Europe. It stayed yet higher in Romania and especially Bulgaria (0.21), where it still contributed up to 15% of the overall TFR. Furthermore, teenage fertility remained rather stable since about 2002, suggesting that the observed new heterogeneity is likely to prevail for some time.

Figure 8: Period Mean Age at First Birth Among Women, Selected Countries of Central and Eastern Europe Compared With the Netherlands, 1950-2009



Sources: Council of Europe 2006, Eurostat 2009 and 2010, VID-IIASA 2010, Human Fertility Database 2010, national statistical offices.

Figure 9: Cumulated Period Fertility Rates Below Age 20, Selected Countries of Central and Eastern Europe Compared With the Netherlands and England and Wales, 1985-2008



Sources: Council of Europe 2006, Eurostat 2010, Human Fertility Database 2010, and national statistical offices.

Not only the level and timing of fertility in Central and Eastern Europe changed rapidly, but also the family context of childbearing has undergone a rapid transformation. With a few exceptions, especially East Germany and Slovenia, only a small percentage of births, typically around 10% or less, occurred outside marriage prior to 1990 (Figure 10). The subsequent rapid rise in non-marital births occurred in parallel with a generally slower, but earlier and longer-lasting increase in Western and Northern Europe. However, this trend was very uneven across countries. In Estonia and East Germany, the share of non-marital births jumped to around 60% in 2008, making marriage almost irrelevant for childbearing and widening the difference between eastern and western parts of Germany. Similarly, in Bulgaria, the share of non-marital births skyrocketed from 9% in 1990 to 53% in 2009. In the Czech Republic and Hungary, it increased to a typical Western European level around 40% in 2009. In contrast, a slower rise has been observed in Poland and in Eastern European countries; in the latter region, as well as in Romania, the share of non-marital births has temporarily peaked around 2004, with a slight decline recorded thereafter. Finally, in Croatia only 12% of births took place outside marriage in 2009, representing one of the lowest shares in Europe. These trends point out at a rapid, but also differentiated spread of cohabitation and, to a smaller extent, of single motherhood, across the region. Religious, cultural, and historical explanations may be pointed out, with most secular, especially Protestant, countries and the countries with a longer tradition of unmarried cohabitation and extramarital fertility registering the highest share of non-marital births. Such strong divisions can also be traced at a regional level within countries, where the variation of extramarital childbearing is often pronounced, overlap-

ping especially with the religious-traditional dimension, but also with educational and ethnic composition of the region's population.<sup>9</sup>

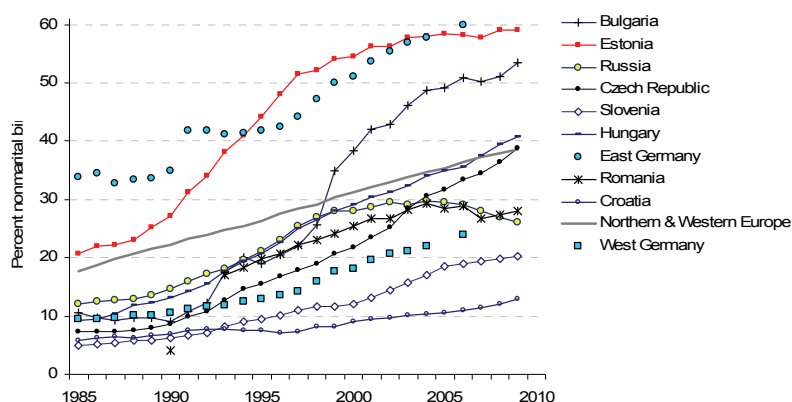
Corresponding to the trend in nonmarital childbearing, marriages have been postponed to later ages, often with a higher intensity than births, and marriage rates fell sharply (Sobotka 2003b, Sobotka and Toulemon 2008), creating an increasing pool of never married men and women of reproductive age. In the countries with largest disconnection between marriage and fertility, such as Estonia or Slovenia, the mean age at first marriage has surpassed the mean age at first birth among women after 2000, indicating that many coupled enter marriage after the birth of their children, if at all.

Fertility decline progressed in parallel with a fall in abortion rates, signalling a welcome dissemination of modern contraception after 1990. Available statistics shows impressive reductions in induced abortion rates between 1990 and 1999, often by 50% or more (Sobotka 2003b). For instance, in the Czech Republic the total induced abortion rate – a hypothetical number of induced abortions per woman based on the observed abortion rates by age in a given year – fell from 1.5 to 0.5 in that period (Figure 16 below), in Bulgaria from 2.4 to 1.3, and in an extreme case of Romania, where access to abortion was liberalised in 1990 in the absence of broader availability of other contraceptive means or knowledge about their use, this reduction was from a high value of 6.1 to 1.5 (see also Figure 4). Such declines heralded a diminishing reliance on induced abortion, which was yet another hallmark of Eastern European reproductive pattern. The change took place due to a combination of positive behavioural changes – the dissemination of oral contraception and condoms (often with the assistance of international organisations such as USAID (CDC 2003)) – as well as sex education and information campaigns, and some new restrictions, concerning mostly payments for abortion (David 1999). In Poland, an almost complete abortion ban took place since 1993 under the pressure of the Catholic Church and conservative political forces (Kulczycki 1995) and despite its controversy and a reported widespread use of illegal abortion performed in the neighbouring countries it has remained in force (Titkow 1999). However, as with the case of non-marital births or teenage fertility, the diversity of central and Eastern Europe in abortion use remains huge, with the current total abortion rate ranging from 0.3 in the Czech Republic and Slovakia up to the values over 1 in some countries of Eastern and south-eastern Europe (Sobotka 2003b, CDC 2003, Sedgh et al. 2007).

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<sup>9</sup> For instance, in Slovakia in 2005-2009, the share of extramarital births remained below 10% in two districts with highly religious Catholic population, Námestovo (6%) and Tvrdošín (8.7%), as compared with the country mean of 28% in that period (VDC 2010).

Figure 10: Share of Extramarital Births in Selected Countries of Central and Eastern Europe, 1985-2009, in %



Sources: Council of Europe 2006, Eurostat 2010 and 2011, and national statistical offices.

### 3.2 Fertility Increase and the New Diversity in Family Behaviour after 2000

In most countries of Central and Eastern Europe the first decade of the 21st century saw a continuation of family and fertility trends initiated in the 1990s or even earlier, albeit often with a lower intensity. However, one feature clearly distinguishes the period after 2000 from the previous one: Cohorts of women that had put off childbearing until a later time in the 1990s increasingly started having children, stimulating thus an increase in fertility rates ('recuperation') at ages 28 and higher and a general upturn in period total fertility rates. This upturn was also driven in many countries by a stabilisation of fertility at younger ages, signalling a slow-down or a halting in the postponement of childbearing among the young cohorts born after 1980. Another trend that has become increasingly apparent after 2000 is a social status differentiation in reproductive behaviour, with specific social groups of men and women adopting increasingly differentiated reproductive strategies.

The upturns in the period total fertility rates, leading to a rapid shrinking in the number of countries with extreme low period fertility, have been illustrated in Figures 6 and 7 above. Table 2, updating an earlier analysis of Goldstein et al. (2009), gives a systematic overview of fertility reversals by country since the year the lowest period TFR has been reached. Except in East Germany, where fertility rate bottomed out already in 1994 and in Macedonia where it remained around the lowest level in 2008, the lowest period total fertility has been reached between 1997 (Bulgaria) and 2004 (Belarus). Several countries – Bulgaria, the Czech Republic, Latvia, and Ukraine – briefly experienced a TFR

around 1.10. The duration of spells with the ‘lowest-low fertility’ (TFR below 1.3) varied, with seven countries registering ten or more years of such low period TFR. Also the subsequent upturns differed widely and were strongest, with a TFR increase over 0.3 in absolute terms, in Bulgaria, the Czech Republic, Estonia, Lithuania, Russia, Slovenia, and Ukraine. Although the fertility decline of the 1990s has only partly been ‘made up’ by the post-2000 recovery (except in Slovenia, where as much as 94% of the decline has been ‘recovered’), these increases allow a less dramatic reading of period fertility than often pursued by the media and some experts. As of 2009, the period TFR stayed at a low level close to 1.4 in many countries, but in Bulgaria, Estonia, Lithuania, Russia, and Slovenia it surpassed 1.5, often considered a threshold of very low fertility, which according to McDonald’s (2008) argument is difficult to reach once a country experiences very low fertility for a longer period of time. At the same time, all countries except Russia had a lower period TFR in 2009 than was the completed cohort fertility of women born in 1968 (Table 2, VID-IIASA 2010). Whether this signals a likely further decline of completed fertility remains to be seen, as the period TFRs still continued to be negatively affected by the shifts to a later timing of childbearing in the late 2000s. An adjustment method by Bongaarts and Feeney (1998) that aims to correct this tempo distortion put the country-level period total fertility around 2006 higher, between 1.5 in Eastern Europe and Poland and 1.9 in Estonia (Table 2).

Fertility has also become more differentiated by social status, especially with respect to the timing of childbearing and marital status of mothers. The rising differentiation in fertility timing is manifested by a broadening of the curve of fertility by age and an increase in the indicators of age heterogeneity, such as inter-quartile ranges (Sobotka 2004a, Table 3.5) and the standard deviation of the age at childbearing.<sup>10</sup> This trend marks an end of the highly concentrated pattern of birth timing before 1990. Educational degree has become a key factor differentiating reproductive behaviour. Highly educated women and men have postponed childbearing to ever later ages, while those with low education often continued entering parenthood at an early age (Kantorová 2004, Šprocha and Potančoková 2010). This trend, illustrated for Slovakia in Figure 11, is partly related to the polarisation in the partnership context of childbearing, with relatively few university-educated women having children outside wedlock and many – often a majority – of women with the lowest or no educational degree having children outside marriage (see Sobotka 2008, Table 1, for the Czech Republic, Hungary, and Poland). This differentiation, illustrated also on the example of Slovakia (Figure 11, right panel), has existed for many dec-

<sup>10</sup> In many CEE countries, the standard deviation in the age at first birth rose from the level of 3-4 years before 1990 to 4-5 years around 2005. In one of the countries with a fastest increase, Slovakia, it rose from 3.8 years in 1990 to 5.2 in 2007 (own computations from the Slovak data in the Human Fertility Database 2010).

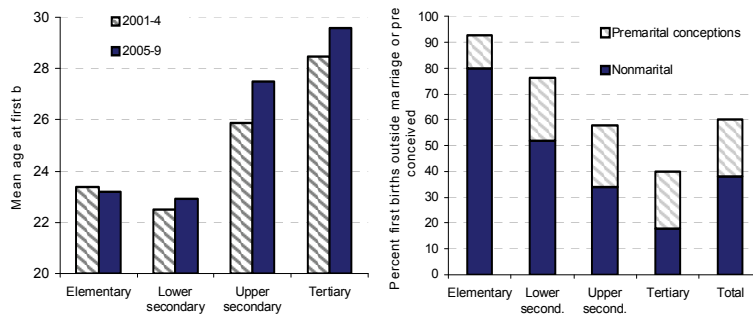
ades, but became considerably more pronounced with a rapid spread of non-marital births after 1990. The rising social status polarisation in reproductive behaviour can partly be attributed to rising social inequalities, especially the increasingly disadvantaged position of lower-educated women and men on one side and increasing return to education after 1990 on the other side. A similar trend has been documented for the United States and some other Western societies (McLanahan 2004). In addition, the differentiation in the age at child-bearing can also partly stem from an increasing incompatibility between work and family life (Rendall et al. 2009).

Table 2: Period Fertility Trends in 1989-2009 in Central and Eastern Europe and the Completed Fertility of the Women Born in 1968

	TFR in 1989	Lowest TFR recorded		Years with TFR <1.3	TFR in 2009	Abso- lute increase	% decline recovered	Tempo-adjusted TFR, 2006	Cohort TFR (1968)
		Year	Level						
Central Europe									
Croatia	1.67	2003	1.33	0	1.47 ('08)	0.14	41	1.63	1.80
Czech Rep.	1.87	1999	1.13	11	1.49	0.36	49	1.79	1.90
East Germany	1.58	1994	0.77	16	1.38 ('08)	0.61	75	n.a.	1.52
Hungary	1.82	2003	1.27	3	1.33	0.06	11	1.65	1.92
Poland	2.10	2003	1.22	5	1.40	0.18	20	1.50	1.90
Slovakia	2.09	2002	1.19	7	1.41	0.22	24	1.66	2.00
Slovenia	1.53	2003	1.20	11	1.51	0.31	94	1.60	1.80
South-eastern Europe									
Bulgaria	1.90	1997	1.09	10	1.57	0.48	59	1.73	1.61
Mace- donia	2.10	2005-7	1.46	0	1.47 ('08)	0.01	2	1.72	n.a.
Romania	2.21	2002	1.26	6	1.40	0.14	15	1.55	1.72
Baltic countries									
Estonia	2.22	1998	1.28	1	1.63	0.35	37	1.90	1.88
Latvia	2.05	1998	1.10	10	1.31	0.21	22	1.61	1.80
Lithuania	1.98	2002	1.24	5	1.55	0.31	42	1.75	1.81
Eastern Europe									
Belarus	2.02	2004	1.20	9	1.44	0.24	29	1.47	n.a.
Moldova	2.78	2002	1.21	8	1.33	0.12	8	1.46	n.a.
Russia	2.02	1999	1.16	10	1.56	0.40	47	1.52	1.62
Ukraine	1.92	2001	1.08	10	1.46	0.38	45	1.55	n.a.

Sources: Council of Europe 2006, Eurostat 2010 and 2011, VID-IIASA 2010 (data on tempo-adjusted TFR and cohort TFR), Human Fertility Database 2010, national statistical offices.

Figure 11: Mean age of mothers at first birth by educational attainment in Slovakia in 2001-4 and 2005-9 (left panel) and the marital status of mothers at first birth in Slovakia in 2009



Source: Based on Šprocha and Potančoková (2010, Table 6.2 and Figure 6.3).

### 3.3 Cohort Changes in Family Behaviour

By the early 2000s, profound changes in cohort reproductive patterns in Central and Eastern Europe became clearly manifested, especially among the cohorts born in the 1970s. The initially extreme low childlessness levels, typical for many state-socialist countries, have started rising, approaching or surpassing 10% in the late-1960s cohorts (Figure 3 above). However, considering that younger people in the region still continue giving high importance to parenthood and often hold unfavourable views on voluntary childlessness (Liefbroer and Fokkema 2008), cohort fertility decline is mostly manifested by a rising share of women with one child, which increased by 5 % or more in five out of six countries listed in Table 3. One-child families have become most common in Eastern Europe and the Baltic States as well as in East Germany, Romania, and Bulgaria (not shown here). In East Germany and Russia, almost 40% of women born in the late 1960s will have one child only, which signals a strong erosion of a two-child family dominance. In the region of the former Soviet Union as well as in East Germany, one-child families have become almost as frequent as two-child families.<sup>11</sup> In the former Soviet Union, this trend has begun already during the state-socialist period, partly driven by cramped housing conditions (Avdeev and Monnier 1995).

<sup>11</sup> In Russia, the 1968 cohort may be the first one where more women will have one child rather than two. At age 40, as many as 40% of Russian women from that birth cohort had one child, whereas 39% had two children (Human Fertility Database 2010).

Table 3: Share of Women Having One Child, Birth Cohorts 1955 and 1966

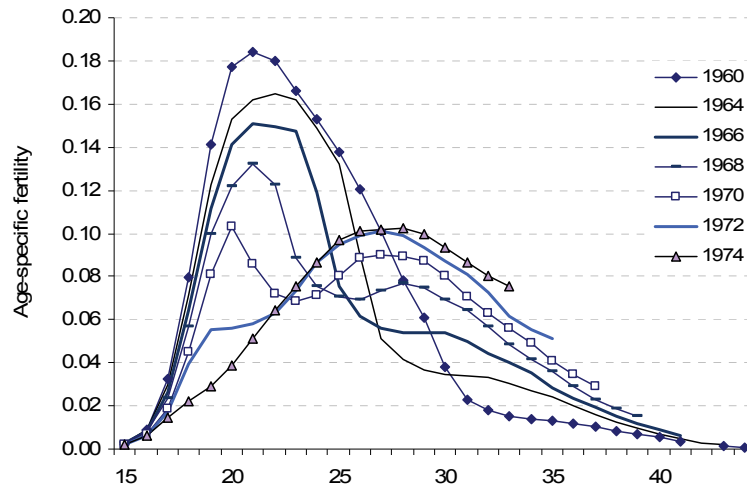
Cohort	Czech Republic	Estonia	East Germany	Hungary	Russia	Slovakia
1955	14	24	27	21	25	11
1966	19	31	37	22	38	18
<i>Abs. change</i>	5	6	10	1	13	6

Sources: Human Fertility Database 2010 (Czech Republic, Estonia, Russia, Slovakia), parity distribution data provided by Hungarian Statistical Office (courtesy of Ferenc Kamarás), and Statistisches Bundesamt 2009 (Mikrozensus survey) for East Germany.

Notes: Data for the 1966 cohort are preliminary as they were measured at ages 40-42. Absolute change was computed from the more detailed data and does not always correspond to a simple difference between the two rounded numbers. Data for East Germany pertain to the following birth cohorts: 1954-58 and 1964-68.

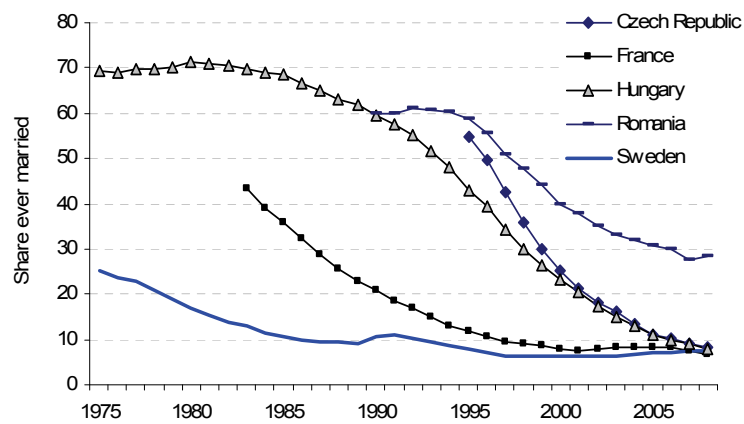
The age pattern of cohort fertility has undergone a profound transformation, which is best illustrated on the example of East Germany (Figure 12). The left-skewed early fertility pattern of the 1960 cohort with a peak at age 21 was replaced by a symmetrical pattern of later childbearing among the 1974 cohort, peaking around age 28. The intermediate cohorts witnessed a rapid rupture in their fertility schedule, corresponding especially to the early period of German unification in 1990-1992. Marriages have undergone a similar transformation, marked by an almost complete disappearance of early marriages in Central Europe and Baltic countries. For instance, the share of women married at age 22 fell in the Czech Republic and Hungary from over 50% in the early 1990s to a mere 8% in 2008 (i.e., among the women born in the mid-1980s), converging to the low level typical of northern, western and southern Europe (Figure 13, see also Sobotka and Toulemon 2008). A slower decline of an early marriage took place in south-eastern and Eastern Europe. In parallel, unmarried cohabitation has risen in prominence. As Figure 14 shows for three countries with available survey data – Bulgaria, the Czech Republic, and Russia – a majority of women born after 1975 experienced cohabitation as their first union, up from about a quarter among the women born in the early 1960s. In Bulgaria as well as the Czech Republic this trend has accelerated among the women born since the mid-1970s, whereas in Russia, but also in Hungary (Spéder 2005: Figure 1) cohabitation spread fast already before the regime change among the 1960s cohorts (e.g., Gerber and Berman 2010).

Figure 12: Transformation of the Age Pattern of Cohort Fertility in East Germany; Women Born in 1960-1974



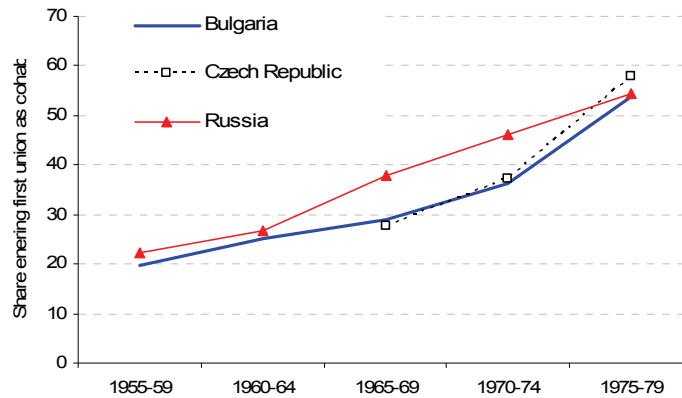
Source: Human Fertility Database 2010.

Figure 13: Percent of Women Ever Married by Age 22, Five European Countries, 1975-2008



Source: Eurostat 2011.

Figure 14: Percent of Women Who Experienced Cohabitation as Their First Partnership Union; Cohorts Born in 1955-79 in Bulgaria, the Czech Republic and Russia



Sources: Sobotka et al (2008, Table 6), Kostova (2007).

Notes: Data are based on a *Generations and Gender Survey* conducted between 2001 and 2005. Data show the share of women that experienced cohabitation as their first union among those who entered first union (marriage or cohabitation) by the time of the survey (in the Czech Republic only women entering a first union below age 30 were included).

A broad acceptance of cohabitation, especially as a premarital living arrangement is also indicated by its diffusion across social groups. Studies for Central and Eastern Europe suggest that cohabitation in most countries spreads rapidly among both the lower- as well as the higher-educated individuals (Spéder 2005 for Hungary, Gerber and Berman 2010 for Russia).<sup>12</sup> However, cohabitation is more frequently transformed into marriage among the higher-educated individuals and most countries, including Russia, retain negative educational gradient of childbearing in cohabiting unions (Perelli-Harris et al. 2010). At the same time, higher acceptance of cohabitation has eased the pressure to marry in case of pregnancy, as manifested by a rapid decline in the number of ‘shotgun weddings’ in the Czech Republic, where the share of pre-maritally conceived first births fell from over 50% around 1990 to 30% in 2006 (Sobotka et al. 2008, Figure 8).

The rise of cohabitation was not strong enough to offset a general decline in the share younger people living with a partner, observed especially in the 1970s cohort (e.g., Spéder 2005 for Hungary, Mureşan 2008 for Romania). A general postponement of partnership formation has taken place in most countries as young adults have stayed longer in parental home and also the number of peo-

<sup>12</sup> In Poland, where cohabitation remains less common than in most other countries, it spreads more rapidly among the lower-educated women (Matysiak 2009).

ple living single has increased gradually. However, given the lack of affordable housing, single living among people in their 20s – a rare living arrangement during the state socialism – has spread much slower than living with parents.

#### 4. Understanding Fertility and Family Shifts after 1989: Theories and Explanations

Initial observers of family changes in Central and Eastern Europe after 1990 often adopted a dichotomous perspective, putting an ‘economic crisis’ perspective against the ‘value changes’ view. Later, a more differentiated view of lasting and multifaceted changes driven by a complex societal transformation has crystallised. Increasingly detailed and sophisticated studies emerged, putting together different pieces of the puzzle of the post-communist fertility and family changes across countries (Billingsley 2010, Lesthaeghe and Surkyn 2002, Philipov and Dorbritz 2003, Thornton and Philipov 2009, Frejka 2008, Sobotka 2003a and b and 2008, contributions in Kotowska et al. 2003) and in individual countries (country contributions in Frejka et al. 2008, Aassve et al. 2008, Kreyenfeld 2004, Kantorová 2004, Zakharov 2000, Sobotka et al. 2003, Perelli-Harris 2005 and 2006, Philipov et al. 2006, Kohler and Kohler 2002, Mishtal 2009, Gerber and Berman 2010). It is not easy to discuss all the important factors as only listing them requires a lot of space (see Frejka 2008: 163-164 for such a list). Here I outline first some broader features of post-communist social transformation and then focus on a few most relevant factors driving the shifts in reproductive behaviours.

##### 4.1 The Post-Communist Social and Economic Upheavals

The implosion of the state-socialist system around 1990 constituted a great social upheaval, a situation in which institutions change rapidly and in which almost invariably fertility falls as a result (Caldwell 2004). The pillars that sustained the previous system of relatively early and universal marriage and reproduction have collapsed, including many family policies, the system of preferential housing distribution, the pattern of full employment and limited labour market competition, as well as income equalisation. The economic transition from the state-controlled regulated system to mostly private-owned market economy was accompanied by pronounced economic downturns, with high inflation, rapidly rising structural unemployment, collapses of ineffective industries, and poverty as well as massive cuts in social spending affecting to some extent all societies, and being particularly severe and long-lasting in the former Soviet Union (Manning 2004). Labour market and wages became more differentiated by social status, but also region. Many people, especially women, retreated from the labour market in some countries, and the initially high female labour force participation rates declined or stagnated (Macura 2000,

Rostgaard 2004), often picking up slightly only after the long-term economic recovery of the early 2000s (Heyns 2005). Thus, paradoxically, fertility fell in the 1990s when female labour participation declined in many countries.

A massive change occurred in higher education, with enrolment in universities expanding rapidly, especially in Central Europe, as returns to education rose sharply and high education became a prerequisite for good employment chances (Kogan and Unt 2005).<sup>13</sup> Staying in education also emerged as a welcome alternative to labour market uncertainty and to the prospect of temporary jobs and unemployment which became common among the young and lower educated people. The boom in tertiary education was a major factor behind the postponement of births, partnership formation, and marriages, as having children during one's studies became rare and many younger people increasingly postponed family formation even after the completion of their education (e.g., Kantorová 2004 for the Czech Republic).

In contrast, shrinking supply and partly also demand characterised the other side of the education spectrum, crèches and kindergarten. Especially the expensive system of crèches, rather comprehensive in many countries before 1990, has been partly abandoned, with the enrolment rates for children below age 3 falling below 5% during the 1990s in the Czech Republic, Poland, Romania, and Slovakia (Unicef 2009).<sup>14</sup> In many countries, leave policies have been adjusted accordingly, with long periods of parental leave of up to 3 years (or even 4 years, but without workplace reservation, in the case of the Czech Republic). In contrast, enrolment in kindergartens for preschool children remained high, although rapid declines and later upturns have been recorded in some countries, especially in Lithuania (Stankuniene and Jasilioniene 2008).

Women's position has changed in many respects as well. High female employment under state socialism was not perceived by women as a marker of emancipation, since it was partly 'imposed' by the system where employment was not considered a voluntary choice, where only a few families could secure a decent income from husband's wage alone, and where traditional gender attitudes, shortages of basic products and underdeveloped service economy confined women to many domestic tasks (Šiklová 1993). Therefore, women often viewed their position as a double slavery, having to combine full-time work – often in worst-paid and least prestigious jobs – with a responsibility for after-school childcare, cooking, home cleaning, dishwashing, and grocery

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<sup>13</sup> In Hungary, where this trend has been yet more pronounced than elsewhere, the share of young adults aged 19-24 enrolled in education jumped from 12% in 1989 to 60% in 2004; the increase was only slightly less pronounced in Poland, which reached tertiary enrolment of 54% in 2004 (Unicef 2006).

<sup>14</sup> These countries remain at the tail end of the European ranking of countries by the share of children below age 3 enrolled in institutionalised childcare. As of 2008, other countries in the region had higher crèches enrolment rates, with 10% (Hungary) to 29% (Slovenia) of children enrolled (Unicef 2009).

shopping. This partly explains why there has been a rather cold reaction among women to feminist movement and gender equality agenda after 1990: Einhorn (1991), noting in *Feminist Review* a conspicuous absence of women's movement in the region, aptly titled her article "Where have all the women gone?" Instead, new ideologies supporting more traditional gender role division, gained on prominence (Chorvát 2007). The economic transformation as well as policy-making were firmly in hand of men, with very few women being represented in politics. Surprisingly, many people expressed preference in allocating jobs to men and supported female domestic role (Schnepf 2005).<sup>15</sup> As Stankuniene and Jasilioniene (2008: 731) noted about Lithuania, there was "an evident contradiction between the high rate of female employment and education and the dominant patriarchal attitudes". At the same time, many new opportunities arose: Most notably, women have outnumbered men in tertiary education enrolment and filled many jobs in the rapidly expanding service economy.<sup>16</sup> They work in occupations with lower salaries, but often retain lower unemployment rates in uncertain times as men work more often in recession-hit sectors such as construction.<sup>17</sup> More recently, new family-work reconciliation policies, partly motivated by the European Union directives and recommendations, more flexible parental leaves, and increased support to organised childcare improved women's position somewhat

The economy has been transformed profoundly. The structure of employment shifted towards the service sector and a privatisation, opening the economy to international trade and competition, as well as foreign investment, often gave impetus for new activities and opportunities. Consumer culture, evolving under the limited choice (as well as black markets) before 1990, has started thriving right after the regime change. Despite economic recession, many households acquired a car, a colour TV, a computer, and other new consumer durables during the 1990s. Lifestyle has changed as well, especially in the richer countries of Central Europe, with travel, shopping, healthy lifestyle and other activities that are not easily compatible with family life gaining on importance. New political and economic freedoms have thus created a vast array of opportunities for self-realisation, often competing with reproductive plans.

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<sup>15</sup> Schnepf (1995) demonstrated in her detailed PhD study very high support for 'patriarchal gender attitudes' among both men and women across Central and Eastern Europe in 1998. This attitude was age-structured, indicating that older men and women, despite (or because) of their socialisation during state socialism, expressed most traditional views. The support for patriarchal attitudes was extremely high and least age differentiated in Bulgaria and Russia.

<sup>16</sup> In 2007-8 women made up 54% (Hungary, Ukraine) to 65% (Latvia) of students in tertiary education (Unicef 2009).

<sup>17</sup> This has been the case especially in the three Baltic countries during the most recent recession, when male unemployment rates in 2009 widely surpassed those among woman and reached 17-20% (Eurostat 2011).

## 4.2 Major Explanations of Family and Fertility Shifts after 1989

This section gives a more detailed account of four prominent explanations of fertility changes in Central and Eastern Europe after 1990: the factors related to the economic crisis and uncertainty, the changes in family-related values as captured by the concept of the ‘second demographic transition’, the ‘postponement transition’ view, and the ‘contraceptive revolution’ perspective. These explanations are not mutually exclusive, rather they are often closely linked and complement each other.

### *Economic Crisis and Uncertainty*

Measured with the usual indicators, the economic crisis after 1990 was severe in the region. But the differences between countries in its severity were huge. A few countries of Central Europe, especially the Czech Republic and Slovenia, had a relatively smooth transition, keeping low poverty rates, relatively comprehensive social safety net, more limited income disparities, moderate unemployment levels, and a gradual wage increase after 1992, following the initial phase of economic transformation. On the other side, countries of the former Soviet Union, especially Moldova, Russia, and Ukraine, witnessed a protracted crisis with a continuous economic decline over the 1990s, and a chaotic transformation marked by huge poverty, massive rise in income inequalities, sharply deteriorating living standards, and a failure of the governments to provide even the essential social and health services.<sup>18</sup> One of the clear manifestations of the social and economic malaise as well as the psychological stress it entailed was a decline in life expectancy in Eastern Europe, which pushed a few countries back by several decades. In Russia, the life expectancy for males fell by 7 years, from 64.5 to 57.4 years between 1989 and 1994 (e.g., Shkolnikov et al. 1998), well below most of the developing countries (VID-IIASA 2010, PRB 2009). So far it has not recovered to the 1989 level even after 20 years since the beginning of the transition; this is also the case in Belarus, Moldova and Ukraine.

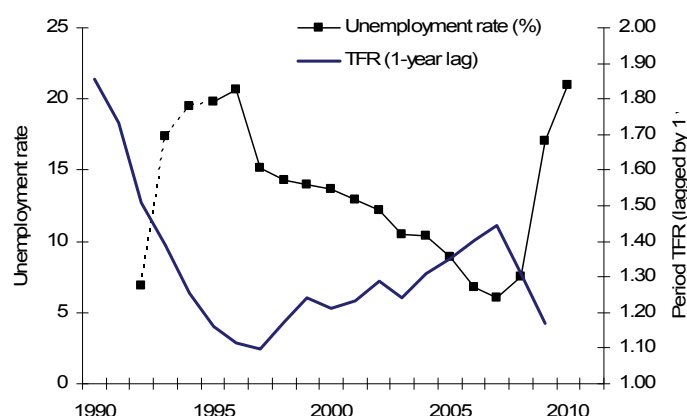
Such a massive deterioration of living conditions could not leave fertility unaffected. Macura (2000) argued that one of the main reasons of fertility decline was the retrenchment of the state support in the 1990s, which has made child-raising less attractive. Other researchers emphasised the effects of income insecurity (Ranjan 1999), and anomie as the key drivers of fertility decline and postponement (Philipov 2003). Perelli-Harris (2008: 1163) noted that uncer-

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<sup>18</sup> In Ukraine, the second largest European country with a population over 50 million during the 1990s, the fall was dramatic: After an almost one decade of transformation in 1999, the GDP level fell by 62%, the average real wage shrank by 52% in comparison with 1989 and the Gini coefficient of the distribution of earnings has jumped from 0.24 to a highly unequal values of 0.45 (Unicef 2006, Perelli-Harris 2008).

tainty and anomie, combined with an aspiration to have “high quality” children may explain the observed spread of one-child families in Ukraine, because people “feel that they have lost control over their environment.” Individual- and aggregate-level studies for selected countries produced a mixed evidence on the effects of unemployment and uncertainty on fertility (e.g., Kharkova and Andreev 2000, Kohler and Kohler 2002, Gerber and Cottrell 2006, Aassve et al. 2006, Kreyenfeld 2010). This does not mean that economic conditions had a minor influence only, but rather that other factors were important as well and that the fertility reaction of different social groups to the new economic environment varied greatly (Aassve et al. 2006, Kreyenfeld 2010). Overall, period fertility trends in Central and Eastern Europe show – as in most other developed countries – a pro-cyclical trend, rising with economic recovery and declining unemployment, and falling during economic recessions (Sobotka et al. 2010). Not all post-communist countries fall neatly into this pattern, but some show a very close correlation. In Latvia, which was hardly hit by the recent recession, trends in fertility show a mirror image to unemployment trends since the early 1990s, with a time lag of 1-2 years (Figure 15). It is important to note, however, that it is almost impossible to separate the ‘crisis’ effects in the 1990s from the fertility response to the lasting changes in the economy, which have brought many aspects typical of market economies even during the prosperous times, such as increased economic uncertainty in young adulthood.

Figure 15: Unemployment Rate and Period TFR in Latvia, 1992-2010



Sources: Eurostat 2011, Council of Europe 2006, Unicef 2006, Statistics Latvia 2011.

Notes: Data on unemployment in 1996-2010 are based on the Labour Force Surveys, while the data for 1992-95 are rough estimates, based on the official records on unemployment multiplied by three in order to reflect the difference between the official and the survey data, as reported first in 1996. The period TFR for 2010 was estimated from the number of live births in January-November 2010.

*Changes in Family Values and Preferences and the  
'second demographic transition'*

Although the interconnected changes in family behaviour have progressed with a different speed across Central and Eastern Europe, this family transformation has all the signs of the 'second demographic transition' that started several decades earlier in Northern and Western Europe (Lesthaeghe 1995, Liefbroer and Fokkema 2008, Lesthaeghe 2010). Long-lasting changes in both family-related values and behaviour in CEE were reinforcing each other (Sobotka 2008).<sup>19</sup> As was the case in the 'Western' countries, there was a consistent relationship between changes in family behaviour and value orientations in Central and Eastern Europe (e.g., Lesthaeghe and Surkyn 2002). Countries that have progressed most in the package of characteristic changes are also those that exhibit most clearly values and attitudes typical of the transition. Moreover, the end of the economic crisis and an improvement in living conditions beginning in the mid- to late-1990s did not bring any signs of restoration of the previous pattern of family behaviour. To the contrary, the trend towards delayed family formation, decline in marriage, and the rise in cohabitation continued (e.g., Sobotka et al. 2003, Zakharov 2008, Gerber and Berman 2010).

It remains puzzling to some observers, however, how could the shifts in values and attitudes towards the acceptance of non-traditional family behaviours, which were typical of affluent societies, take place in countries that have often been severely affected by economic and political turmoil. This issue requires a more detailed discussion (see Sobotka 2008), but two observations can be highlighted:

- Most of the state-socialist countries of Europe had acquired features that were potentially conducive to the subsequent family changes: secular and pragmatic value orientation (with some more traditionalistic and religious exceptions, especially Lithuania and Poland), but also some attitudes and behaviours closely associated with the transition in the West, especially the high acceptance and frequency of abortion and divorce, and often also of premarital sex.
- Some of the changes in behaviour after 1990, especially the retreat of marriage, started among the disadvantaged and low-educated segments of the population, arguably as a reaction to economic uncertainty. However, these unwilling 'trendsetters' might have made such behaviour not only more

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<sup>19</sup> Repeated surveys on attitudes towards marriage and family in the Czech Republic nicely illustrate this parallel change in family values and behaviour. In 1994, 71% of the respondents agreed with the statement that the people who want to have children should marry first. This proportion fell to 58% in 2002 and 40% in 2010 (Chaloupková and Šalamounová 2004 and SOU 2010), while, in parallel, the share of births within marriage fell from 85% in 1994 to 75% in 2002 and 61% in 2010.

common, but also more acceptable for others social groups, which started adopting it later.

Some countries reached an advanced stage in the changes in family behaviour and values around 2005 (the Czech Republic, East Germany, and Slovenia), while other countries still scored low on both components (especially Eastern Europe, Poland, and Romania; see Sobotka 2008, Figure 4). The diversity within post-communist countries is now larger than in any other part of Europe. But some of the previous features still characterise much of the region: very positive attitudes to parenthood, more traditional vision of gender roles division (except East Germany and Slovenia), and rather negative attitudes to voluntary childlessness contrast with the values embraced in many Western European countries, and partly also with the actual pattern of low fertility and rather high female employment in the East (Liefbroer and Fokkema 2008, Sobotka and Testa 2008).<sup>20</sup>

The roots of the ongoing second demographic transition lie, according to van de Kaa (1996: 426) in the “overwhelming preoccupation with self-fulfilment, personal freedom of choice, personal development and lifestyle, and emancipation.” This view is consistent with the fact that individual freedom, in all its dimensions, increased massively after the political regime change towards democracy; only in a few countries, such as Belarus, was the expansion of democratic freedoms rather limited over the 1990s. However, an alternative view, expressed by Thornton and Philipov (2009), sees the observed ideational and behavioural changes mostly as an outcome of ‘developmental idealism’, i.e., embracing values, living standards, and institutions from the ‘West’ in a belief that this may lead to a rapid economic progress and eventually a convergence to ‘Western’ living standards and economic effectiveness.

#### *The ‘postponement transition’*

Another explanation of family change, which is in fact compatible with both the ‘second demographic transition’ view as well as the ‘economic uncertainty’ perspective emphasises the role of the changing timing of childbearing. Kohler, Billari and Ortega (2002) showed that the developed countries have been un-

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<sup>20</sup> Remarkably, East German women still differ from their West German counterparts in their higher valuation of parenthood and, correspondingly, earlier entry into motherhood and much lower childlessness rates, despite living in economically more unstable region. Among the cohorts born in 1964-68, 11% of East German women, but twice many, 22%, of West German women still remained childless in 2008 (Statistisches Bundesamt 2009). Bernardi et al. (2008) suggest that East and West Germans have adopted different life strategies, where West Germans pursue more normatively sequenced pathway, based on attaining job security first, whereas East Germans pursue their parenthood plans in parallel, and often independently of their labour market situation.

dergoing a ‘postponement transition’, i.e., a shift from an early to a late pattern of first birth. This constitutes in their view a rational response to increased economic uncertainty in young adulthood (see also Mills et al. 2005), and the accompanying expansion of higher education. This shift is further sustained by social influences, as the innovators adopting new behaviour (late childbearing) cause an erosion of the previous social norms of earlier birth timing and become agents in the dissemination of new timing norms, which in turn influence the behaviour of others. Many factors influencing fertility behaviour, discussed in the previous parts of this article, may fit well the ‘postponement transition’ view. However, several important features make the ‘postponement transition’ view distinct from other perspectives (see Kohler et al. 2002 for more details):

- While the ‘second demographic transition view’ emphasises the key role of fertility postponement as a behavioural manifestation of new family values, the ‘postponement transition view’ sees the postponement mostly as a rational response to the economic and structural changes in the society. In that view, changes in norms or values are seen as ‘by-products’ rather than ‘drivers’ of the structural changes in a society.
- The postponement transition perspective emphasises the internal dynamics of the postponement process: once initiated, it progresses for a long period of time, typically several decades, even in the countries with very different socioeconomic contexts (see also Goldstein et al. 2009).
- Postponement transition also serves as an important ‘determinant’ of low period fertility rates: When childbearing occurs at ever higher ages, period fertility rates are negatively affected by this shift (‘tempo effect’) and may therefore temporarily decline to very low levels (see also Section 3.2).
- In contrast, cohort fertility rates are unaffected by the tempo effect. However, cohort fertility may fall as a consequence of delaying childbearing, either due to infertility at higher ages or because some couples get accustomed to their childless status or do not find a suitable opportunity to have a child later in life.

After 1990 the ‘postponement’ took off with a high intensity in Central Europe, especially in the Czech Republic, East Germany, and Slovenia. Consequently, a large portion of the observed period fertility declines (Figure 6 above) can be attributed to the tempo effect. In particular, the phenomenon of the ‘lowest-low’ fertility rates in Central and Eastern Europe, illustrated in Figure 7 above, was caused by such tempo distortions (Bongaarts 2002, Sobotka 2004b, Goldstein et al. 2009). Without the changes in fertility timing, period fertility rates would remain higher, typically at or above 1.5.

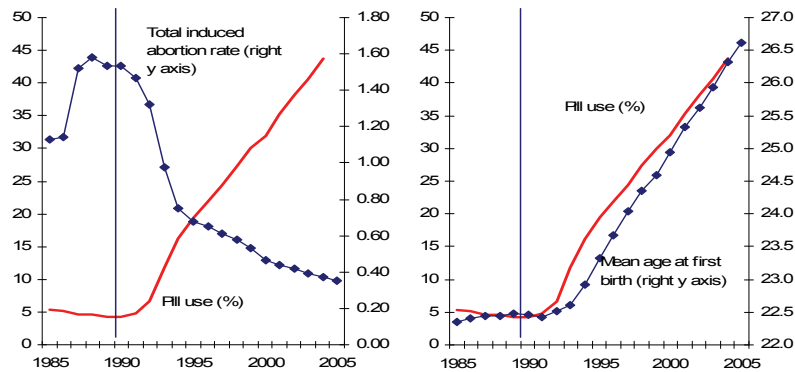
#### *Contraceptive and Sexual ‘revolutions’*

A stealthy liberalisation of sexual morals and behaviour started in Central and Eastern Europe well before 1990, despite the limited spread of modern contraception. After 1990 Central and Eastern Europe has experienced a full-blown

sexual and contraceptive revolution, bringing a boom of information and messages on contraception, sex, and pornography (David 1999, Sobotka 2008). The acceptance of sex prior to marriage and outside marriage increased as did the actual incidence of premarital sex in the more traditional countries where it has not been as common previously, such as in Moldova, Romania, and Ukraine (CDC 2003, Sobotka 2008, Bajos et al. 2003). The knowledge and availability of modern contraception increased sharply, reducing the initially huge reliance on induced abortion as a widespread method of fertility regulation.

Once again, regional differences are enormous. In Eastern Germany, Hungary, and Slovenia modern contraception, including the pill, was widely disseminated already in the 1960s-1970s, while in other countries the pill use was limited and the only broadly available modern methods were condoms and intrauterine devices (IUD). The shift after 1990 was not unidirectional either: conservative political forces in Poland have enacted an almost total ban of abortion since 1993 (Kulczycki 1995), and sex education remains very limited there. A similar attempt to ban abortion has been under consideration in Lithuania in 2008. In Eastern Europe, knowledge of contraception is better than in the past, but high cost of oral contraception and other factors limit its spread and many women continue relying on rather ineffective withdrawal with an abortion as a back-up solution. In 1999, around one third of women of reproductive age in Romania and Ukraine still relied on traditional contraceptive methods (withdrawal and periodic abstinence); whereas in Russia their share remained stable at around 20% between 1994 and 2003 (CDC 2003, Perlman and McKee 2009). In countries where modern contraceptive use increased rapidly, it helped fostering four sets of behavioural changes discussed above. First, it reduced the rates of unwanted and unplanned pregnancies and, in turn, of the number of births and fertility rates, which were previously boosted by undesired pregnancies. Second, it has helped to achieve rapid reductions in abortion rates at the time of declining fertility rates. Third, it greatly facilitated the progression of the 'postponement transition'. Given that the median age at first sexual intercourse among women ranges in European countries between 16 and 19 years (Kontula 2003: Figure 1) and first birth typically occurs by about ten years later, reliable contraception, especially the pill, is paramount to such a high degree of control over pregnancy. Fourth, the spread of modern contraception, has helped to separate sex, procreation, and marriage, and arguably facilitated new norms and values regarding family behaviour (van de Kaa 1994). In Central Europe, the most rapid expansion in the pill use took place in the Czech Republic between 1990 and 2004, when the share of women aged 15-49 with prescribed oral contraception jumped from 4% to 44% (Sobotka et al. 2008). As Figure 16 shows, this trend was very tightly correlated with plummeting induced abortion rates as well as with an intensive postponement of first births.

Figure 16: The Share of Women of Fertile Age Using Contraceptive Pill (in %), Total Induced Abortion Rate, and the Mean Age at First Birth Among Czech Women, 1985-2005



Sources: UZIS (2007) for the pill use, vital statistics data provided from the Czech Statistical Office.

Notes: Pill use represents the percentage of women aged 15-49 with medically prescribed oral contraception.

#### 4.3 “Our nation is dying”: Discourses on Fertility Change and Family Policies

Until the 1980s discourses on population-related issues were limited in scope, at best relegated to specialist publications with limited circulation. Mostly, official views of the government, Communist party, or selected experts were aired. Since the 1960s public authorities increasingly voiced concerns about low birth rates and embraced pronatalist agenda, which was partly motivated by the looming shortages of labour supply, but also by the fears of future depopulation as fertility rates in many countries fell below the replacement level (David 1999, see also Section 2.1 above). The population discourses have grown more colourful after 1990, but a fine thread connecting them still often lies in the widely shared perception of the 1990s fertility decline as a very negative phenomenon and the fears of an accelerated population decline and ageing. Such fears have also been sparked by the actual experience of depopulation that started affecting most post-communist countries by the late 1990s, fuelled not only by rapid fertility declines, but also by emigration and worsening mortality, especially in Eastern and south-eastern Europe as well as Baltic

states.<sup>21</sup> Thus, low fertility has again often become considered an issue of national importance, with new family policies partly motivated by these concerns, especially after 2000. As the 2009 UN Population Policies Survey shows, all the governments in the region have embraced the view that the fertility level in their country is low and their policy is to raise it (UN 2010).<sup>22</sup>

The actual government responses to low fertility vary widely, however, dictated not only by the degree of its perceived importance, but also by available resources. In Russia, by then president V. Putin has made – with a somewhat authoritarian approach – the issue of low fertility a top priority in his 2006 speech to the Parliament, calling Russia’s demographic situation “the most acute problem facing our country today” (PDR 2006) and proposing a set of measures to boost birth rates, which were duly approved by the parliament. A less pronatalist approach has been adopted by the Bulgarian government which approved in 2006 a broad “Demographic Strategy” for the period through 2020 that has, among its many goals, establishing conditions conducive to childbearing, improving reproductive health, improving education, and supporting equal opportunities of different social groups.<sup>23</sup>

The official pronatalism usually remains ‘light’ in the sense of working with incentives for childbearing, including improvements in the financial situation of the families, or supporting easier combination of work and family life, but avoiding coercive measures. More on the fringe, three new streams of discourses have emerged since the early 1990s: the conservative/traditionalistic/patriarchal discourse, the nationalistic discourse, and the ‘gender equality’ discourse. The *conservative discourse* emphasises traditional views on gender role division, sees women’s main role in motherhood, promotes marriage and opposes abortion, homosexuality, sex education, and unmarried living arrangements. This view, is not only pronatalistic, but also in opposition to the ongoing family changes symptomatic of the ‘second demographic transition’ and is usually linked to religious organisations. It is most influential in the more religious predominantly Catholic countries, especially Lithuania, Poland, and Slovakia, as well as in some Christian Orthodox countries, including Russia. Rather conservative views about women’s family roles were also behind the extensions of parental leave up to 3-4 years in a number of countries during

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<sup>21</sup> In Hungary, long-term population decline set in as early as in 1980, but the worst-hit were Bulgaria, East Germany, and Ukraine as well as the three Baltic countries, which lost 10%-16% of their 1990 population size between 1990 and 2010 (Eurostat 2010, Human Mortality Database 2010, Council of Europe 2006).

<sup>22</sup> I have considered 18 countries, specifically, all the countries listed in Table 2 above (including whole Germany instead of East Germany) plus Montenegro and Serbia. Among the 16 countries also included in the 1996 survey, 6 governments considered at that time their fertility as satisfactory (or too high, in the case of Macedonia) and 6 governments did not have a policy to raise fertility.

<sup>23</sup> See <[http://www.mlsp.government.bg/bg/docs/demography/Dem.%20Strategy\\_ENG.pdf](http://www.mlsp.government.bg/bg/docs/demography/Dem.%20Strategy_ENG.pdf)>.

the 1990s, which occurred in parallel with the decline of public childcare facilities for children below age 3 (e.g. Kispester 2009 for Hungary). The *nationalistic discourse* is linked to xenophobic, racist, and nationalistic groups and political parties, and, predictably, espouses a view that the national majority is 'dying out', whereas other groups, like Roma, other ethnic minorities, and migrants, are often perceived as a threat. These views have risen in prominence in with the election successes of nationalistic political parties. For instance, in Bulgaria, a nationalistic political party 'Ataka,' founded in 2005, appeals to the fears that Bulgarian ethnic minority may be 'overrun' by Muslim or Roma minorities due to its comparatively low birth rate (Ghodsee 2011). Finally, the *gender equality* discourse, often supported by feminist groups, is not concerned much by the low birth rates, but rather by the prevailing norms and institutionalised practices that support traditional gender role division and patriarchal family. Nevertheless, equal opportunities for women, especially in the domain of work opportunities, work flexibility and work-family combination as well as a higher involvement of men in childrearing, are seen as a potentially stimulating factor for fertility. These views receive a welcome boost from the European Union, which has promotion of equal opportunities for women and support of female labour participation high on its political agenda.

## 5. Discussion and Future Outlook

The 'Eastern European reproductive pattern' that crystallised after the World War II and prevailed between the 1960s and the early 1990s has given way to a much more diverse pattern of reproductive behaviour, marked by later childbearing and partnership formation, lower fertility rates, the retreat of marriage and the rise of extramarital births, as well as a higher frequency of childlessness and one-child families. Policies and institutions that supported the pattern of an early and almost universal marriage and childbearing have mostly been abandoned or lost their influence. Period fertility rates have fallen to very low levels across the whole region of post-communist Europe during the 1990s, but later recovered somewhat due to a combination of declining tempo effect, good economic conditions prior to the recent recession, and policies supporting families with children. However, the whole region still shares a low level of period fertility which puts it closer to Southern Europe or German-speaking countries than to Western or Northern Europe. New family-related values and behaviours spread rapidly. While in most countries marriage remains a widely aspired long-term goal, the rapid spread of cohabitation and the retreat of marriage from the lives of younger people indicate that Central and Eastern Europe has witnessed the 'big family transformation' that is a key part of the second demographic transition.

Partly related, the 'postponement transition' view has emerged as one of the key concepts for describing and explaining recent trends in fertility rates. The

postponement of leaving parental home, partnership formation and parenthood, can be seen as a rational reaction to new social and economic conditions, marked by competition, expansion of higher education, and many new economic and leisure opportunities, but also by elevated social status differences, higher inequality, and considerable degree of economic uncertainty in young adulthood.

The new pattern of reproductive and family behaviour is strongly differentiated between countries and between social groups. At a country level, two broader pathways of the seemingly rather uniform fertility decline of the 1990s can be distinguished. First, the 'crisis' pathway, was manifested by a fertility decline with only a limited first birth postponement in countries experiencing the most severe slump in real wages, such as Lithuania, Moldova, Russia, and Ukraine. Paradoxically, poor economic prospects, uncertainty, and low level of social security appear to have contributed to the preservation of an early childbearing pattern rather than stimulate its postponement (Sobotka 2003b, Billingsley 2010). The broad failure of post-communist transition to positively transform the lives of people in post-Soviet Eastern Europe and to a smaller extent in Bulgaria and Romania was manifested by widespread feelings of low life satisfaction and having little control over the way one's life turns.<sup>24</sup> Second, the 'postponement' pathway was closely associated with more successful economic and social development in the 1990s. Within this pathway, typical of Central Europe, period fertility decline was driven more by the postponement of childbearing than by a real shift to lower fertility levels. This division is a gross simplification, but it indicates that especially in the latter group of countries fertility change was driven more by the new options, values, constraints and opportunities – often similar to those experienced by younger people in Western Europe – rather than by the temporary economic crisis.

Among the few features shared between most countries of Central and Eastern Europe that remain from the pre-1990s era is the high value placed on parenthood, often combined with traditional gender role attitudes (except East Germany and Slovenia) that have not been altered by the high rates of female labour force participation (Schnepf 2005). These attitudes are also intertwined with parental leave policies favouring the 'male breadwinner model,' a long retreat of parents (by and large women) from the labour force and little developed infrastructure easing the work-family balance, such as part-time work

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<sup>24</sup> In the 1999-2000 wave of the European Values Study, Belarus, Latvia, Russia, and Ukraine had the lowest score on the question much freedom of choice and control respondents feel to have over the way their life turns out. Respondents in Belarus, Russia, and Ukraine were also the least satisfied with their lives, with a satisfaction score below 5 on a 1 to 10 scale (as compared to the European average of 6.7), closely traced by Bulgaria, Romania, Latvia, and Lithuania (Halman 2001: 45-46, Tables 9 and 10). Easterlin (2008: 20) notes that rising social and income inequality was an important factor: "economic circumstances trumped political in their impact on subjective well-being."

availability, childcare for children below age 3, or flexible working hours. This signals an incomplete 'gender revolution' and constitutes a possible trap for fertility decisions. As Esping-Andersen (2009: 80-81) argued, women's high education, increased career orientation and generally higher equality have not been met with adequate family policies:

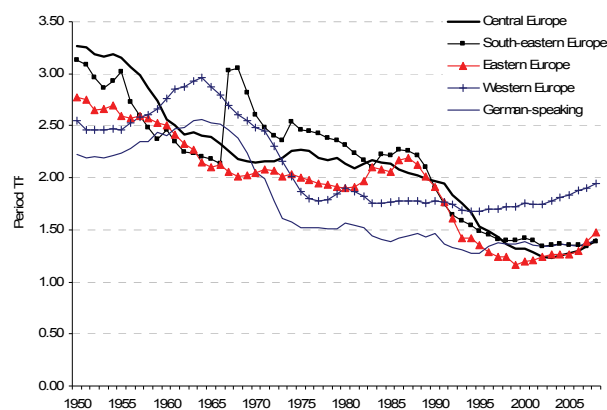
A paradox of our times is that familialistic social policy is an anathema to family formation. (...) Failure to reconcile motherhood and careers will for citizens produce a trade-off between having children, on one hand, and, pursuing employment, autonomy, and increased household income, on the other hand.

In the context of Central and Eastern Europe this trade-off has led to a rapid rise of one-child families as well as to an increase in 'reproductive polarisation' by social status.

After two decades of intensive changes, reproductive behaviour in CEE is still in flux. So far, the extreme low fertility rates of the late 1990s have not been translated into similarly low cohort fertility rates. Women born in 1968, who were in their prime reproductive years in the mid-1990s, had a completed fertility between 1.6 (Russia) and 2.0 (Slovakia) children per woman. Completed fertility will be somewhat lower among the 1970s cohorts, as the ongoing slight rise in childlessness and a faster increase in the share of women with one child are likely to continue. The fertility 'recuperation' after age 30 has started rather recently and will be affected by a number of factors, including gender equality, policies supporting work-family combination, as well as labour market uncertainty and economic development (Adsera 2005, Lesthaeghe 2010, Luci and Thévenon 2010). In the nearest future, economic recession and its aftershocks, especially persistent high unemployment and government cuts on family-related social spending, are likely to keep a downward pressure on fertility and slow-down or reverse the observed recent rise in period fertility rates (Sobotka et al. 2010).

## Appendix

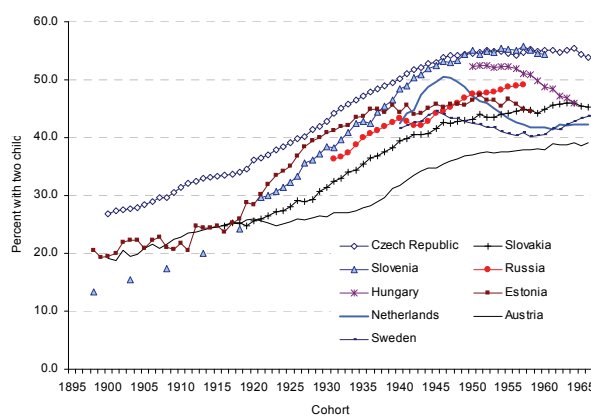
Figure A1: Period Total Fertility Rate in the Three Larger Regions of Central & Eastern Europe as Compared to Western Europe and the Three German-Speaking Countries of Central Europe, 1950-2008



Sources: Council of Europe 2006, Eurostat 2010, own computations from the national data sources.

Notes: Regional means are computed as averages for all countries in a given region, weighted by their population size in a given year. Regions shown in the figure are listed below Figure 6.

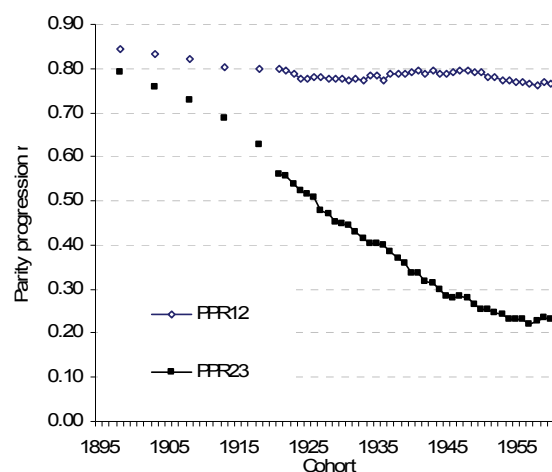
Figure A2: Share of Women with Two Children (in %) Among the Cohorts Born in 1898-1965; Nine European Countries



Sources: Human Fertility Database 2010 (including country-specific input data from the population censuses), Sobotka et al. 2008, HCSO 2009, and own computations from the national data sources.

Notes: More details about data sources for individual countries available by the author upon request

Figure A3: Parity Progression Ratios to the Second and Third Birth, Slovenia,  
Women Born 1898-1960



Sources: Input data in the Human Fertility Database 2010: Population census data from 1971 (cohorts born before 1920) and 2002 (cohorts born in 1921-1960). Data for the cohorts born through 1920 correspond to 5-year cohorts with a mid-point in the cohort shown.

Table A1: Parity Progression Ratios to the Second and Third Birth,  
Women Born in or Around 1955, Selected Countries of Europe

	PPR12	PPR23
Central & Eastern Europe		
Slovenia	0.770	0.233
East Germany	0.710	0.240
Hungary	0.773	0.269
Russia	0.692	0.271
Czech Republic	0.835	0.303
Slovakia	0.874	0.437
North-western Europe		
West Germany	0.713	0.340
The Netherlands	0.838	0.380
Austria	0.728	0.390
Sweden	0.820	0.426

Sources: See Figure A2 above.

Notes: Data ranked by the third birth progression rate within a given broad region East and West Germany: cohorts 1954-58.

## References

- Aassve, A., F. C. Billari, and Z. Spéder. 2006. "Societal transition, policy changes and family formation: Evidence from Hungary." *European Journal of Population* 22 (2): 127-152.
- Adsera, A. 2005. "Vanishing children: From high unemployment to low fertility in developed countries." *American Economic Review, Papers and Proceedings* 95 (2): 189-193.
- Andorka, R. 1978. *Determinants of fertility in advanced societies*. London: Methuen & Co.
- Avdeev A., and A. Monnier. 1995. "A survey of modern Russian fertility." *Population: An English selection* 7: 1-38.
- Avdeev A., A. Blum, and I. Troitskaya 1995. The history of abortion statistics in Russia and the USSR from 1900 to 1991. *Population: An English Selection* 7: 39-66.
- Baban, A. 1999. Romania. In *From abortion to contraception. A resource to public policies and reproductive behavior in Central and Eastern Europe from 1917 to the present*, ed. H. P. David, 191-221. Westport: Greenwood Press.
- Bajos, N., A. Guillaume, and O. Kontula, eds. 2003. *Reproductive health behaviour of young Europeans*. Vol. 1. Population Studies No. 42, Strasbourg: Council of Europe.
- Bauman, Z. 1992. *Intimations of postmodernity*. London: Sage Publications.
- Bernardi, L., A. Klärner, and H. von der Lippe. 2008. "Job Insecurity and the Timing of Parenthood: A Comparison between Eastern and Western Germany." *European Journal of Population* 24: 287-313.
- Billari, F. C., D. Philipov, and P. Baizán. 2001. "Leaving home in Europe: The experience of cohorts born around 1960." *International Journal of Population Geography* 7: 339-356.
- Billingsley, S. 2010. "The post-communist fertility puzzle." *Population Research and Policy Review* 29 (2): 193-231.
- Bongaarts, J. 2002. "The end of the fertility transition in the developed world." *Population and Development Review* 28 (3): 419-443.
- Bongaarts, J., and G. Feeney. 1998. "On the quantum and tempo of fertility." *Population and Development Review* 24 (2): 271-291.
- Caldwell, J. C. 2004. "Social upheaval and fertility decline." *Journal of Family History* 29 (4): 382-406.
- CDC. 2003. *Reproductive, Maternal and Child Health in Eastern Europe and Eurasia: A Comparative Report*. U.S. Department of Health and Human Services for CDC, Atlanta, GA and ORC Macro, Measure DHS+, Calverton, Maryland, USA.
- Chaloupková, J., and P. Šalamounová. 2004. Postoje k manželství, rodičovství a k rolím v rodině v České republice a v Evropě. (Attitudes towards marriage, parenthood and family roles in the Czech Republic and in Europe). Sociologické studie 04/7, Institute of Sociology of the Academy of Sciences of the Czech Republic, Prague.
- Chorvát, I. 2007. Family and women in Central and Eastern Europe: The Significance of Traditional Roles after Socialism. In *Theorising Social Change in Post-*

- Soviet Countries: Critical Approaches*, ed. B. Sanghera, S. Amsler, and T. Yarkovapp, 85-97. Oxford: Lang.
- Conrad C., M. Lechner, and W. Werner. 1996. "East German fertility after unification: Crisis or adaptation?" *Population and Development Review* 22 (2): 331-358.
- Council of Europe. 2006. *Recent demographic developments in Europe 2005*. Strasbourg: Council of Europe Publishing.
- Council of Europe. 2002. *Recent demographic developments in Europe 2002*. Strasbourg: Council of Europe Publishing.
- da Vanzo, J. and G. Farnsworth. 1996. *Russia's Demographic "Crisis"*. RAND Corporation, Santa Monica, CA. Accessed at <[http://www.rand.org/pubs/conf\\_proceedings/CF124](http://www.rand.org/pubs/conf_proceedings/CF124)>.
- David, H. P., ed. 1999. *From abortion to contraception. A resource to public policies and reproductive behavior in Central and Eastern Europe from 1917 to the present*. Westport, Connecticut, Greenwood Press.
- Davies, N. 1996. *Europe: a history*. Oxford University Press, Oxford.
- Easterlin, R. A. 2008. Lost in transition: life satisfaction on the road to capitalism. *IZA Discussion Paper* No. 3409, Institute for the Study of Labor, Bonn.
- Eberstadt, N. 2010. *Russia's Peacetime Demographic Crisis: Dimensions, Causes, Implications*. NBR Project Report, the National Bureau of Asian Research, Seattle, WA, USA.
- Einhorn, B. 1991. "Where have all the women gone? Women & the women's movement in East/Central Europe." *Feminist Review* No. 39: 16-36.
- Esping-Andersen, G. 2009. *The Incomplete Revolution. Adapting to Women's new Roles*. Cambridge, Polity Press.
- Eurostat. 2010. *Data on live births, fertility rates and population size*, accessed in April and December 2010 at Eurostat's online Statistics Database, <<http://epp.eurostat.ec.europa.eu>>.
- Eurostat. 2011. *Data on unemployment in Latvia*, accessed in January 2011 at Eurostat's online Statistics Database.
- Eurostat. 2011a. *Data on population by age, sex and marital status*, on January 1, 2008 accessed in January 2011 at Eurostat's online Statistics Database.
- Festy, P. 1979. *La fécondité des pays occidentaux de 1870 à 1970*. Travaux et Documents No. 85. Paris: INED-PUF.
- Frejka, T. 1983. "Induced abortion and fertility: A quarter century of experience in Eastern Europe." *Population and Development Review* 9 (3): 494-520.
- Frejka, T. 2008. "Determinants of family formation and childbearing during the societal transition in Central and Eastern Europe." *Demographic Research* 19 (7): 139-170.
- Frejka, T., T. Sobotka, J. Hoem, and L. Toulemon, eds. *Childbearing Trends and Policies in Europe. Demographic Research*, Special collection 7, 19 (3): 1-1178.
- Gerber, T. P., and D. Berman. 2010. "Entry to marriage and cohabitation in Russia, 1985-2000: trends, correlates, and implications for the Second Demographic Transition." *European Journal of Population* 26 (1): 3-31.
- Gerber, T. P., and E. B. Cottrell. 2006. Fertility in Russia, 1985-2001. *Insights from individual fertility histories*. Paper presented at the Annual Meeting of the Population Association of America, Los Angeles, March 2006.
- Ghodsee, K. R. 2011. The political consequences of the below replacement fertility rate in contemporary Bulgaria. Project website accessed 16 January 2011 at:

- <<http://www.bowdoin.edu/faculty/k/kghodsee/nsf-cultural-anthropology-scholars-award.shtml>>.
- Goldstein, J. R., T. Sobotka, and A. Jasilioniene. 2009. "The end of lowest-low fertility?" *Population and Development Review* 35 (4): 663-700.
- Hajnal, J. 1965. European marriage patterns in perspective. In *Population in history*, ed. D. V. Glass, and D. Eversley, 101-143. London.
- Halman, L. 2001. *The European Values Study. A third wave*. Source book of the 1999/2000 European Values Study surveys. WORC, Tilburg University.
- HCSO. 2009. *Data on the parity distribution of the female population of reproductive age on January 1, 2009*. Hungarian Central Statistical Office, Budapest.
- Heitlinger, A. 1976. Pro-natalist population policies in Czechoslovakia. *Population Studies* 30 (1): 123-135.
- Heuveline, P., and J. M. Timberlake. 2004. "The role of cohabitation in family formation: The United States in comparative perspective." *Journal of Marriage and Family* 66: 1214-1230.
- Heyns, B. 2005. "Emerging inequalities in Central and eastern Europe." *Annual Review of Sociology* 31: 163-197.
- Human Fertility Database. 2011. *Period fertility rates, cohort parity distribution and census input data on parity distribution in the Czech Republic, East Germany, Estonia, the Netherlands, Russia, Slovenia, and Slovakia*, accessed in January 2011 from the Human Fertility Database: <<http://www.humanfertility.org>>.
- Human Mortality Database. 2010. *Estimates of the population in East Germany*, accessed in January 2010 from the Human Mortality Database, <<http://www.mortality.org/>>.
- Johnston's archive. 2010. *Historical abortion statistics for Romania*, accessed in December 2010 at <<http://www.johnstonsarchive.net/policy/abortion/ab-romania.html>>.
- Kamarás, F. 1999. Terhességmegszakítások Magyarországon (Induced abortion in Hungary). In *Szerepváltozások. Jelentés a nők és férfiak helyzetéről*, ed. T. Pongrácz, and I. G. Tóth, 190-216. Budapest: TÁRKI. Accessed online at: <<http://www.tarki.hu/adatbank-h/nok/szerepvalt/Kamaras-99.html>>.
- Kantorová, V. 2004. "Education and entry into motherhood: The Czech Republic during the state socialism and the transition period (1970-1997)." *Demographic Research* 10 (13): 245-274.
- Katus, K., A. Puur, A. Pöldma, and L. Sakkeus. 2007. "First union formation in Estonia, Latvia, and Lithuania: Patterns across countries and gender." *Demographic Research* 17, Article 10: 247-300.
- Keil, T. J., and V. Andreescu. 1999. "Fertility policy in Ceausescu's Romania." *Journal of Family History* 24 (4): 478-492.
- Kharkova, T., and E. Andreev. 2000. "Did the economic crisis cause the fertility decline in Russia: Evidence from the 1994 Microcensus." *European Journal of Population* 16 (3): 211-233.
- Kispestér, E. 2009. *Family policy debates in post-state socialist Hungary: from maternalism to gender equality*. Unpublished manuscript available at <[www.quing.eu/files/.../kispeter\\_rev\\_state\\_civil\\_family\\_policies.doc](http://www.quing.eu/files/.../kispeter_rev_state_civil_family_policies.doc)>.
- Kogan, I., and M. Unt. 2005. "Transition from school to work in transition economies." *European Societies* 7 (2): 219-253.

- Kohler, H.-P., F. C. Billari, and J. A. Ortega. 2002. "The emergence of lowest-low fertility in Europe during the 1990s." *Population and Development Review* 28 (4): 641-680.
- Kohler, H.-P., and I. Kohler. 2002. "Fertility decline in Russia in the early and mid 1990s: The role of economic uncertainty and labour market crisis." *European Journal of Population* 18 (3): 233-262.
- Kontula, O. 2003. Trends in teenage sexual behaviour: Pregnancies, sexually transmitted infections and HIV infections in Europe. In *Reproductive health behaviour of young Europeans. Vol. 1.* (Population Studies, No. 42), ed. N. Bajos et al., 77-137. Strasbourg: Council of Europe.
- Kornai, J. 1986. The soft budget constraint. *KYKLOS* 39: 3-30.
- Kostova, D. 2007. "The emergence of cohabitation in a transitional socio-economic context: evidence from Bulgaria and Russia." *Demográfia, English Edition*, 50 (5): 135-162.
- Kotowska, I., and J. Józwiak, eds. *Population of Central and Eastern Europe. Challenges and Opportunities.* Warsaw: Statistical Publishing Establishment.
- Kreyenfeld, M. 2004. "Fertility decisions in the FRG and GDR: an analysis with data from the German fertility and family survey." *Demographic Research, Special Collection 3, Article 11*: 275-318
- Kreyenfeld, M. 2010. "Uncertainties in female employment careers and the postponement of parenthood in Germany." *European Sociological Review* 26 (3): 351-366.
- Kulczycki, A. 1995. "Abortion policy in postcommunist Europe: The conflict in Poland." *Population and Development Review* 21 (3): 471-505.
- League of Nations. 1935-36 to 1942-44. Data on population movement published in the *Statistical Yearbook of the League of Nations*. Various volumes, 1935-36 to 1942-44. Geneva: League of Nations. Accessible at: <<http://digital.library.northwestern.edu/league/stat.html>>.
- Lesthaeghe, R. 1995. The second demographic transition in Western countries: An interpretation. In *Gender and family change in industrialized countries*, ed. K. O. Mason, and A.-M. Jensen, 17-62. Oxford: Clarendon Press.
- Lesthaeghe, R. 2010. "The unfolding story of the Second Demographic Transition." *Population and Development Review* 36 (2): 211-251.
- Lesthaeghe, R., and J. Surkyn. 2002. New forms of household formation in Central and Eastern Europe: Are they related to newly emerging value orientations? In *Economic Survey of Europe 2002/1*, ed. Economic Commission for Europe, United Nations, 197-216. New York and Geneva.
- Levine, P. B., and D. Steiger. 2004. "Abortion policy and fertility outcome: the eastern European experience." *Journal of Law and Economics* 47: 223-243.
- Liefbroer, A. C., and P. Dykstra. 2000. *Levenslopen in verandering. Een studie naar ontwikkelingen in de levenslopen van Nederlanders geboren tussen 1900 en 1970* [Life course in transition: Study on the developments in the life course of the Dutch people born between 1900 and 1970]. Voorstudies en achtergronden, V 107, The Netherlands Scientific Council for Governments Policy (VRR), Den Haag. Accessed at <<http://www.wrr.nl/ne>>.
- Liefbroer, A. C., and T. Fokkema. 2008. Recent developments in demographically relevant attitudes and behaviour: New challenges for a new era? In *Demographic*

- challenges for the 21st Century. A state of art in demography*, ed. J. Surkyn, P. Deboosere, and J. van Bavel, 115-141. Brussels: VUBPRESS.
- Luci, A., and O. Thévenon. 2010. *Does economic development drive the fertility rebound in OECD countries?* Working paper 167-2010, available at <[http://hal.archives-ouvertes.fr/docs/00/52/09/48/PDF/publi\\_pdf1\\_dt\\_167.pdf](http://hal.archives-ouvertes.fr/docs/00/52/09/48/PDF/publi_pdf1_dt_167.pdf)>.
- Macura, M. 2000. Fertility decline in the transition economies, 1989-1998: Economic and social factors revisited". In *Economic Survey of Europe 2000, No. 1*, ed. Economic Commission for Europe, United Nations, 189-205. New York and Geneva.
- Manning, N. 2004. "Diversity and change in pre-accession Central and Eastern Europe since 1989." *Journal of European Social Policy* 14 (3): 211-232.
- Matysiak, A. 2009. "Is Poland really 'immune' to the spread of cohabitation?" *Demographic Research* 21 (8): 215-234.
- McDonald, P. 2008. "Very low fertility. Consequences, causes and policy approaches." *The Japanese Journal of Population* 6 (1): 19-23.
- McLanahan, S. 2004. "Diverging destinies: How children are faring under the second demographic transition?" *Demography* 41 (4): 607-627.
- Meslé, F. 2004. "Mortality in Central and Eastern Europe: Long-term trends and recent upturns." *Demographic Research Special Collection* 2 (3): 45-70.
- Mills, M., and H.-P. Blossfeld, and E. Klijzing. 2005. Becoming an adult in uncertain times. A 14-country comparison of the losers of globalization. In *Globalization, Uncertainty and Youth in Society*, H.-P. Blossfeld, E. Klijzing, M. Mills and K. Kurz, 423-441. London/New York: Routledge.
- Mishtal, J. Z. 2009. "Understanding low fertility in Poland: Demographic consequences of gendered discrimination in employment and postsocialist neoliberal restructuring." *Demographic Research* 21 (20): 599-626.
- Mureşan, C. 2008. "Cohabitation, an alternative for marriage in contemporary Romania: a life table description." *Demográfia* 51 (5), English Edition: 36-65.
- Perelli-Harris, B. 2008. "Ukraine: On the border between old and new in uncertain times." *Demographic Research*, Special Collection 7, 19 (29): 1145-1178.
- Perelli-Harris, B. 2006. "The influence of informal work and subjective well-being on childbearing in post-Soviet Russia." *Population and Development Review* 32 (4): 729-753.
- Perelli-Harris, B. 2005. "The path to lowest-low fertility in Ukraine." *Population Studies* 59 (1): 55-70.
- Perelli-Harris, B., W. Sigle-Rushton, M. Kreyenfeld, T. Lappegård, R. Keizer, and C. Berghammer. 2010. "The educational gradient of childbearing within cohabitation in Europe." *Population and Development Review* 36 (4): 775-801.
- Perlman, F., and M. McKee. 2009. "Trends in family planning in Russia, 1994-2003." *Perspectives on Sexual and Reproductive Health* 41 (1): 40-50.
- Philipov, D. 2003. Fertility in times of discontinuous societal change. *Population of Central and Eastern Europe. Challenges and Opportunities*, ed. I. Kotowska, and J. Jóźwiak, 665-689. Warsaw: Statistical Publishing Establishment.
- Philipov, D., and J. Dorbritz. 2003. "Demographic consequences of economic transition in countries of Central and Eastern Europe." *Population Studies* No. 39. Strasbourg: Council of Europe.

- Philipov, D., Z. Spéder, and F. C. Billari. 2006. "Soon, later, or ever? The impact of anomie and social capital on fertility intentions in Bulgaria (2002) and Hungary (2001)." *Population Studies* 60 (3): 289-308.
- Popov, A. A. 1991. "Family planning and induced abortion in the USSR: basic health and demographic characteristics." *Studies in Family Planning* 22 (6): 368-377.
- PDR. 2006. "Vladimir Putin on raising Russia's birth rate." *Population and Development Review* 32 (2): 385-389.
- PRB. 2009. *2009 World Population Data Sheet*. Population Reference Bureau, Washington. Available at: <<http://www.prb.org/Publications/Datasheets/2009/2009wpds.aspx>>.
- Ranjan, P. 1999. "Fertility behaviour under income uncertainty." *European Journal of Population* 15 (1): 25-43.
- Rendall, M. S., O. Ekert-Jaffé, H. Joshi, K. Lynch, and R. Mougin. 2009. "Universal versus economically polarized change in age at first birth: A French-British comparison." *Population and Development Review* 35 (1): 89-115.
- Rostgaard, T. 2004. Family Support Policy in Central and Eastern Europe – A Decade and a Half of Transition. *Early Childhood and Family Policy Series* No. 8 – 2004. Copenhagen: The Danish National Institute of Social Research.
- Schnepf, S. V. 2005. *Gender equality in Central and Eastern Europe: A comparison of labour market attitudes, educational achievement and poverty between East and West*. Doctoral thesis, School of Business, Economics and Social Sciences, University of Hamburg.
- Sedgh, G., S. K. Henshaw, S. Singh, A. Bankole, and J. Drescher. 2007. "Legal abortion worldwide: incidence and recent trends." *International Family Planning Perspectives* 33 (3): 106-116.
- Serbanescu, F., L. Morris, P. Stupp, and A. Stanescu. 1995. "The impact of recent policy changes on fertility, abortion, and contraceptive use in Romania." *Studies in Family Planning* 26 (2): 76-87.
- Shkolnikov V. M., G. A. Cornia, D. A. Leon, F. Meslé. 1998. "Causes of the Russian Mortality Crisis: Evidence and Interpretations." *World Development* 26 (6): 1995-2011.
- Šiklová, J. 1993. Are women in Central and Eastern Europe conservative? In *Gender Politics and Post-Communism*, ed. N. Funk, and M. Mueller, 74-83. New York: Routledge.
- Sobotka, T. 2002. *Ten years of rapid fertility changes in the European post-communist countries: Evidence and interpretation*. Working paper WP 02-1, Population Research Centre, University of Groningen.
- Sobotka, T. 2003a. Understanding lower and later fertility in Central and Eastern Europe. In *Population of Central and Eastern Europe. Challenges and Opportunities*, ed. I. Kotowska, and J. Jóźwiak, 691-724. Warsaw: Statistical Publishing Establishment.
- Sobotka, T. 2003b. "Re-emerging diversity: Rapid fertility changes in Central and Eastern Europe after the collapse of the communist regimes." *Population-E* 2003, 58 (4-5): 451-486.
- Sobotka, T. 2004a. *Postponement of childbearing and low fertility in Europe*. PhD Thesis, University of Groningen. Amsterdam: Dutch University Press.

- Sobotka, T. 2004b. "Is lowest-low fertility explained by the postponement of child-bearing?" *Population and Development Review* 30 (2): 195-220.
- Sobotka, T. 2008. The diverse faces of the second demographic transition in Europe. Overview Chapter 6 In *Childbearing trends and policies in Europe* (ed. T. Frejka et al.). *Demographic Research*, Special Collection 7, 19(8): 171-224.
- Sobotka, T. and W. Lutz. 2009. Misleading policy messages from the period TFR: should we stop using it? *European Demographic Research Papers* 4. Vienna: Vienna Institute of Demography.
- Sobotka, T. and M. R. Testa. 2008. Attitudes and intentions towards childlessness in Europe. In *People, Population Change and Policies: Lessons from the Population Policy Acceptance Study – Volume 1*, ed. Ch. Höhn, D. Avramov, and I. Kotowska, 177-211. Berlin: Springer.
- Sobotka, T., and L. Toulemon. 2008. "Changing family and partnership behaviour: Common trends and persistent diversity across Europe." *Demographic Research* 19, Article 6: 85-138.
- Sobotka, T., A. Šťastná, K. Zeman, D. Hamplová, and V. Kantorová. 2008. "Czech Republic: A rapid transformation of fertility and family behaviour." *Demographic Research* 19 (14): 403-454.
- Sobotka, T., K. Zeman, and V. Kantorová 2003. "Demographic shifts in the Czech Republic after 1989: A second demographic transition view." *European Journal of Population* 19 (3): 249-277.
- Sobotka, T., V. Skirbekk, and D. Philipov. 2010. Economic recession and fertility in the developed world. A literature review. Research note published by the European Commission. Accessible at: <[ec.europa.eu/social/BlobServlet?docId=4547&langId=en](http://ec.europa.eu/social/BlobServlet?docId=4547&langId=en)>.
- SOU. 2010. "Rodinné hodnoty a postoje k manželství" (Family values and attitudes to marriages). Press release, Institute of Sociology of the Academy of Sciences of the Czech Republic, Prague. Available at: <[http://www.cvvm.cas.cz/upl/zpravy/101080s\\_ov101221.pdf](http://www.cvvm.cas.cz/upl/zpravy/101080s_ov101221.pdf)>.
- Spéder, Z. 2005. "The rise of cohabitation as first union and some neglected factors of recent demographic developments in Hungary." *Demográfia*, English Edition 48: 77-103.
- Šprocha, B., and M. Potančoková. 2010. *Vzdelanie ako diferenčný faktor reprodukčného správania. (Education as a differentiating factor in reproductive behaviour.)* Infostat, VDC, Bratislava. <<http://www.infostat.sk/vdc/pdf/vzdelanie2010.pdf>>.
- Stankuniene, V., and A. Jasilioniene. 2008. "Lithuania: Fertility decline and its determinants." *Demographic Research* 19 (20): 705-741.
- Statistics Latvia. 2011. *Live births and unemployment rates in 2010*, accessed in January 2011 at <<http://www.csb.gov.lv/en/statistikas-temas/population-key-indicators-30624.html>> and <<http://www.csb.gov.lv/en/statistikas-temas/employment-and-unemployment-key-indicators-30679.html>>.
- Statistisches Bundesamt. 2009. *Mikrozensus 2008. Neue Daten zur Kinderlosigkeit in Deutschland. Ergänzende Tabellen zur Pressekonferenz am 29. Juli 2009 in Berlin*. Statistisches Bundesamt, Berlin.
- Stloulkal, L. 1999. Understanding the 'abortion culture' in Central and Eastern Europe. In *From abortion to contraception. A resource to public policies and re-*

- productive behavior in Central and Eastern Europe from 1917 to the present, ed. H. P. David, 23-37. Westport: Greenwood Press.
- Thornton, A., and D. Philipov. 2009. "Sweeping changes in marriage, cohabitation and childbearing in Central and Eastern Europe: new insights from the developmental idealism framework." *European Journal of Population* 25 (2): 123-156.
- Titkow, A. 1999. Poland. In *From abortion to contraception. A resource to public policies and reproductive behavior in Central and Eastern Europe from 1917 to the present*, ed. H. P. David, 165-190. Westport: Greenwood Press.
- UN. 2010. *World Population Policies 2009*. Department of Economic and Social Affairs, Population Division Policies, United Nations, New York.
- Unicef. 2006. Country profiles data, The TransMoNee database. Accessed in 2007.
- Unicef. 2009. *The TransMoNEE database: Data on children in Central and Eastern Europe and the Commonwealth of Independent States*. 2009 edition accessed at: <<http://www.unicef-irc.org/databases/transmonee/>>.
- UZIS. 2007. *Potravy 2006* [Abortions 2006]. Praha: Institute of Health Information and Statistics of the Czech Republic.
- Van Bavel, J. 2010. "Subreplacement fertility in the West before the baby boom. Past and current perspectives." *Population Studies* 64 (1): 1-18.
- Van de Kaa, D. J., 1996. "Anchored narratives: the story and findings of half a century of research into the determinants of fertility." *Population Studies* 50: 389-432.
- Van de Kaa, D. J. 1994. The second demographic transition revisited: Theories and expectations. In *Population and family in the Low Countries 1993: Late fertility and other current issues*, ed. G. Beets et al., 81-126. Berwyn/Amsterdam: Swets and Zeitlinger.
- VDC. 2010. *Populačný vývoj v okresoch Slovenskej republiky 2009* (Population development in the districts of the Slovak Republic). Infostat, VDC, Bratislava. <<http://www.infostat.sk/vdc/pdf/popvyvojokrsy.pdf>>.
- VID-IIASA. 2010. *European demographic data sheet 2010*. Vienna Institute of Demography and IIASA. Accessible at <<http://www.oeaw.ac.at/vid/datasheet/index.html>>.
- Vishnevski, A., ed. 2006. *Demograficheskaya modernizatsia Rossii 1900-2000* [Demographic Modernization of Russia 1900-2000]. Novoe Izdatelstvo, Moscow.
- Witte, J., and G. Wagner. 1995. "Declining fertility in East Germany after unification: A demographic response to socioeconomic change." *Population and Development Review* 21 (2): 387-397.
- Wynnyczuk, V., and R. Uzel. 1999. Czech and Slovak Republic. In *From abortion to contraception. A resource to public policies and reproductive behavior in Central and Eastern Europe from 1917 to the present*, ed. H. P. David, 91-119. Westport: Greenwood Press.
- Zakharov, S. V. 2000. "Fertility trends in Russia and the European newly independent states: Crisis or turning point?" *Population Bulletin of the United Nations*, Special Issue 40/41, 1999: 292-317.
- Zakharov, S. 2008. Russian Federation: From the first to second demographic transition. In *Childbearing trends and policies in Europe*, ed. T. Frejka et al. *Demographic Research*, Special Collection 7, 19 (24): 907-972.