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Editorial note

The Hungarian quarterly journal *Demográfia* has been publishing studies, reviews and analyses on population developments for more than fifty years since its foundation in 1958. Since 2003 a large number of international and Hungarian authors have published in the bi-annual *Demográfia English Edition (DEE)*. From this issue onwards we make some small but important changes to the format, with the aim of increasing the scientific level of papers and widening the thematic scope of the journal.

Firstly, we have broadened the scope of the published articles. Although reports about the Hungarian population remain a clear focus, we also encourage reports and analyses about Central Eastern Europe and beyond. Submissions of comparative articles are highly welcomed.

Secondly, we have introduced a peer review procedure, whereby all articles undergo a peer review process. In addition, a native English-language editor now copy edits and proofreads the articles to improve the consistency and standard of the text.

Thirdly, we have introduced several organisational changes. A new International Editorial Board, consisting of internationally respected scholars of the population and social sciences, contribute to increasing scientific standards, to broadening the themes and regional coverage, and to ensuring a scientifically sound peer review process.

Fourthly, the DEE will be published parallel on-line and in hard copy. On the one side, we will stick to more than fifty years of experience publishing a printed version of DEE, but on the other side we will give open access to newly published articles on the renewed website of the Demographic Research Institute.

Interested scholars should send their papers to the following email address: englishedition@demografia.hu. According to the above-mentioned editorial procedure, the English should be good enough to undergo the peer review process. After acceptance of the article DEE will work with authors through a careful and rounded copy editing process.

Zsolt Spéder (Editor-in-Chief) & Attila Melegh, Lívia Murinkó (Editors)

FERTILITY DEVELOPMENTS IN CENTRAL AND EASTERN EUROPE: THE ROLE OF WORK-FAMILY TENSIONS

ANNA MATYSIAK¹

ABSTRACT: *This paper provides an overview of developments in fertility, family policy models, and intensity of work-family tensions in the CEE region in the 1990s and 2000s. It hypothesises that the intensification of work-family incongruities in the 1990s might have been an important determinant of the decline in fertility seen in post-socialist countries in the 1990s, and that the implementation of reconciliation policies in some of the post-socialist countries in the 2000s might have led to diversity in rates of fertility improvement in the region. It concludes by encouraging more in-depth research on the interrelationships between fertility, women's employment, family policies and social norms regarding women's work in the CEE region, all of which would help verify these hypotheses.*

1 INTRODUCTION

At the end of the 1980s fertility in Central and Eastern European (CEE) countries was still much higher than in Western European countries. This situation changed rapidly in the following decade. While fertility levels remained stable in Western Europe, CEE countries were gradually entering the group of lowest-low fertility countries, with period Total Fertility Rates (TFR) falling below 1.35. Only recently have some improvements in fertility been observed, particularly in Estonia, Bulgaria, Slovenia and Lithuania, where TFR now exceeds 1.5.

The reasons behind fertility decline in CEE countries have been widely discussed in the demographic literature. Two explanations originally predominated the discussion: the first one referred to the effects of the economic crisis of the early 1990s and resulting social anomie (e.g. Billingsley 2010; Macura 2000; Perelli-Harris 2008; Philipov 2003), and the second to the spread of Western values and ideologies related to the second demographic transition (e.g. Kotowska 1999; Lesthaeghe and Surkyn 2002; Sobotka 2008; Sobotka, Zeman and Kantorová 2003). Recent developments in fertility in the CEE region and in-depth analyses of the reasons behind the transformations in

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family-related behaviours indicate another group of factors decisive for family-related behaviours in the region, namely factors related to the “replacement of state socialism regimes with economic and political institutions of contemporary capitalism” (Frejka 2008, 139). As a result of this change, employment was no longer guaranteed, public provision of cheap housing and social services ceased, new opportunities for professional career and self-development emerged, consumer aspirations exploded and the importance of education for earning an income and achieving personal success increased substantially. At the top of these developments, governments in many CEE countries started to withdraw public support from working parents. Altogether, these changes led to a rapid increase in tensions between work and family life.

The authors of the articles published in the special volume of *Demographic Research on childbearing trends and policies in Europe* provided an extended discussion of the role of various socio-economic factors on changes to family-related behaviours in the CEE region (e.g. see Frejka et al. 2008). Nevertheless, there have been very few studies so far that have attempted to obtain deeper insights into one selected group of factors and their possible impact on fertility in CEE countries. This paper aims to make up for this shortcoming, by paying closer attention to those factors that led to an intensification of the conflict between work and family life. This group of factors requires special attention for at least two reasons. First, tensions between work and family have been considered one of the most important causes of persistently low fertility in many Western European countries. It has been demonstrated widely in the empirical literature that Western economies displaying weaker conflict between work and family are characterised by higher levels of fertility (Ahn and Mira 2002; Engelhardt, Kogel and Prskawetz 2004; Kögel 2004; Rindfuss, Guzzo and Morgan 2003) and that women’s employment, or an increase in women’s wages, are more likely to depress fertility in countries characterised by poor public support for working parents (Andersson, Kreyenfeld and Mika 2009; Matysiak and Vignoli 2008). Recent studies on Western Europe have gone further and shown that improvements in the provision of childcare may lead to substantial increases in childbearing rates (Baizan 2009; Rindfuss et al. 2010). Second, as will be shown below, intensification of the tensions between paid work and family in the CEE region took place in a very specific group of countries and at a very particular point in time. Namely, CEE countries have long been characterised by relatively high women’s economic activity. Consequently, for women born in the 1970s and 1980s, participating in the labour market was a natural path to follow after graduation, a path that had been followed by their mothers in the past. The intensification of the conflict between family and paid work therefore hit women who were prepared to participate actively in the labour market. Furthermore, it occurred exactly when women’s involvement in paid employment was needed most, given the

increased importance of assuring the economic necessities for households and increasing employment instability among men.

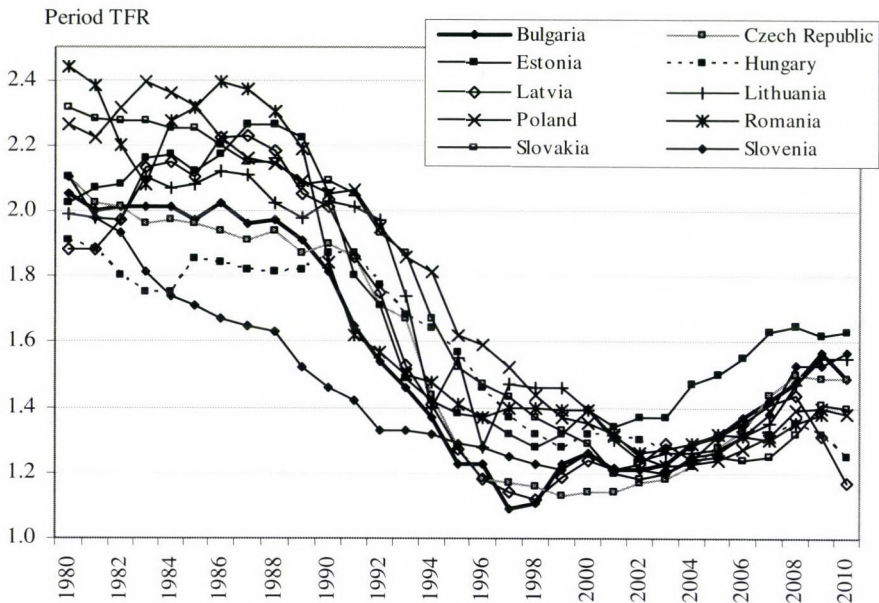
Whereas empirical research on the interrelationship between fertility, women's paid work and family policies in Western economies has been conducted on a large scale, there have not been many studies in these fields on CEE countries. In general, post-socialist countries were often classified as a single group of low fertility countries characterised in the past by women's high labour supply and relatively good conditions for work and family reconciliation, which deteriorated after the collapse of the state socialism (Muszyńska 2007; Pascall and Manning 2000). Recently, however, clear differences in fertility, women's labour force participation, and family policy models started to emerge in this part of Europe. This study therefore aims to gain deeper insights into developments in fertility and work-family tensions in order to highlight the most important trends of the 1990s and 2000s, identify major cross-country differences, formulate hypotheses and encourage further research on the topic in the region. Our considerations are limited to those CEE countries that entered the EU in the 2000s. This decision was unfortunately necessary due to the paucity of essential data available in international databases.

The paper is organised as follows. First, we provide a brief description of fertility developments in the CEE region. Second, we give some background information on the reasons behind increased pressure to participate in the labour market and earn an independent living and briefly discuss the situation in CEE region labour markets. Subsequently, we move on to describing the situation of women in CEE labour markets, sources of tensions arising between work and family, and women's responses to this new situation. Finally, we discuss the most recent developments in family policies, fertility and women's employment, pointing out emerging diversities in the region.

2 FERTILITY DEVELOPMENTS IN CEE COUNTRIES

At the end of the 1980s fertility in CEE countries was still much higher than in the West of Europe. In 1989 the average period TFR in the ten CEE countries that entered the EU in the 2000s amounted to 1.97, whereas in the EU15 it was 1.65. This situation changed rapidly in the following decade. While fertility levels remained stable in Western Europe, CEE countries were gradually entering the group of lowest-low fertility countries; indeed, in the late 1990s and early 2000s the TFR in the majority of them oscillated between 1.2–1.3. In some, such as Bulgaria, the Czech Republic, Latvia and Slovakia, it even fell below 1.2. Only since the early 2000s have CEE countries started to experience a gradual improvement in fertility. As a result, the average TFR in

this region has risen from its minimum of 1.29 in 1998 to 1.44 in 2010. These improvements have been strongest in Estonia, where the TFR reached 1.63 in 2010, Slovenia (1.57) and Lithuania (1.55). The lowest fertility levels, below 1.3, are currently observed in Hungary (1.25) as well as in Latvia (1.17), which experienced strong downturn in period fertility in 2009, probably due to the severe economic recession (Sobotka, Skirbekk and Philipov 2011).



Source: Eurostat Statistics Database.

Figure I

Developments in period Total Fertility Rate in CEE countries, 1980–2010

This decline in period fertility in the 1990s and early 2000s, as well as recent improvements in fertility, were driven partly by shifts in the timing of childbearing. The era when the majority of first births were delivered before the age of 23 has passed. From the cohorts born in the 1980s onwards, women mainly began to enter motherhood in the second half of their twenties (Frejka 2008). The strongest shifts in the timing of births were observed in the Czech Republic and Slovenia, where the mean age at first birth has increased by more than four years since the early 1990s. In the majority of other CEE countries this increase amounts to around three years. Only in Bulgaria, Lithuania, Romania and Poland has the magnitude of this change been weaker (around

two years). Part of the fertility decline can, however, be attributed to quantum effects whose magnitude seems to vary across countries. According to computations presented in Goldstein et al. (2009) and Sobotka (2011) the TFR adjusted for tempo distortion with the use of Bongaarts and Feeney method (1998) varies from 1.50 for Poland to 1.90 for Estonia. If the quantum effects were to be measured by differences between completed fertility for cohorts born in 1968 and adjusted TFR, the strongest quantum effects would be found in Poland, Slovakia and Hungary, and the weakest in Estonia, Bulgaria and Lithuania (own computations on the basis of the data presented in Sobotka (2011, 268)).

A typical feature of fertility decline in CEE countries is therefore postponement of first births and a decline in second or higher-order births (Frejka and Sardon 2007). The transition to first birth remains universal, although some increases in childlessness have also been observed in the region. According to estimates provided by Frejka (2008) and Frejka and Sardon (2006), the increase in childlessness was most pronounced in Poland where the proportion of childless women rose from eight per cent amongst women born in 1945–1955 to 15.5 per cent amongst women born in 1965. Poland currently has the highest levels of childlessness in the whole region, followed by Romania (13.1 per cent) and Slovakia (11.4 per cent).

Overall, this brief description of fertility developments in CEE countries suggests a gradual divergence in fertility in the region. In some countries – such as Hungary, Poland and Slovakia – quantum effects in fertility decline were relatively strong, and the countries consequently experienced weaker improvements in fertility. Fertility rates remain low there, with TFR at the level of 1.4 or lower. By contrast, in Estonia, Slovenia, Bulgaria and Lithuania, where fertility decline was to a larger extent driven by postponement of births, recent fertility improvements have been stronger and the period TFR in 2010 reached 1.49 (Bulgaria) or even exceeded this level (Estonia, Lithuania and Slovenia).

3 RISING MOTIVATIONS TO EARN AN INCOME VERSUS INCREASING DIFFICULTIES PARTICIPATING IN THE LABOUR MARKET

Replacement of the socialist regimes by the capitalist system resulted in a serious re-organisation of state and society, and consequently led to a profound change in the conditions of gaining income and participating in the labour force. Withdrawal of the state from its role as an employer as well as provider of financial support and social services, including free health care, childcare and education, resulted in an increase in individual responsibility for one's

economic well-being. The household became more dependent on its own resources, and in particular on its ability to earn an income (e.g. Frejka 2008; Kotowska et al. 2008).

In parallel, CEE countries also experienced rapid improvements in the availability of various consumer goods and services, which were not accessible on the market during state socialism. This development led to an outburst of consumer aspirations – many households strove to acquire a better car, a video player or modern domestic appliances (Sobotka 2003, 2011). Consumer aspirations became more sophisticated over time, alongside improvements in countries' economic situations: younger individuals aspired to travel abroad, or for higher-quality housing. However, not all these goods were easily accessible. In particular, many CEE countries experienced marked increases in house prices, with Poland taking a leading position in that respect.²

The shift in responsibility for economic well-being from the state to the individual, together with an increase in consumer aspirations, led to an obvious increase in motivations to earn an income. At the same time, however, this task became more difficult in increasingly competitive and demanding labour markets. Economic restructuring, the transition from state-controlled to privately owned companies, and changes in the structure of labour demand led to massive transformations in the labour market (Allison and Ringold 1996; Frejka 2008; Gebel 2008; Kotowska 2005; UNECE 2000). As a result, employment was no longer guaranteed. Additionally, increasing labour market competition led to an increase in employers' requirements and the importance of education and personal skills for earning an income and achieving success increased substantially. Finding and maintaining employment became much more difficult and required much more effort on the part of individuals. Consequently, employment rates, which were high during state socialism, fell in all CEE countries and unemployment, previously an unknown phenomenon, spread rapidly. The labour market situation was most difficult in Slovakia, Poland, Lithuania, Latvia and Bulgaria, where the unemployment rate exceeded ten per cent throughout most of the 1990s and in the early 2000s. In Bulgaria, Poland and Slovakia it almost reached 20 per cent at the turn of the century.

4 INCREASING TENSIONS BETWEEN PAID WORK AND FAMILY

Competing in the labour market became particularly difficult for women in this part of Europe, as they were still perceived as the main providers of care (Heinen 1997; Siemieńska 1997; Stankuniene and Jasilioniene 2008). Consequently, they faced a situation in which they had to balance family and

² See Bank for International Settlements, www.bis.org.

paid work under the new conditions of labour force participation. This task turned out to be difficult, not only as a result of transformations in the labour market but also as a result of strong tensions between family and paid work that arose in the post-socialist countries in the 1990s.

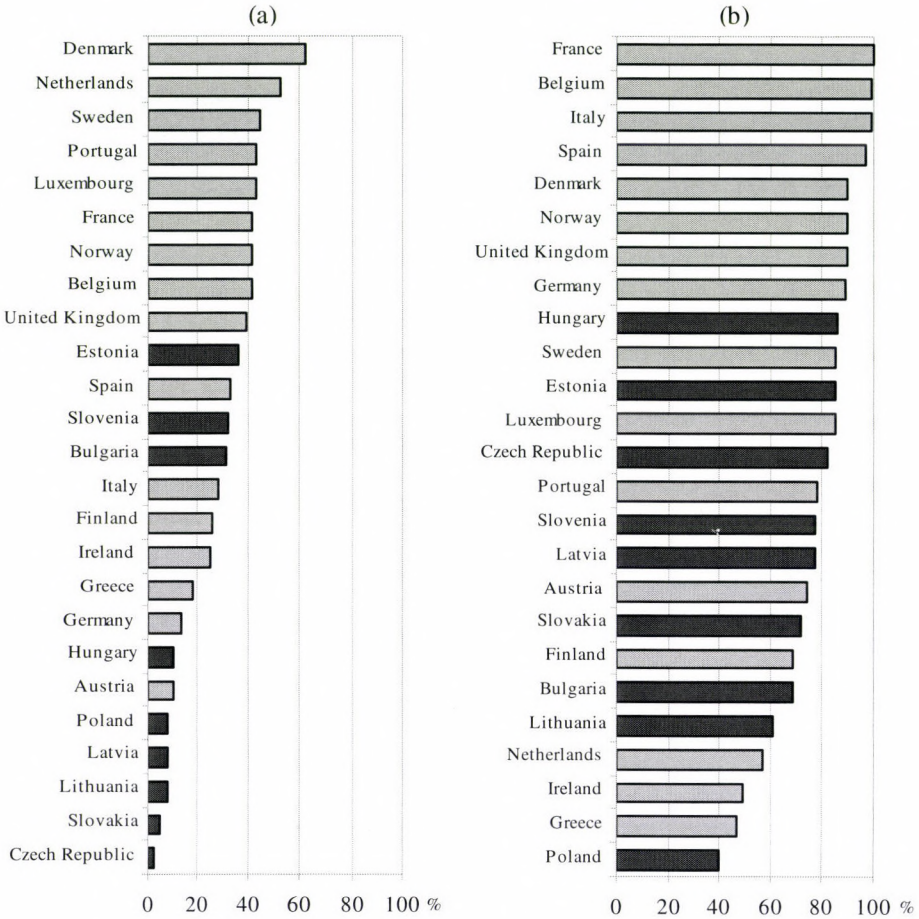
In general, one may distinguish three sources of work-family tensions: family policies or rather lack thereof, labour market structures (including flexibility of working hours and magnitude of the barriers to labour market entry), as well as social norms concerning gender roles (Aaberge et al. 2005; Adsera 2004; Engelhardt et al. 2004; Liefbroer and Corijn 1999; Matysiak 2011; Muszyńska 2007). Under state socialism, combining paid work and childrearing was fairly easy even if many of the above-mentioned elements were not conducive to work and family reconciliation. This was possible due to interplay of a group of factors that facilitated women's employment and at the same time allowed them to combine economic activity with childcare. These factors were: high expectations of women to work on the market (driven by a labour-intensive economy and low-wage policy), relatively good provision of public childcare for children aged over three (with enrolment rates in kindergartens of 80–90 per cent, except for Poland and Latvia, see Rostgaard (2004)) including children of school age, strong job guarantees and hardly any competition in the labour market. Virtually, all other elements of the system were unsupportive of the labour force participation of mothers. Public childcare provision for the youngest children was rather poor (with enrolment rates below ten per cent) in the majority of the CEE countries, the quality of public childcare was relatively low, parental leaves long (often up to three years), working hours in industrial companies were fairly rigid and part-time employment was scarce (Drobnič 1997). Furthermore, providing childcare was widely perceived to be 'women's work' with no incentives for men to participate in domestic and childrearing chores or any discussion on that topic (Heinen 1997; Pascall and Lewis 2004; Saxonberg and Sirovátka 2006). These shortcomings of the system, which would have led to strong tensions between work and family in a capitalist economy, did not depress women's labour force participation rates and fertility in the centrally planned economies characterised by uncompetitive labour markets. In such an environment terminating employment to care for a young child for a period of time brought no risk of job loss to women, and subsequent return to work after leave was fairly easy. It was thus common for mothers in CEE countries to cease paid work for the first two or three years after birth and to return to work smoothly afterwards by combining it with care of a pre-school and school-aged child. Altogether, the family policy model that evolved during state socialism was a dual earner–female double burden model in which men were solely responsible for earning income and women were expected to provide care as well as to work on the market.

It is therefore not surprising that the collapse of the socialist system and an introduction of labour market competition led to a strong increase in tensions between work and family life. Although social policy could have developed some instruments that would have mitigated the arising work-family conflict, in the majority of CEE countries exactly the opposite tendency was observed in the first decade of the economic transformation: the financial difficulties of the early 1990s led many CEE country governments to reduce expenditures on families. The responsibility for running childcare centres shifted to local authorities which, facing financial difficulties, increased enrolment fees and even reduced the number of childcare places available (Fultz, Ruck and Steinhilber 2003; Saxonberg and Sirovátka 2006). Nursery schools were particularly strongly affected by this change. Due to a decline in the number of children after 1989 enrolment rates in kindergartens have hardly changed, whereas enrolment rates in nursery schools have fallen dramatically. According to the UNICEF data presented in Pascall and Manning (2000), by 1997 the proportion of children aged 0–2 attending *crèche* declined by a magnitude of around three in Latvia and Lithuania (from a level above 30 per cent to around ten per cent) and almost halved in Poland (from just nine per cent to five per cent). Similar trends were observed in the Czech Republic and Slovakia (Saxonberg and Sirovátka 2006). Only in Slovenia did childcare facilities not undergo a reduction in the number of places (Kanjuo-Mrčela and Cernigoj Sadar 2011; Stropnik and Šircelj 2008). At the same time, governments withdrew financial support for families. Family benefits often became means-tested and through the 1990s their level deteriorated from 10–13 percent to below seven per cent of average wage (Rostgaard 2004). Not much changed initially as regards parental leaves, which remained long, allowing mothers to stay at home with their children for 2–3 years. Only Slovenia was an exception in this respect, since the total number of leave days was already relatively low there in the 1980s (the duration of maternity and parental leave totalled 365 days) though it was well paid (Stropnik and Šircelj 2008).

These developments in family policies observed in the 1990s were widely interpreted in the literature as attempts at “refamilisation”, encouraging women to leave employment and become housewives (Fultz et al. 2003; Hantrais 2002; Robila forthcoming; Szelewa and Polakowski 2008). The situation only started to improve in the 2000s, and only in some of the post-socialist countries that started to implement reconciliation policies. The most notable reforms were undertaken in Estonia, where efforts were made to improve childcare provision and increase the level of payments during parental leave (coverage of parents on leave with pension insurance and introduction of a speed-premium scheme) (Stankuniene and Jasilionis 2009). Hungary, Latvia and Lithuania extended financial support for parents, raising parental leave benefits and increasing child allowances (Stankuniene and Jasilionis 2009; Szelewa 2010). Some CEE

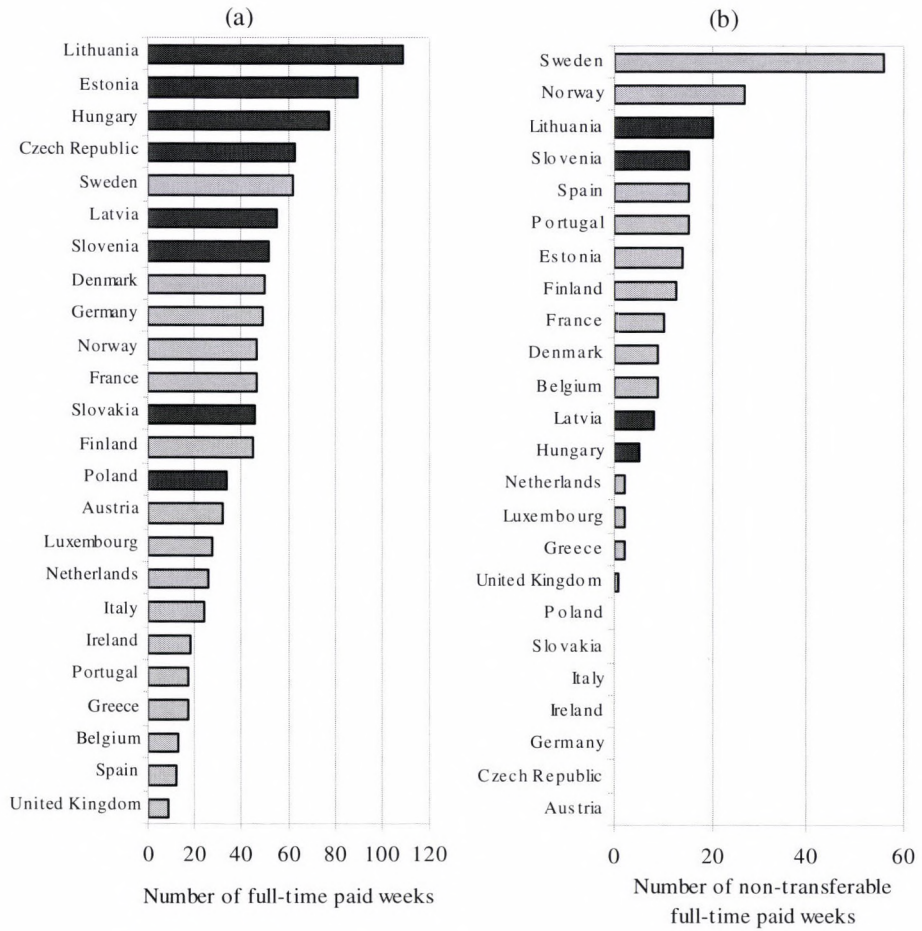
countries also introduced non-transferable paternity leaves; Slovenia was a clear leader in this respect, as it had already implemented a 90 days partly paid paternity leave in 2001. It was followed by Bulgaria, Estonia, Hungary, Latvia and Lithuania, where paternity leaves of 1–4 weeks were launched in the second half of the 2000s (Moss 2009). Poland joined this group of countries in 2010.

Despite these recent improvements in family policies in some of the CEE countries, reconciliation of work and family in the region is generally difficult (Figures II–V). Compared with other European countries the post-socialist countries are currently characterised by very low childcare provision for the youngest children (aged 0–2), with enrolment rates hardly exceeding ten per cent except in Estonia and 30 per cent in Slovenia. Childcare provision for children aged 3–5 ranges from low to moderate, with the lowest enrolment of children in Poland (around 40 per cent) and the highest in Estonia and Hungary (slightly above 85 per cent). By comparison, in Denmark 63 per cent of children aged 0–2 attends *crèche* and 91 per cent go to kindergarten. Working hours in CEE countries are amongst the most rigid in the EU. According to the Eurostat survey “Reconciliation between work and family life” conducted in 2005, changing the start or the end of the working day for family reasons is much more difficult in CEE countries than in Western Europe (Figure IV). The only exceptions are again Estonia and Slovenia, where the flexibility of working hours seems to be relatively high. Instead, CEE countries score very highly as regards parental leave entitlements for women (Figure IIIa). In Lithuania, Estonia, Hungary, the Czech Republic, Slovenia and Latvia the number of paid weeks of leave for women, measured in full-time equivalents, exceeded 50 in 2008; by comparison the only Western country which granted such generous parental leave entitlements was Sweden. Only Poland and Slovakia differ from the remaining CEE countries – the leaves are relatively long (over three years) but largely unpaid. Finally, the tensions experienced by women in CEE countries may also be culturally driven. As mentioned, women in this region are perceived as the main providers of care, and for a long time there has been no discussion about increasing involvement of men in household and care responsibilities. The traditional perception of the role of women is reflected in data from the International Social Survey Programme (2002), where respondents were asked whether a mother of a pre-school child should stay at home (Figure V). This belief was expressed predominantly by Polish and Slovakian respondents, though it was also relatively frequent in Hungary and Latvia, but not in Estonia and Slovenia. It is to be noted, however, that such a belief is also shared by inhabitants of some of the Western European countries, such as Great Britain, Austria and West Germany.



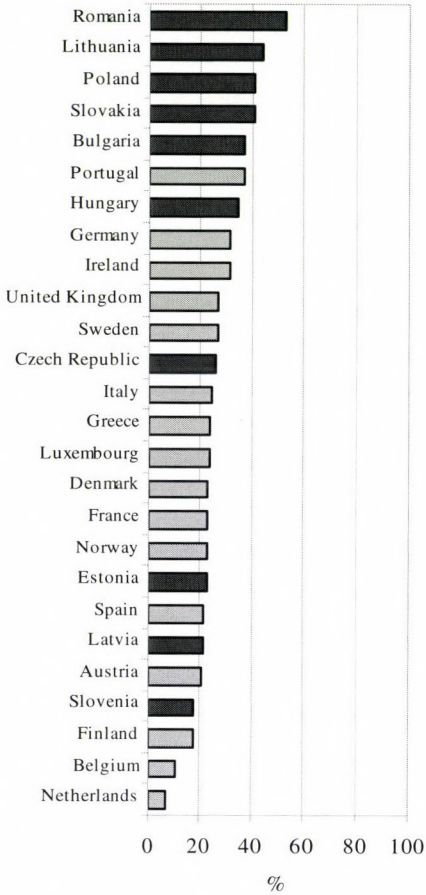
Source: OECD Family Database, data retrieved in January 2011.

Figure II
 Enrolment rates of children (a) aged 0-2 and (b) aged 3-5 in formal childcare arrangements around 2006



Source: OECD Family Database, data retrieved in January 2011.

Figure III
Maternity, paternity and parental leave entitlements: (a) maximum length available for women in full-time equivalents and (b) number of non-transferable paid weeks for men in full-time equivalents around 2008



Source: Eurostat survey 'Reconciliation between work and family life', Eurostat Statistics Database.

Figure IV

Rigidity of working hours: proportion of women aged 25-54 who cannot vary the start or the end of the working day, around 2005



Source: International Social Survey Programme (ISSP 2002).

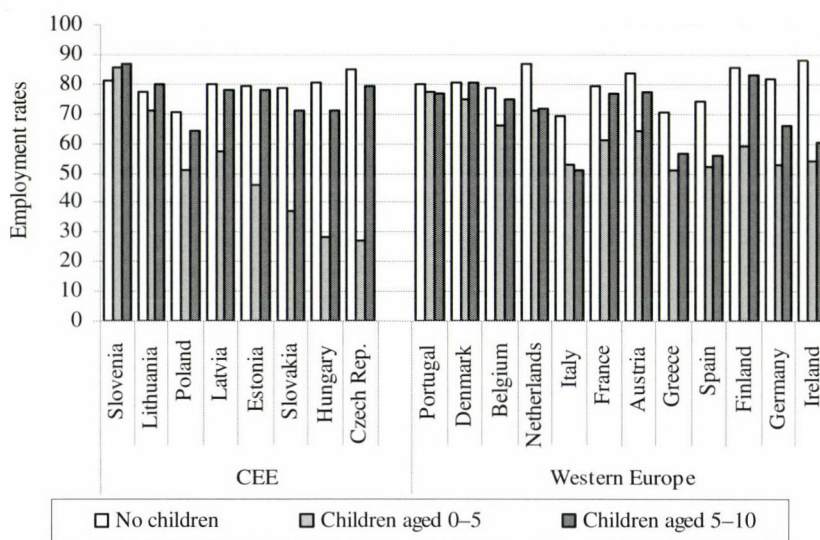
Figure V

Proportion claiming that the mother should stay at home when children are in pre-school age, around 2002

5 WOMEN'S RESPONSES TO AN INTENSIFICATION OF TENSIONS BETWEEN WORK AND FAMILY

Despite increasing tensions between work and family, and traditional opinions on gender roles which are deeply rooted in CEE societies, women abstained from reducing their economic activity (Matysiak 2009; Sobotka et al. 2008; Spéder and Kamarás 2008). While the employment rates of men fell substantially, this was not the case for women of reproductive age. Instead, various macro- and micro-level data revealed the strong determination of women to remain active and participate in paid employment.

Difficulties combining work and family, coupled with the strong determination of mothers to participate in the labour market are clearly visible in macro-level data presented in Figure VI. Its left-hand panel (CEE countries) shows dramatic discrepancies in the employment rates of childless women aged 25–40 and mothers of young children (aged 0–5). The only exceptions are Slovenia and Lithuania, where hardly any differences in the employment rates of childless women and mothers of young children are observed. On the other side of the spectrum lie the Czech Republic, Hungary and Slovakia, where these differences are particularly pronounced and exceed 40 percentage points. Such differences in women's employment rates are not present in any Western European country present on the graph. Interestingly, however, we observe hardly any differences in employment rates for childless women and mothers of children aged 5–10 in CEE countries. This cannot be said about some of the Western European countries, such as Ireland, Germany, Spain or Greece. This simple graph may therefore indicate the strong determination of women in CEE countries to return to work after parental leave despite the long time spent out of employment, probably as a result of lack of external childcare opportunities and strong social pressure on mothers to stay at home.



Source: Author's computations using European Labour Force Survey (2004).

Figure VI

Employment rates of women aged 25–40 by age of the youngest child, Europe 2004

The strong determination of women in CEE countries has also been documented in more in-depth micro-level studies. These studies have focused largely on comparing first birth intensities of employed women and women who do not have a job, controlling for standard socio-economic and demographic characteristics. They unambiguously indicate that women in employment are at least as likely to enter motherhood as women who do not have a job. Such findings have so far only been established for the Nordic countries, where work-family incongruities are rather low. In other European countries employed women are typically more likely to postpone motherhood than those who do not work (Matysiak and Vignoli 2008). For instance in Poland, a country with the worst public childcare provision in the EU and very traditional opinions on gender roles, women tend to seek out paid work before they become mothers (Matysiak 2009). This preference for employment before birth might mean that in Poland employment constitutes an important factor in the formation of a family. This finding is even more interesting when taking into account the fact that employment has been found to constitute a clear barrier to the entry to motherhood in Italy, a country where the tensions between work and family are similarly strong (Matysiak and Vignoli 2011). In another study, concentrating on the Czech Republic, Kantorová (2004)

compared the role of women's employment on the transition to motherhood before and after 1990. She found an increase in the importance of labour market experience and having a job on family formation amongst highly educated women. Empirical studies on East Germany (Kreyenfeld 2004) and Hungary (Róbert and Bukodi 2005) have found the intensity of progressing to motherhood to be even higher for working women than those who are inactive.

The strong determination of women and mothers to participate in paid employment despite difficulties in combining work and family has very likely been evoked by two factors:

- a strong income effect, which has arisen as a result of increasing difficulties earning an income, rising instability of men's employment and expanding consumer aspirations,
- culturally rooted attachment of women to the labour force, resulting from the internalisation of the picture of the working mother.

Irrespective of the reasons and whether women want to work or need to work, they must have developed strategies allowing them to maintain their position in the labour market given the strong tensions between work and family. One such strategy could have been increased participation in education. While women outdistanced men in terms of taking and completing education at tertiary level all over Europe, this tendency was particularly strong in CEE countries. As a result, five CEE countries are ranked top in the EU as regards the ratio of female to male university graduates. These are Latvia, Estonia, Lithuania, Hungary and Poland, where the ratio ranges from 1.87 (Poland) to 2.56 (Latvia). Another strategy adopted by women might have been to delay entry to motherhood and reduce family size. As stated by Saxonberg and Sirovátka (2006, 198) "rather than leaving the labour market, they [women] have quite simply left the reproductive market". Similar views have been expressed by other researchers studying fertility decline in CEE countries, such as Kotowska et al. (2008, 826) for Poland, Koytcheva and Philipov (2008, 390) for Bulgaria, Sobotka et al. (2008, 436) for the Czech Republic, Stankuniene and Jasilionene (2008, 731) for Lithuania. They consistently emphasise women's determination to establish a stable position in the labour market before becoming mothers. This 'employment-first' strategy is claimed to be particularly popular amongst highly educated women, whose proportion has been increasing rapidly over the last two decades. Under the unfavourable conditions of labour force participation and strong tensions between work and family it could have led to the postponement of parenthood and may result in even lower completed fertility. In order to corroborate this conclusion, further research on the interrelationship between women's employment and fertility would be welcomed, possibly for countries where such studies have not yet been conducted.

6 EMERGING DIVERSITY IN FAMILY POLICY MODELS AND POSSIBLE IMPLICATIONS FOR FERTILITY AND WOMEN'S EMPLOYMENT

Although it is undeniable that CEE countries have all experienced an increase in work-family tensions, it should also be noticed that the region is by no means a homogenous group in that respect. In fact, Figures II–V point to substantial differences in the level of public support for working parents and social acceptance of mothers' paid work. Some of these differences were already present in the 1980s, but they have increased as a result of diverse rates of deterioration in public support during the 1990s and a revival of reconciliation measures in the 2000s in some of the post-socialist countries. For instance, one may notice that childcare provision for the youngest children in Estonia, Slovenia and Bulgaria is far better (enrolment rates exceed 30 per cent) than in the remaining post-socialist countries (enrolment rates below eleven per cent). These three countries stand out from other CEE countries by their relatively high social acceptance of working mothers. Estonia, Slovenia and Latvia also appear to have more widespread acceptance of flexible working hours. Lithuania scores very highly when it comes to the generosity of leave provision – it grants long and well-paid parental and paternity leaves. By contrast, Poland and Slovakia seem to have the worst reconciliation measures: they score very lowly in terms of childcare services for the youngest children (Poland also takes the last position in the EU with respect to childcare provision for children aged 3–5), parental leave provision (they both grant long but low-paid leaves), rigidity of working hours and social acceptance of mothers' work. The situation in other CEE countries is more diverse. Hungary, for instance, offers quite good childcare for children aged 3–5 and generous parental leaves, but scores poorly on remaining dimensions. By contrast, in the Czech Republic childcare provision for the youngest children is very poor, but the country takes a middle position with respect to enrolment rates for children aged 3–5, flexibility of working hours and social acceptance of working mothers.

This diversity in family policies and attitudes toward working mothers has rarely been noticed in the context of the CEE region. The post-socialist countries were most often classified into one homogenous group of relatively good public support for working parents in the past, which deteriorated after the collapse of state socialism. The comparative study of family policies in 13 European countries conducted by Kontula and Soderling (2008) was one of the first which noticed the better performance of Slovenia compared with other CEE countries. The authors classified this country together with Finland into a 'day-care service model', which provided support for working parents via well-

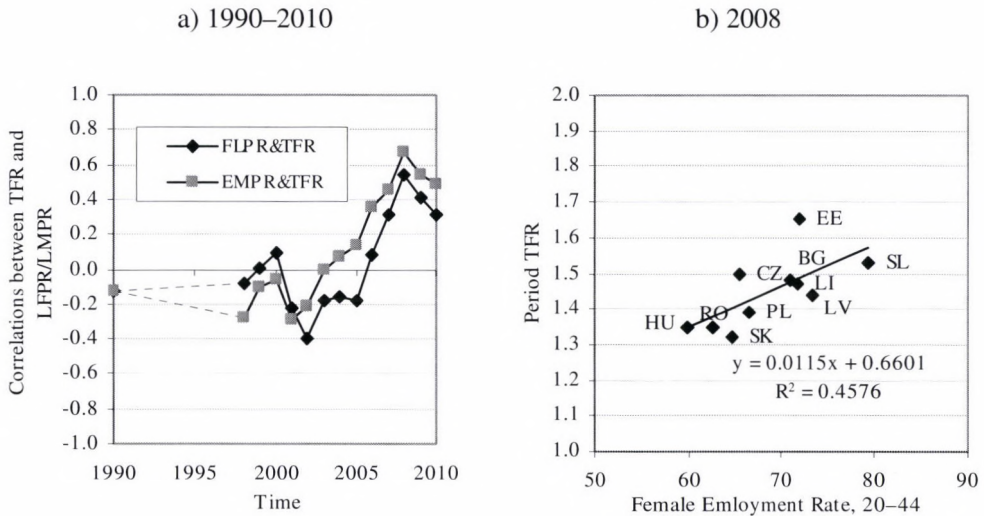
developed childcare services. The fact that Slovenian family policies facilitate reconciliation between paid work and family life was also underlined in analyses of family policy conducted by Slovenian authors (Kanjuro-Mrčela and Cernigoj Sadar 2011; Stropnik and Šircelj 2008). By contrast, the Czech Republic, Estonia, Hungary, Poland, Romania and Lithuania were grouped by Kontula and Soderling (2008) into an 'imposed home-care model' which relies largely on home-based care and only offers support to the poorest families. Another study which underlined cross-country differences in family policy models in the CEE region was performed by Szelewa and Polakowski (2008). They adopted a fuzzy set approach to analyse five aspects of family policy: public provision of childcare and its quality, duration of parental leaves, as well as the generosity and universality of parental leave benefits. Their analysis revealed four family policy models in the CEE region: explicitly familialistic, implicitly familialistic, female-mobilising and comprehensive support. In the first two models the responsibility for childcare is located within the family, but in the explicitly familialistic model the state pursues active policies to support the traditional family model, while in the implicitly familialistic model the state does not intervene in family matters and policies are consequently residual and formally neutral. The explicitly familialistic model covers the Czech Republic, Slovakia and – inconsistent with the previous evidence – Slovenia. Implicit familialism is implemented in Poland. The third model, female mobilising, is characterised by good childcare services, universal but less generous parental leave provisions and comprises Estonia and Latvia after the reform of their family policy models in the early 2000s. Finally, the comprehensive support model, typical of Hungary and Lithuania, does not create certain incentives, but aims to create choice for parents.

Future research should obtain further insights into the differences in support for working parents in the CEE region. Nevertheless, the few studies that have already made this effort demonstrate that such differences do exist. Despite some inconsistencies across studies and data sources, it seems that Estonia, Latvia and Slovenia tend to offer policies most supportive of work and family reconciliation, Hungary and Lithuania have policies which are multi-purpose and offer more choice to parents, while the Czech Republic, Slovakia and Poland tend to explicitly or implicitly favour a traditional male breadwinner family model.

These cross-country differences in public support for working parents and social support for mothers' paid work might have implications for fertility and women's employment. In fact, countries where reconciliation between work and family is easier (e.g. Slovenia, Estonia, Latvia and Lithuania) were also characterised in the 1990s and 2000s by the highest rates of employment of women aged 20–44, and countries where the reconciliation is more difficult (e.g. Poland and Slovakia) exhibited lower rates of female employment. A

notable exception in this respect is Hungary, where women's employment was low in the 1980s and remained low despite its comprehensive support for couples with children. Apart from Latvia, the countries with the highest rates of women's employment also experienced the most pronounced improvements in fertility in the 2000s. Stronger improvements in fertility in high women's employment countries (Estonia, Lithuania, Slovenia) and weaker improvements in low women's employment countries (Hungary, Poland, Slovakia) led to a reversal in the cross-country correlation between the period TFR and women's employment rate in the CEE region in the mid-2000s (Figures VIIa-b). This correlation started to emerge in the mid-2000s and reached its peak in 2008, i.e. just before the economic slow-down that hit many CEE countries. In the following years it weakened slightly, which might have been caused by temporary shifts in employment and fertility rates caused by the financial crisis.

The phenomenon of the positive cross-country correlation between fertility and women's employment has so far been observed for Western developed economies and was interpreted as a sign of the increasing diversity in the conditions for work and family reconciliation across countries (Ahn and Mira 2002; Engelhardt et al. 2004; Engelhardt and Prskawetz 2004; Kögel 2004; Rindfuss et al. 2003). Its emergence in CEE countries thus suggests that strong tensions between work and family hinder fertility and women's employment and hence that easing the work-family conflict is the right path to follow in this part of Europe as well. However, it is to be noted that the data presented here might also reflect a temporary phenomenon and that future research on this topic is needed. In particular, more in-depth analyses of the interrelationship between fertility and women's employment are required for the CEE region, in order to better recognise whether the differences in fertility rates and women's employment are indeed due to cross-country differences in public support for working parents and social acceptance of mothers' paid work. Furthermore, micro-level studies should be carried out to establish the causal effects of reconciliation measures on fertility and women's employment in the CEE region and formulate family policy recommendations more precisely.



Source: Author’s calculations; labour market data retrieved from OECD Employment Database, fertility data retrieved from Eurostat Statistics Database

Figure VII

Cross-country correlation between period Total Fertility Rate and Women’s Employment Rate (EMPR)/Labour Force Participation Rate (FLPR)

7 CONCLUSIONS

In this paper we provided an overview of developments in fertility and work-family tensions in the CEE region in the 1990s and 2000s. We demonstrated that the intensification of work-family incongruities in the 1990s might have been an important determinant of fertility decline in post-socialist countries in the 1990s, given the importance placed on women’s employment for family formation and the strong determination of women in the CEE region to participate in the labour force. Furthermore, we also showed that the 2000s brought some changes in family policies in some of the post-socialist countries, leading to an increase in diversity in the family policy models in the region. While Estonia and Slovenia appear to have implemented policies supporting mothers’ employment, the Czech Republic, Slovakia and Poland seem to have followed the re-familisation path which they entered in the 1990s. Hungary and Lithuania are to be found somewhere in the middle, offering comprehensive support to parents, aiming to provide them with the choice of outsourcing part

of the childcare or providing it at home. In parallel to this emerging diversity of family policy models, CEE countries started to exhibit differences in fertility levels as well as women's employment rates. All these developments led to an emergence of the positive cross-country correlation between period TFR and women's employment in the region. It is too early to say whether the positive cross-country correlation is driven by differences in country-specific conditions in work and family reconciliation, or if it is just a temporary phenomenon caused by the interplay of several factors unrelated to work-family tensions. Nevertheless, there is no doubt that the interrelationship between fertility, women's employment, family policies and social norms on women's work in the CEE region requires closer attention. In-depth studies are therefore called for in order to investigate the role of the increase in work-family incongruities on fertility decline in the 1990s, as well as the role of the emerging diversity in family policy models, so as to better understand variations in levels of fertility seen in the 2000s.

REFERENCES

- Aaberge, R., Colombino, U., Del Boca, D., Ermisch, J., Francesconi, M., Pasqua, S. and Strøm, S. 2005. Labor Supply and Fertility in Europe and the U.S. In Boeri, D., Del Boca, D. and Pissarides, C. (eds.): *Women at Work: An Economic Perspective*. Oxford, Oxford University Press, 125–153.
- Adsera, A. 2004. Changing Fertility Rates in Developed Countries: The Impact of Labor Market Institutions. *Journal of Population Economics* 17(1), 17–43.
- Ahn, N. and Mira, P. 2002. A Note on the Changing Relationship between Fertility and Female Employment Rates in Developed Countries. *Journal of Population Economics* 15(4), 667–682.
- Allison, C. and Ringold, D. 1996. *Labor Markets in Transition in Central and Eastern Europe, 1989–1995*. Washington DC, World Bank.
- Andersson, G., Kreyenfeld, M. and Mika, T. 2009. Welfare State Context, Female Earnings and Childbearing in Denmark and Germany. *Stockholm Research Reports in Demography No. 13*. Stockholm, Stockholm University.
- Baizan, P. 2009. Regional Child Care Availability and Fertility Decisions in Spain. *Demographic Research* 21, 803–842.
- Billingsley, S. 2010. Economic Crisis and Recovery: Changes in Second Birth Rates within Occupational Classes and Educational Groups. *Demographic Research* 24(16), 375–406.
- Bongaarts, J. and Feeney, G. 1998. On the Quantum and Tempo of Fertility. *Population and Development Review* 24(2), 271–291.
- Drobníč, S. 1997. Part-Time Work in Central and Eastern European Countries. In Blossfeld, H.-P. and Hakim, C. (eds.): *Between Equalization and Marginalization*. Oxford, Oxford University Press, 71–89.

- Engelhardt, H., Kogel, T. and Prskawetz, A. 2004. Fertility and Women's Employment Reconsidered: A Macro-Level Time-Series Analysis for Developed Countries, 1960–2000. *Population Studies* 58(1), 109–120.
- Engelhardt, H. and Prskawetz, A. 2004. On the Changing Correlation between Fertility and Female Employment over Space and Time. *European Journal of Population* 20(1), 35–62.
- 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. and Sardon, J.-P. 2006. First Birth Trends in Developed Countries: Persisting Parenthood Postponement. *Demographic Research* 15(6), 147–180.
- Frejka, T. and Sardon, J.-P. 2007. Cohort Birth Order, Parity Progression Ratio and Parity Distribution Trends in Developed Countries. *Demographic Research* 16(11), 315–374.
- Frejka, T., Sobotka, T., Hoem, J. M. and Toulemon, L. 2008. Childbearing Trends and Policies in Europe. *Demographic Research Special Collection* 7.
- Fultz, E., Ruck, M. and Steinhilber, S. 2003. *The Gender Dimensions of Social Security Reform in Central and Eastern Europe: Case Studies of the Czech Republic, Hungary and Poland*. Budapest, ILO Subregional Office for Central and Eastern Europe.
- Gebel, M. 2008. Labour Markets in Central and Eastern Europe. In Kogan, I., Gebel, M. and Noelke, C. (eds.): *Europe Enlarged: A Handbook of Education, Labour and Welfare Regimes in Central and Eastern Europe*. Bristol, The Policy Press, 35–62.
- Goldstein, J. R., Sobotka, T. and Jasilioniene, A. 2009. The End of "Lowest-Low" Fertility? *Population and Development Review* 35(4), 663–699.
- Hantrais, L. 2002. Central and East European States Respond to Socio-Demographic Challenges. *Social Policy and Society* 1(2), 141–150.
- Heinen, J. 1997. Public/Private: Gender – Social and Political Citizenship in Eastern Europe. *Theory and Society* 26, 577–597.
- Kanjuro-Mrčela, A. and Cernigoj Sadar, N. 2011. Social Policies Related to Parenthood and Capabilities of Slovenian Parents. *Social Politics: International Studies in Gender, State & Society* 18(2), 199–231.
- Kantorová, V. 2004. *Family Life Transitions of Young Women in a Changing Society: First Union Formation and Birth of First Child in the Czech Republic, 1970–1997*. Dissertation, Charles University in Prague and Université Paris I Panthéon-Sorbonne.
- Kögel, T. 2004. Did the Association between Fertility and Female Employment within OECD Countries Really Change its Sign? *Journal of Population Economics* 17(1), 45–65.
- Kontula, O. and Söderling, I. 2008. Demographic Change and Family Policy Regimes. In Höhn, C., Avramov, D. and Kotowska, I. E. (eds.): *People, Population Change and Policies: Lessons from the Population Policy Acceptance Study*. Berlin, Springer, 3–24.
- Kotowska, I. E. 1999. Drugie przejście demograficznego i jego uwarunkowania [Second Demographic Transition and its Circumstances]. In Kotowska, I. E. (ed.): *Przemiany demograficzne w Polsce w kontekście drugiego przejścia*

- demograficznego* [Demographic Change in Poland in the Context of the Second Demographic Transition]. Warsaw, Warsaw School of Economics, 11–33.
- Kotowska, I. E. 2005. Europa wobec przeobrażeń rodziny. Czy potrzebna jest europejska strategia prorodzinna? [Europe at the Time of Family Change: Do we Need a European Family Strategy?]. In Radło, M. J. (ed.): *Polska wobec redefinicji Strategii Lizbońskiej* [Poland and the Redefinition of the Lisbon Strategy], Green Paper of the Polish Forum of Lisbon Strategy. Warsaw, Gdańsk, 223–241.
- Kotowska, I. E., Józwiak, J., Matysiak, A. and Baranowska, A. 2008. Poland: Fertility Decline as a Response to Profound Societal and Labour Market Changes? *Demographic Research* 19(22), 795–854.
- Koytcheva, E. and Philipov, D. 2008. Bulgaria: Ethnic Differentials in Rapidly Declining Fertility. *Demographic Research* 19(13), 361–402.
- Kreyenfeld, M. 2004. Fertility Decisions in the FRG and GDR: An Analysis with Data from the German Fertility and Family Survey. *Demographic Research* 3(11), 275–318.
- Lesthaeghe, R. and Surkyn, J. 2002. New Forms of Household Formation in Central and Eastern Europe: Are they related to the Newly Emerging Value Orientations? *Economic Survey of Europe* 1, 197–216.
- Liefbroer, A. C. and Corijn, M. 1999. Who, What, Where, and When? Specifying the Impact of Educational Attainment and Labour Force Participation on Family Formation. *European Journal of Population* 15(1), 45–75.
- Macura, M. 2000. *Fertility Decline in the Transition Economies, 1989–1999: Economic and Social Factors Revisited*. Geneva, United Nations Economic Commission for Europe, 189–207.
- Matysiak, A. 2009. Employment First, Then Childbearing: Women's Strategy in Post-Socialist Poland. *Population Studies* 63(3), 253–276.
- Matysiak, A. 2011. *Interdependencies between Fertility and Women's Labour Supply*. Dordrecht: Springer.
- Matysiak, A. and Vignoli, D. 2008. Fertility and Women's Employment: A Meta-Analysis. *European Journal of Population* 24(4), 363–384.
- Matysiak, A. and Vignoli, D. 2011. Different Women's Employment and Fertility Behaviours in Similar Institutional Settings: Evidence from Italy and Poland. *Working Paper* No. 15. Warsaw, Institute of Statistics and Demography, Warsaw School of Economics.
- Moss, P. 2009. International Review of Leave Policies and Related Research 2009. *Employment Relations Research Series* No. 12. London, Department for Business, Enterprise and Regulatory Reform.
- Muszyńska, M. 2007. *Structural and Cultural Determinants of Fertility in Europe*. Warsaw, Warsaw School of Economics Publishing.
- Pascall, G. and Manning, N. 2000. Gender and Social Policy: Comparing Welfare States in Central and Eastern Europe and the Former Soviet Union. *Journal of European Social Policy* 10(3), 240–266.
- Pascall, G. and Lewis, J. 2004. Emerging Gender Regimes and Policies for Gender Equality in a Wider Europe. *Journal of Social Policy* 33(3), 373–394.
- Perelli-Harris, B. 2008. On the Border between Old and New in Uncertain Times. *Demographic Research* 19(29), 1145–1178.

- Philipov, D. 2003. Fertility in Times of Discontinuous Social Change. In Kotowska, I. E. and Jóźwiak, J. (eds.): *Population of Central and Eastern Europe: Challenges and Opportunities*. Warsaw, Statistical Publishing Establishment, 665–689.
- Rindfuss, R. R., Guzzo, K. B. and Morgan, S. P. 2003. The Changing Institutional Context of Low Fertility. *Population Research and Policy Review* 22(5), 411–438.
- Rindfuss, R. R., Guilkey, D. K., Morgan, S. P. and Kravdal, Ø. 2010. Child-Care Availability and Fertility in Norway. *Population and Development Review* 36(4), 725–748.
- Róbert, P. and Bukodi, E. 2005. The Effects of the Globalization Process on the Transition to Adulthood in Hungary. In Blossfeld, H-P., Klijzing, E., Mills, M. and Kurz, K. (eds.): *Globalization, Uncertainty and Youth in Society*. London and New York, Routledge, 176–214.
- Robila, M. forthcoming. Family Policies in Eastern Europe: A Focus on Parental Leave. *Journal of Child and Family Studies*, 1–10.
- Rostgaard, T. U. 2004. *Family Support Policies in Central and Eastern Europe: A Decade and a Half Transition*. Paris, UNESCO.
- Saxonberg, S. and Sirovátka, T. 2006. Failing Family Policy in Post-Communist Central Europe. *Journal of Comparative Policy Analysis* 8(2), 185–202.
- Siemieńska, R. 1997. Wartości i postawy warunkujące obecność kobiet na rynku pracy [Values and Attitudes Determining Women's Labour Supply]. In Siemieńska, R. (ed.): *Wokół problemów zawodowego równouprawnienia kobiet i mężczyzn* [On the Gender Equality in the Labour Market]. Warsaw, Institute of Philosophy and Sociology, Polish Academy of Sciences.
- Sobotka, T. 2003. Understanding Lower and Later Fertility in Central and Eastern Europe. In Kotowska, I. E. and Jóźwiak, J. (eds.): *Population of Central and Eastern Europe: Challenges and Opportunities*. Warsaw, Statistical Publishing Establishment, 691–724.
- Sobotka, T. 2008. The Diverse Faces of the Second Demographic Transition in Europe. *Demographic Research* 19(8), 171–224.
- Sobotka, T. 2011. Fertility in Central and Eastern Europe after 1989: Collapse and Gradual Recovery. *Historical Social Research* 36(2), 246–296.
- Sobotka, T., Zeman, K. and Kantorová, V. 2003. Demographic Shifts in the Czech Republic after 1989: A Second Demographic Transition View. *European Journal of Population* 19(3), 249–277.
- Sobotka, T., Šťastná, A., Zeman, K., Hamplová, D. and Kantorová, V. 2008. Czech Republic: A Rapid Transformation of Fertility and Family Behaviour after the Collapse of State Socialism. *Demographic Research* 19(14), 403 – 454.
- Sobotka, T., Skirbekk, V. and Philipov, D. 2011. Economic Recession and Fertility in the Developed World. *Population and Development Review* 37(2), 267–306.
- Spéder, Zs. and Kamarás, F. 2008. Hungary: Secular Fertility Decline with Distinct Period Fluctuations. *Demographic Research* 19(18), 599–664.
- Stankuniene, V. and Jasilioniene, A. 2008. Lithuania: Fertility Decline and its Determinants. *Demographic Research* 19(20), 705–742.
- Stankuniene, V. and Jasilionis, D. 2009. *The Baltic Countries: Population, Family and Family Policy*. Vilnius, Institute for Social Research.
- Stropnik, N. and Šircelj, M. 2008. Slovenia: Generous Family Policy without Evidence of any Fertility Impact. *Demographic Research* 19(26), 1019–1058.

- Szelewa, D. 2010. Childcare Policies and Gender Relations in Eastern Europe: Hungary and Poland Compared. *Harriet Taylor Mill-Institut für Ökonomie und Geschlechterforschung Discussion Paper 17*. Berlin: Berlin School of Economics and Law.
- Szelewa, D. and Polakowski, M. P. 2008. Who Cares? Changing Patterns of Childcare in Central and Eastern Europe. *Journal of European Social Policy* 18(2), 115–131.
- UNECE. 2000. The Transition Economies. In: *Economic Survey of Europe 2000*. Geneva, United Nations Economic Commission for Europe.

SIGNS OF A STABLE OR PROVISIONAL INCREASE IN FERTILITY? REFLECTIONS ON DEVELOPMENTS IN ESTONIA

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ABSTRACT: *Over the past decade, demographers have observed a recovery of fertility rates in most low and lowest-low fertility countries, unfortunately interrupted by the economic recession. In this article we examine trends in fertility in Estonia since the beginning of the 1990s. Estonia merits attention in the context of Eastern Europe because of its relatively strong recovery of fertility rates during the 2000s. Analysis draws on data from vital and survey statistics and employs descriptive methods. To estimate the impact of postponement on period fertility rates, the adjustment method developed by Bongaarts and Feeney is applied. The dynamics of tempo-adjusted measures challenges a popular view which contrasts low fertility characteristic of the post-socialist period with high fertility characteristic of the socialist period. In Estonia such a contrast can be observed only in the 1980s and 1990s when looking at tempo-adjusted fertility measures. With regard to cohort fertility, women born in 1970 will have an average of just over 1.85 children. In comparative perspective, strong recuperation of second (and third) births differentiates Estonia from countries exhibiting a weaker recovery of fertility rates. The authors conclude that the relatively strong recovery of fertility rates in Estonia in the 2000s is a result of a combination of factors, including family policies that reduced the opportunity costs of parenthood, economic growth that secured high levels of employment for the population and plausibly some elements of demographic path dependence.*

1 INTRODUCTION

Demographic transition theorists (Notestein 1953; Kirk 1996) expected the shift towards the modern demographic regime to result in a new equilibrium between low and relatively stable levels of mortality and fertility. However, developments did not occur exactly as forecast, and advanced countries have not yet witnessed this loss of dynamism in either process. Regarding mortality, developments have not conformed to predictions concerning stagnation of life expectancy. On the contrary, declines in mortality have continued at an unan-

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anticipated pace even in countries with the highest life expectancies (Oeppen and Vaupel 2002; Vallin and Meslé 2009). Following the temporary respite of the post-war baby boom, European fertility resumed its decline and reached unprecedented low levels in the 1990s, particularly in Eastern and Southern parts of the continent. Kohler, Billari and Ortega (2002) coined the term “lowest-low fertility” for period TFR below 1.3 to describe these new lows. At the beginning of the twenty-first century, more than half of Europe’s population lived in countries with period fertility close to or below that threshold.

Over the past decade, however, demographic statistics have documented a reversal of the trend and a recovery of fertility rates – unfortunately interrupted by the economic recession – in most low and lowest-low fertility countries. Period fertility has risen in countries of Eastern and Southern Europe; the only exceptions to this trend in Europe are German-speaking countries (Goldstein, Sobotka and Jasilioniene 2009). Although the concept of a self-reinforcing decline in fertility advanced by Lutz, Skribekk and Testa (2006) does not appear to have been realised, the levels to which fertility might gravitate in the future remains an open question.

Evidence suggests that there may not be a single answer to this question. There is a reasonable level of consensus among researchers about the diversity of sub-replacement fertility regimes in contemporary Europe (e.g. Frejka and Sardon 2004; Frejka and Sobotka 2008). Generally speaking, period fertility rates moderately below replacement level are maintained in most areas of Northern and Western Europe. On the other hand, period fertility considerably below replacement is characteristic of Eastern and Southern Europe, as well as German-speaking countries. In a number of countries in these regions low period fertility persists even after the trend towards later childbearing is taken into account. There are also indications of rather low completed fertility in generations born after the mid-1960s, and in several countries young people are increasingly expressing a preference for a sub-replacement family size (Goldstein, Lutz and Testa 2003; Testa 2007). This implies that the observed fertility differentials might not be short term, but may persist for a longer period, and that the affected countries may face accelerated demographic ageing and population decline.

The diversification of fertility regimes is included in the concept of the Second Demographic Transition (SDT), which has gradually evolved into an overarching theoretical framework for the study of contemporary demographic change. According to Lesthaeghe and van de Kaa (1986), the SDT constitutes a major transformation in demographic patterns, with shifts in childbearing, partnership formation and dissolution, and living arrangements at its core. The premise of the transition implies that these shifts are universal but they emerge gradually, with “leaders” and “laggers” across different countries and sub-groups of the population. After the mid-1960s, new behavioural patterns first came to the fore in Northern and Western Europe, but during the following

decades they spread to other parts of the continent, thus lending support to the universality of transformation and diffusion mechanisms involved in it.

In Eastern Europe, the full-scale emergence of the SDT's features followed the demise of state socialist regimes at the turn of the 1990s. Witnessing the precipitous drop in marriage and fertility rates on the one hand, and the mounting difficulties of economic transition on the other, contemporaneous observers tended to make a direct connection between them and attribute the former to the latter (e.g. UNECE 1999, 2000). The actual course of demographic trends, however, offers limited support for this explanation. Since the mid-1990s, most Eastern European economies have experienced a marked recovery, but there has been no return to earlier patterns of childbearing and family formation. Although certain aspects of the SDT are continuously under debate (Perelli-Harris 2008; Perelli-Harris and Gerber 2011), the existence of the phenomenon in the region can hardly be denied.

With regard to fertility, the theory of the Second Demographic Transition, as formulated by its main developers, conceptualised three interrelated changes in behavioural patterns. First, the SDT was expected to bring about extensive postponement of parenthood, facilitated by the widespread use of modern contraception, enabling young adults to pursue other goals in life.³ Second, as a result of spreading cohabitation and increased instability of unions, the SDT was expected to lead to a marked disconnection of childbearing from registered marriage and a rise in the proportion of non-marital births. Finally, the transition was expected to lead to a long phase of sub-replacement fertility, which in period perspective is fuelled by postponement of childbearing. It is important to note that in its original formulation, the SDT theory did not make a distinction between fertility levels close to and markedly below replacement level (van de Kaa 1987; Lesthaeghe 1995). This shortcoming, obviously resulting from the limited account of childbearing trends in the 'model countries' of the SDT, left the door open to the simplistic interpretation that the SDT will inevitably lead to (very) low fertility and resultant criticism of this interpretation (Coleman 2004).

This shortcoming has been remedied in a recent update of the theory, which recognises the emergence of multiple variants of the SDT, rooted in contextual differences and varying historical experiences (Lesthaeghe 2010). Hence, the SDT should not be regarded as a script with a single scenario, but rather as a general story line which leaves room for a variety of sub-plots, each anchored in empirical evidence. The presence of "diverse faces of the SDT" has been recognised not only with regard to major regions of Europe but also within them. Eastern Europe, which has seen the development of increasing diversity across countries since the 1990s, is an important case in point (Katus 2003; Sobotka 2003, 2008).

³ To underline the universality, irreversibility and salience of later childbearing, Kohler, Billari and Ortega (2002) coined the term "postponement transition" to denote it.

In terms of research, recognition of diversity valorises studies of country-specific developments, their underlying factors and societal impacts. In this article we describe fertility trends in Estonia since the beginning of the 1990s. In the context of Eastern Europe, Estonia merits attention because of its relatively strong recovery of fertility rates during the 2000s. In the concluding section, we discuss factors that may have contributed to this.

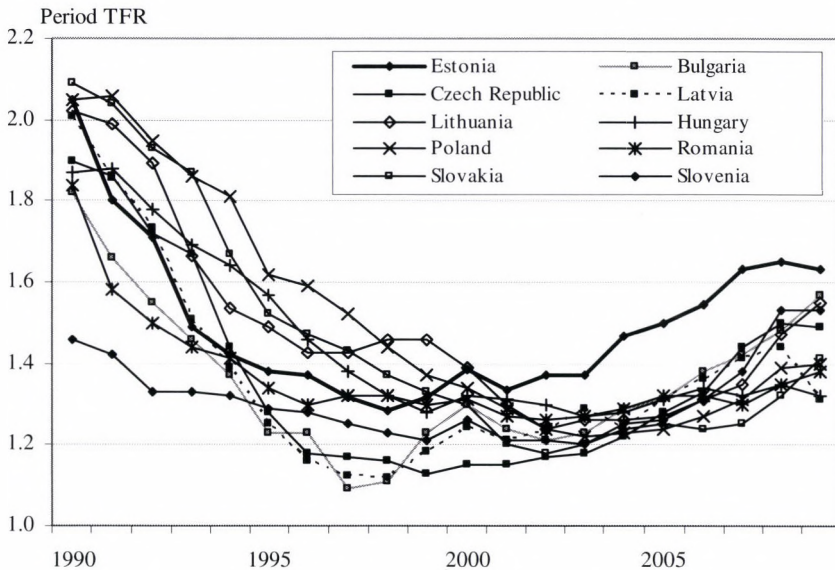
2 FERTILITY TRENDS IN ESTONIA SINCE 1990

Changes in Period Fertility

Trends in the total fertility rate (TFR) – the most commonly used indicator – reveal three distinct period fertility phases in Estonia over the past two decades (Figure I). As elsewhere in Central and Eastern Europe, the beginning of the 1990s witnessed a steep downturn in period fertility rates in Estonia. Following a peak in 1987–1988, when the TFR temporarily reached 2.26 children per woman, the first signs of a decline started to emerge in 1989–1990. By the time Estonia regained its independence in 1991, the total fertility rate had fallen to 1.8. A steep decline continued until 1994, during which time the TFR dropped below 1.5 children per woman, the threshold commonly used to define very low fertility. After 1994, the decline began to decelerate, and period fertility reached its lowest level (1.28) in 1998.

Rapid decline was followed by a period during which the fertility rate remained close to its lowest level. The rate of 1.4 children per woman defines the nine-year period from 1995 to 2003, when the TFR fluctuated within a relatively narrow margin of between 1.28 and 1.39. The first signs of recovery of the fertility rate emerged in 1999–2000, but its ascent was interrupted after the turn of the millennium, and by 2002–2003, the period TFR was lower than in 2000.

A more persistent recovery began in 2004, and the total fertility rate reached 1.66 children per woman in 2008. In comparative perspective, Estonia has experienced a relatively strong recovery of fertility rates. Since the 2000s, the country has experienced the highest period TFR among Central and Eastern European EU member states, and partially closed the gap in fertility levels with Northern and Western Europe. The upward trend in fertility rates was interrupted in 2009, as a result of the economic recession. However, despite a marked increase in unemployment and economic uncertainty, the decline in fertility rates seems relatively limited. In 2009 the TFR was 1.63 children per woman, and by 2010 it had actually increased to 1.64. Monthly data on the number of births indicate that there will likely be a reduction in 2011, plausibly close to the levels observed in 2006.



Source: Council of Europe 2006; Eurostat 2011.

Figure I
 Period Total Fertility Rate
 Estonia and other Eastern European EU member states, 1990–2009

Timing of Childbearing and Tempo Effects

The fertility rate dynamics discussed in the previous section may be somewhat misleading. The low and very low levels of the period TFR since 1990 are closely associated with postponement of parenthood to later ages, something that has become a universal feature of contemporary fertility patterns (Kohler, Billari and Ortega 2002; Sobotka 2004a). Fertility postponement negatively affects all the usual fertility indicators because some of the births that would have occurred in a given period are deferred. This phenomenon, termed the “tempo effect”, is proportional to the pace at which the average age at childbearing increases: when fertility postponement occurs rapidly, the period fertility measures are significantly depressed. Therefore, it is important to take into account the temporal trajectory of fertility postponement in order to understand changes in contemporary fertility levels.

Figure II shows changes in the timing of childbearing by providing women’s age at first birth. To put recent and contemporary developments in the context of longer-term trends, the figure presents mean age at first birth since the 1960s, and

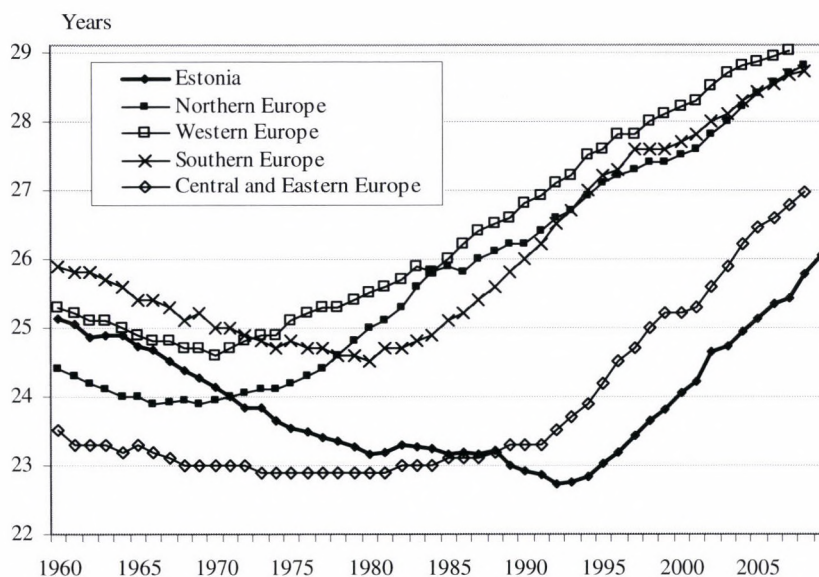
compares Estonia with four major regions of Europe. Over that timeframe two contrasting shifts in the timing of parenthood can be clearly distinguished.

In the areas west of the Hajnal line, populations experienced a shift towards younger ages in reproductive events, including union formation and childbearing until the mid-1960s.⁴ The data reveal that Estonia shared that same trend during that period. In the early 1960s, Estonian women entered motherhood at the same age – slightly above 25 – as their counterparts in Western Europe.

Unlike in most other countries characterised by the Western European marriage pattern in the past, the trend towards earlier entry into motherhood did not reverse in the late 1960s or 1970s, but persisted noticeably longer in Estonia. It was not until the 1980s that the decline in age of parenthood finally came to a halt, when age at first birth stabilised at around 23 years. As shown in the figure, divergent trends led to a growing disparity in the timing of childbearing between Estonia and the countries of Northern, Western and Southern Europe. At the same time, the trend converged with the pattern that prevailed in most countries of Central and Eastern Europe. Researchers have identified various institutional mechanisms among the factors that supported early childbearing until the fall of the Iron Curtain, including housing allocation and limited opportunities for self-realisation beyond the family, etc. (Ni Brolchain 1993; Sobotka 2004a). The persistence of these mechanisms explains why the shift to delayed childbearing did not occur before the collapse of the socialist regime.

Figure II shows that the turning point in the timing of childbearing in Estonia occurred in 1991. As of 1992 the mean age at first birth began to increase; postponement of parenthood accelerated in 1994 and still persists. Since 1994, age at first birth has increased 0.2 years per annum in Estonia; by 2010, it had reached 26.3 years. An extrapolation of past trends suggests that it will likely take about 15 years more for the country to reach the mean age of parenthood that currently characterises the forerunners of the “postponement transition”, i.e. the countries in which the trend towards later childbearing started in the 1970s. Although a shift towards further postponement may continue after reaching that level, the period of rapid change in the timing of childbearing will evidently come to a close around the mid-2020s in Estonia.

⁴ John Hajnal (1965) identified two historical marriage patterns in Europe. He distinguished the Western European marriage pattern, characterised by high age at first marriage (at least 23 years for females) and a high proportion of people who would never marry (at least ten per cent). With regard to geography, Hajnal described the approximate boundary of the Western European marriage pattern as running from St. Petersburg on the Baltic Sea to Trieste at the Mediterranean. The areas West of this line shared the late/low prevalence marriage pattern whereas the populations on the Eastern side were characterised by earlier marriage and lower proportions remaining single.



Source: Authors' calculations based on data from the Council of Europe 2006; Eurostat 2011.

Note: Northern Europe = DK, FI, NO, SE; Western Europe = AT, BE, CH, FR, GE, IE, LU, NL, UK; Southern Europe = GR, ES, IT, PT; Central and Eastern Europe = BG, CZ, GE-E, HU, PL, RO, SK.

Figure II
Mean age of mother at first birth
Estonia and major regions of Europe, 1960–2009

To estimate the impact of postponement on period fertility rates, we applied the adjustment method developed by Bongaarts and Feeney (1998). The rationale behind this approach considers the conventional total fertility rate to consist of a quantum and a tempo component. The quantum component is defined as the TFR that would have been observed in the absence of changes in the timing of childbearing; the tempo component equals the distortion that occurs due to shifts towards earlier or later childbearing. In this analytical framework, the tempo-adjusted TFR is interpreted as the hypothetical level of fertility within a given period in the absence of shifts towards later or earlier childbearing (Bon-

gaarts 2002).⁵ The difference between the tempo-adjusted and the conventional measure is regarded as an estimate of the tempo effect.

The approach required Bongaarts and Feeney to make some simplified assumptions about changes in the patterns of childbearing. According to the central assumption, the shape of the age schedule of fertility at each birth order is expected to remain constant during the period for which the TFR is measured. Substantively, this implies that women belonging to different birth cohorts are all assumed to respond in the same way to period influences. Following first publication, the assumptions underlying the method have been widely discussed in the demographic literature. Critics of the method have argued that this assumption is unrealistic and have questioned its actual usefulness (e.g. van Imhoff and Keilman 2000; van Imhoff 2001; Smallwood 2002). Proponents have admitted that the invariance of fertility schedules does not hold absolute, but have contended that annual changes in order-specific fertility schedules are typically small, and the assumption of invariant shape provides a reasonably good approximation of reality (Bongaarts and Feeney 2000).⁶ A recent study that compared various methods of adjusting the observed period fertility rates supports this view, concluding that the TFR adjusted by the Bongaarts-Feeney method remains an acceptable alternative for estimating period fertility quantum (Bongaarts and Sobotka 2012). An additional limitation of the method lies in the rather large volatility of the adjusted measures, which show considerably larger year-to-year fluctuations than conventional TFRs.⁷

Despite these methodological shortcomings, the tempo-adjusted measures have proven their usefulness as an addition to the demographer's analytical toolbox. With careful interpretation of the results, tempo-adjusted measures have been instrumental in arriving at a more realistic account of the levels and trends of fertility in low-fertility countries (e.g. Sobotka 2004b; Goldstein, Sobotka and Jasilioniene 2009). Although more sophisticated methods of period fertility adjustment have been developed (Kohler and Philipov 2001; Kohler and Ortega 2002), lack of annual data on age- and order-specific exposure prevents their application in many countries, including Estonia.

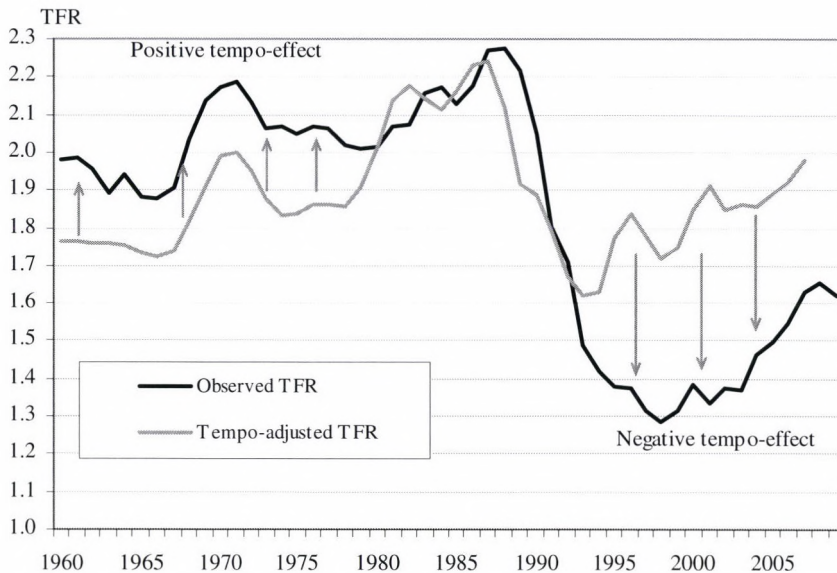
Figure III shows trends in the tempo-adjusted and conventional TFRs for Estonia. A comparison of the two measures reveals that the rapid decrease in

⁵ The adjusted total fertility rate is computed as a sum of order-specific fertility rates, which take order-specific changes in the mean age as an adjustment factor (Bongaarts and Feeney 1998).

⁶ This view was supported by sensitivity analysis undertaken by Zeng and Land (2001). They concluded that the Bongaarts-Feeney method is generally robust in producing reasonable estimates, except in abnormal conditions when fertility changes suddenly and from one year to the next (e.g. in wars, famines, etc.).

⁷ To overcome this limitation, the tempo-adjusted measures should be aggregated over several years and their short-term variations interpreted with caution. The tempo-adjusted TFRs presented in this article are smoothed with a three-year moving average.

the quantum of fertility was concentrated in a fairly short period at the beginning of the societal transition – from 1988 to 1992. During these years, both the tempo-adjusted and conventional fertility rates declined and the mean age of childbearing reached its nadir. A new phase in fertility dynamics began to take shape in 1993, when the trends of the two measures started to diverge. The tempo-adjusted TFR stopped declining and, demonstrating the fluctuations characteristic of the measure, embarked on a slow upward trend. The conventional TFR, on the other hand, continued to decrease for another six years until it reached its lowest point in 1998. The divergence between the two measures suggests that from 1993 onwards, the decline in fertility rates was wholly driven by postponement of parenthood in Estonia. The difference between the conventional and tempo-adjusted TFRs peaked around the year 2000, when the observed fertility rate was close to its nadir. From 1995 to 2003, the difference between the two measures amounted on average to 0.47.



Source: Authors' calculations.

Figure III
Observed and tempo-adjusted total fertility rates
Estonia, 1960–2009

During the post-2004 recovery of fertility rates, Estonia experienced a parallel increase in tempo-adjusted and conventional fertility rates, which suggests a recovery in the quantum of childbearing. Although difference between the two

measures has lessened somewhat, the effect of fertility postponement remains significant (the average difference between the tempo-adjusted and the conventional TFR was 0.38 in 2004–2008). To place contemporary and recent developments in perspective, the time series in Figure III are extended back to the 1960s. The data reveal that in the 1960s and 1970s a shift towards earlier childbearing brought about a positive tempo effect, which inflated the observed period fertility rates in Estonia. To some extent, the situation resembles that of Northern and Western European countries in the 1950s and the early 1960s, when the high fertility of the Baby Boom era was partly driven by advancement of childbearing to younger ages. With regard to Estonia, Figure III also reveals that once shifts in the timing of childbearing are taken into account, contemporary levels of fertility do not appear significantly lower than they did in the 1960s or the 1970s.

Unless these results are due to artefacts in the measurement of tempo-adjusted TFRs, consideration of changes in the timing of childbearing gives the post-transitional fertility trend in Estonia a more nuanced look. In particular, the dynamics of tempo-adjusted measures seems to challenge a popular but simplistic view, which contrasts the “low” fertility characteristic of the post-socialist period with the “high” fertility of the socialist period. Judging from the tempo-adjusted fertility measures, in Estonia such a contrast can be observed only for the 1980s and 1990s. For other periods, the comparison may lead to different results. For instance, in 1960–1979 the average tempo-adjusted TFR was 1.84, whereas in 1995–2009 it amounted to 1.87.⁸

The tempo-adjusted TFR in Estonia has exceeded 1.9 in recent years. This is an encouraging development in the context of low fertility, but it must be noted that tempo-adjusted measures do not provide a straightforward prediction of the level to which fertility will eventually return once postponement has run its course. In an explanation of their method, Bongaarts and Feeney (2000, 560) stress that “neither the conventional nor the adjusted TFR attempts to estimate the completed fertility of any actual birth cohort, nor do they attempt any prediction of future fertility”.⁹ Uncertainty relates to the recuperation of fertility in younger generations of women, who are currently postponing their childbearing

⁸ The average observed TFR was 2.02 in 1960–1979 and 1.44 in 1995–2009.

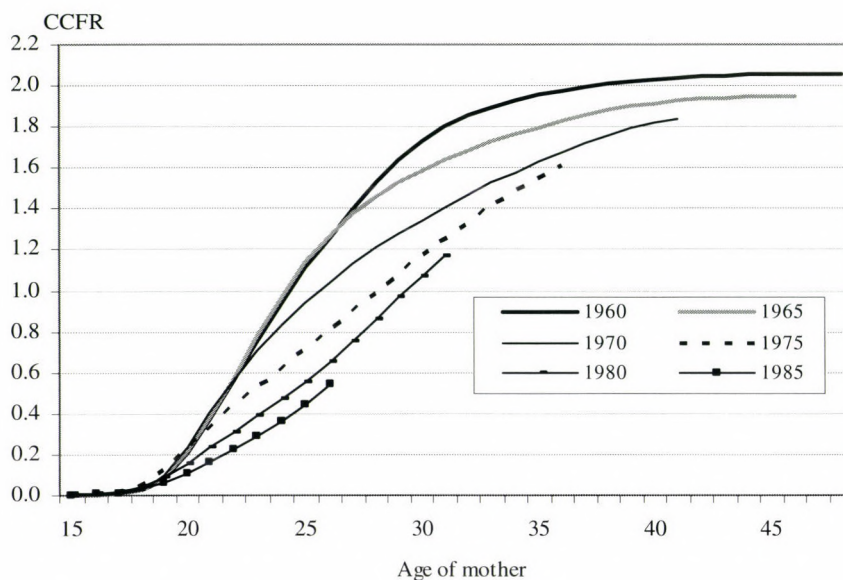
⁹ Despite these reservations, Bongaarts and Feeney (1998) performed an aggregate test of their adjustment formula against the fertility of US cohorts born from 1904 to 1941. The test consisted of comparing completed fertility rates of true cohorts with an average of the adjusted period TFRs over the years during which the true cohorts were in their childbearing years. The observed completed fertility rates turned out to be very close to the corresponding weighted averages of adjusted TFRs. The latter showed much better agreement with completed cohort fertility than the weighted averages of the conventional TFRs. Sobotka (2004b) reported a similar result based on Dutch data: with the cycles of booms and busts levelling off, the adjusted TFRs came very close to the completed cohort fertility in the long-term perspective.

to older ages. To cast light on this issue, we need to examine fertility changes from a cohort perspective.

Changes in Cohort Fertility

Previous analyses (Katus 1997, 2000) have demonstrated that low cohort fertility in Estonia is not a phenomenon that emerged during the societal transformation of the 1990s. Among the native population, fertility fell below replacement level in the cohorts born at turn of the twentieth century. The low fertility of these generations represented the end of a transition to controlled fertility that commenced in Estonia in the mid-nineteenth century. Judging from the census data, the decline halted at the level of 1.80–1.85 children per woman in the generations born in the 1910s. A further decrease, which brought completed fertility down to 1.72–1.75 children, occurred among women born in the 1920s. The prime childbearing years of these generations fell in the 1940s and 1950s during which time Estonia experienced one of the lowest fertility rates in the world (Frejka and Sardon 2004). Evidently, the Second World War and, in particular, a forceful rearrangement of the entire societal organisation in its aftermath, left a severe imprint on the lives of these generations. A recovery in completed fertility began with the cohorts born around 1930. The upward trend continued for 25–30 years and saw fertility return to replacement levels among women born in the 1950s and early 1960s.

To illustrate the change in cohort fertility among the younger generations, we provide age-cumulative fertility rates for the cohorts born between 1960 and 1985 (Figure IV). The 1960 birth cohort exemplifies the high fertility characteristic of the 1980s: women of this generation completed their reproductive careers with an average of 2.05 children. Fertility began to decrease in the following birth cohorts, but on a scale which was clearly less pronounced than the rapid fall in the period fertility indicators. Women in the 1965 cohort will likely complete their childbearing with an average of 1.95 children, i.e. 0.1 less than the top-ranking 1960 cohort. The 1970 cohort can be followed up until age 40, by which time women of this generation had given birth to 1.84 children. It seems likely that by the end of their childbearing careers, women born in 1970 will have an average of slightly more than 1.85 children – 0.2 less than the 1960 generation.



Source: Authors' calculations.

Figure IV
Cumulative cohort fertility rates
Estonia, female birth cohorts 1960–1985

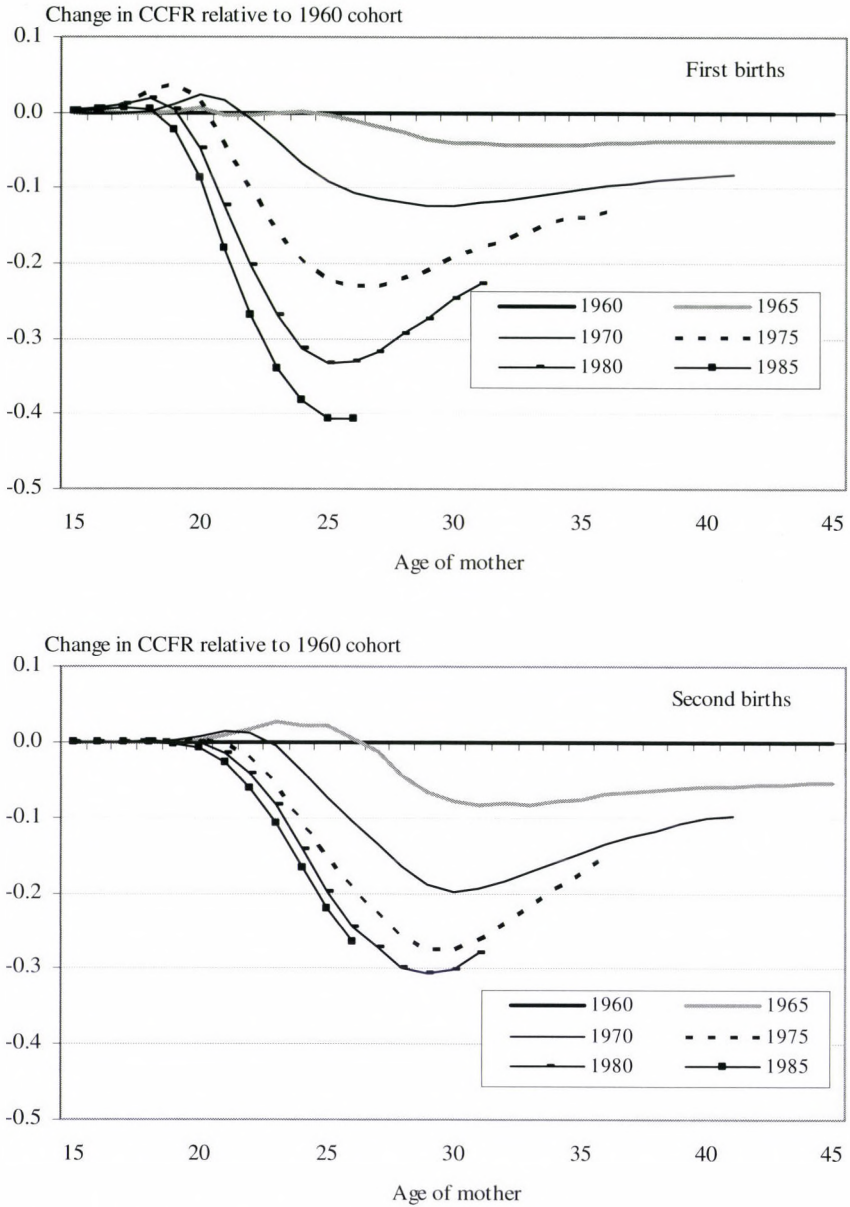
The reproductive careers of the three younger generations presented in the figure have taken place wholly in a transformed societal context. Women in the 1975 generation turned 18 in 1993, women born in 1980 turned 18 in 1998 and those in the 1985 cohort reached their eighteenth birthday in 2002. Compared to their counterparts in preceding cohorts, women in these generations have exhibited a pronounced shift towards delayed childbearing, which has pushed cumulative fertility rates downwards in the earlier stages of their reproductive years. The main factor determining completed fertility in these generations is the extent to which postponement is counterbalanced by a recuperation of births at older ages. If the amount of childbearing that was presumably postponed by a cohort early in its reproductive period is fully recuperated when these women are older, cohort fertility remains stable. Alternatively, if only a portion of the postponed births is recuperated later in a reproductive career, cohort fertility is bound to decline.

Figure V sheds some additional light on the balance between fertility postponement and recuperation, again with the 1960 birth cohort as a benchmark. Trends in first and second births are examined separately, in order to provide clearer insights than investigation of all births combined. We do not report the

results in detail for third and higher-order births, since the additional knowledge obtained would be limited because of the relatively small proportion of these births; in Estonia, third and higher-order births have constituted about one-fifth of the total number of births in recent years.

The data show that a decrease in the quantum of childbearing sets the pattern among women of the 1965 cohort. The deficit of births, relative to women born in 1960, occurred after age 25–26. Until then, the fertility of women born in 1965 was even higher than that of the previous cohort. For first births there are no signs of recuperation among the women of the 1965 cohort: between the ages of 25–30 the deficit increased to -0.04 children, and remained unchanged until the last years of the reproductive period. For second births, signs of weak recuperation can be discerned: after reaching a maximum (-0.08 children) between ages 30–35, the gap diminished slightly at higher ages.

In the following generations postponement gained momentum, although women born in 1970 and 1975 maintained slightly higher fertility rates at very young ages than their counterparts in the reference generation. Among the 1970 cohort, which can be followed up until age 40, the first-birth deficit expanded steadily until age 28, followed by stabilisation at the level of -0.12 children. After age 33, the deficit began to decrease, and by age 40 it was reduced to -0.08 children. Interestingly, the cycle of postponement and recuperation appears more pronounced for second births. The gap relative to the 1960 cohort increased to -0.20 children at age 30, but then decreased to -0.10 by age 40. For third and higher-order births (not reported in Figure V), the recuperation was almost complete with the deficit decreasing from 0.08 children at age 32 to 0.02 children at the end of observation period. Due to relatively strong recuperation at higher parities, women in the 1970 cohort made up almost half of the total deficit of births relative to the reference generation.



Source: Authors' calculations.

Figure V
*Cumulative cohort fertility rates
 Estonia, female birth cohorts 1960–1985*

Postponement among the 1975 birth cohort has led to an even greater deficit during the earlier part of women's reproductive years. The recuperation, however, begins at a younger age and becomes more vigorous. The deficit reached its maximum at age 26–27 at the level of -0.23 children, and was reduced to -0.13 by age 35. For second births, the gap increased until age 29 (-0.28 children), but by age 35 it had diminished to -0.15 children. If the rate of recuperation is sustained, women born in the mid-1970s might approach or equal the levels of the 1970 cohort, which would imply no further decline in completed fertility. In comparative perspective, a strong recuperation of second (and third) births seems to differentiate Estonia from the countries exhibiting a weaker recovery in fertility rates (Frejka and Sobotka 2008; Frejka 2008).

Women in the 1980 and 1985 birth cohorts postpone even further, but as they are still in their early- or mid-reproductive years the extent of fertility recuperation remains unknown. In order to cast additional light on the prospective fertility levels of these generations, we examine childbearing intentions based on evidence from the Estonian Generations and Gender Survey (GGS) in the following section.

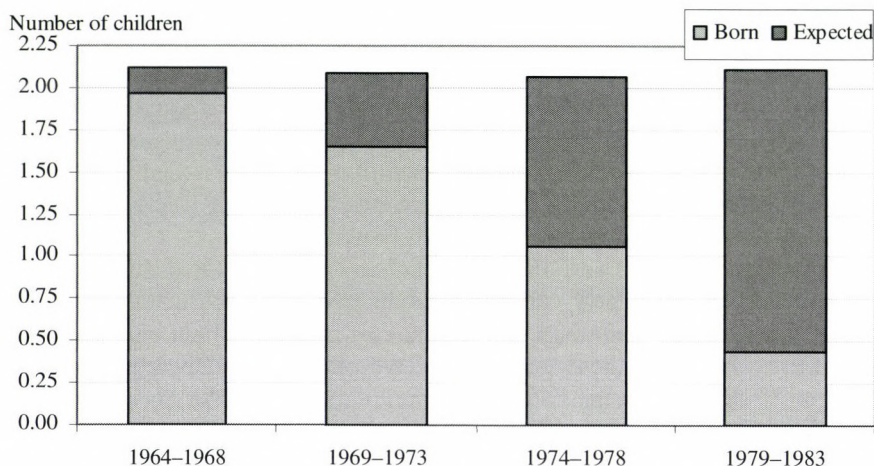
Childbearing Intentions

Figure VI shows the number of children expected and born to native women in the 1964–1983 birth cohorts. By the time of the survey in 2004–2005, women born in the 1960s had finished childbearing and the number of children already born largely determines the future size of their families. Among younger generations, the number of expected children makes an increasing contribution. The women of the 1964–1968 birth cohort had an average of 2.1 children. The number appears to be somewhat lower among the younger generations, but it nevertheless exceeds two children per woman. Women born in 1974–1978 reportedly expect to have 2.04 children; their counterparts in the 1979–1983 birth cohort expressed a preference for a slightly higher number.¹⁰

Such relatively high levels of intended fertility should be regarded with reservations, since numerous studies have documented a tendency for desired fertility to substantially exceed the levels ultimately achieved in modern settings. Nonetheless, as the number of expected children is connected to the specific life situation of an individual, it may be considered more realistic than

¹⁰ In the Estonian GGS, respondents of reproductive age were asked whether they intended to have an(other) child in the future. In addition to the responses “yes, certainly” and “no, certainly not”, the questionnaire included two intermediate categories: “yes, probably” and “no, probably not”. Responses concerning prospective childbearing were included in Figure VI only if the respondent had selected “yes, certainly”.

ideal family size, which primarily reflects a normative context in which fertility intentions are formed and expressed (Hagewen and Morgan 2005).



Source: Estonian Generations and Gender Survey.

Figure VI
Number of children born and expected
Estonia, native population, female birth cohorts 1964–1983

Further insight into anticipated childbearing can be obtained from an examination of the intended parity. The data (not shown here in detail) indicate that among the youngest GGS generations only a small fraction of women (six per cent) expect to remain permanently childless. This percentage, which is not markedly lower than the actual levels seen among women born in the 1940s and 1950s, reveals the persistence of fairly strong norms against childlessness in Estonia. The one-child preference also remains at levels characteristic of previous generations (slightly below 20 per cent). On the other hand, the two-child model has gained greater popularity among younger generations, at the expense of women who prefer larger families. Among the 1974–1978 and 1979–1983 birth cohorts, 23 and 21 per cent of women respectively expect to have three or more children. The actual proportion of women with three or more children in the 1959–1963 cohort is 32 per cent.

A comparison with evidence from the Estonian Fertility and Family Survey conducted in the mid-1990s suggests relative stability of childbearing intentions over the past decade (Puur, Sakkeus and Põldma 2009). Although the expectations reported in the surveys are a little too optimistic, the data do not reveal any significant shift towards a greater acceptance of childlessness or

preference for one-child families among the generations currently of prime reproductive age in Estonia.

3 PLAUSIBLE CORRELATES OF THE RECOVERY IN FERTILITY RATES

The evidence presented above corroborates the view that the shift towards delayed childbearing played a salient role in reducing fertility to very low levels in the 1990s. In the 2000s, however, only a relatively minor part of the recovery in fertility rates seems to have occurred as a result of a diminishing tempo effect. Estonia is still far from completing the “postponement transition”, and the increasing age of childbearing may be expected to depress period fertility measures for another 10–15 years. The evidence drawn from cohort measures indicates that completed fertility will likely reach 1.85 among generations born in the 1970s. This does represent a decline compared with the birth cohorts of the 1950s and early 1960s, but it is on a par with generations born earlier in the twentieth century. In comparative perspective, Estonia had the highest fertility rates among Central and Eastern European EU member states in the 2000s.

In a recent study based on tempo- and parity-adjusted total fertility rates, Bongaarts and Sobotka (2012) show that decreasing tempo distortions play a considerably more prominent role in the recent increase of period fertility than previous estimates using less sophisticated tempo-adjusted measures. According to them, in “most European countries there was little or no increase in the level of (quantum) of fertility between the late 1990s and 2008, while most of the observed TFR rise [...] can be attributed to diminishing pace of the postponement of childbearing”. Among the countries considered by Bongaarts and Sobotka, Estonia exhibited the highest proportion of the TFR increase that was not attributable to decreasing tempo distortion.

We assume that several contextual factors may have contributed to the relatively strong recovery of fertility rates in Estonia. Research into family policies has drawn attention to the role of institutional arrangements, such as publicly-funded and easily-accessible childcare, parental leave and labour market flexibility, which are seen to facilitate reconciliation of work and family life (Engelhardt and Prskawetz 2004; Rindfuss et al. 2010; Thévenon 2011). In Estonia, several positive developments can be observed in this regard. In the early 1990s it was feared that arrangements developed during the state socialist period to support the reconciliation of employment and parenthood would be seriously curtailed as a result of the societal transition. These concerns were partially realised when enrolment in public childcare decreased, particularly for very young children (0–2 years old). However, after reaching their lowest point in 1993, childcare enrolment rates started to recover and, before the end of the

century, exceeded the levels attained in the late 1980s. The gradual increase continued during most of the 2000s; in 2010, 70 per cent of two-year-olds, 86 per cent of three-year-olds and 90 per cent of four to five-year-olds attended public childcare (ESA 2012). Typically, children attend childcare institutions on a full-time basis (35–40 hours per week). With regard to childcare enrolment of children under the age of three – the age group in which the variation of enrolment rates is largest – Estonia ranks at the top (first or second to Slovenia, depending on year) among the former state socialist countries (UNECE 2012).

Parental leave, with guaranteed return to previous employment, was extended to three years in 1989, but the amount of income compensation remained low until the programme was thoroughly revised in 2004. New provisions included benefits equalling 100 per cent of income earned during the year preceding childbirth; the maximum amount is three times the average salary. In 2006 the duration of payment was extended from 11 to 14 months following childbirth, and in 2008 to 18 months. After the first 70 days, which are reserved for the mother, parents can share parental leave. Although the uptake of paternal leave is rising, it is still limited¹¹. Following the model of the Nordic countries, as of 2008, the parents of more than one child can retain their level of benefits without returning to the labour market between births, if the interval does not exceed 30 months. As a result of these revisions, the Estonian parental leave scheme is currently among the most generous of the OECD countries (OECD 2012).

Progress with regard to labour market flexibility appears mixed in Estonia. On the one hand, compared to the early 1990s the share of part-time work in total female employment has more than doubled. In 2010, 14.5 per cent of women worked part-time in Estonia; among the EU countries of Eastern Europe this was the second highest percentage next to Slovenia (Eurostat 2012). In addition, the number of employees who reported the possibility of taking days off for family reasons or to alter the starting and ending times of the working day increased after the mid-2000s (ESA 2012). On the other hand, despite this increase, the prevalence of part-time work remains low compared to the levels typically observed in the countries of Northern and Western Europe. As a combined outcome of the relatively high labour force participation rates and low prevalence of part-time work, Estonian women maintain particularly strong attachment to the labour market. On the eve of the current economic recession, their full-time equivalent employment rate (64.1 per cent, 2007) was the highest of all the EU member states (European Commission 2009). In part, the observed high employment rates may conceal a lack of choice, as nearly 20 per cent of mothers (aged 20–49, with at least one child under the age of 14) in full-time work and about ten per cent of fathers would

¹¹ In 2004, fathers constituted one per cent of benefit recipients. By early 2010, the proportion had increased to 6.5 per cent, decreasing somewhat in 2010–2011.

prefer to work less and dedicate more time to their children (Roosalu 2012). Although the majority of parents are satisfied with their current work and family arrangements, up to 20 per cent cannot achieve the preferred balance.

It has been assumed that the availability of a generous parental leave programme and public childcare have facilitated the strong recovery of fertility rates in Estonia in the 2000s (Goldstein, Sobotka and Jasilioniene 2009). Additional evidence in support of this assertion was found in a recent study of educational differentials in childbearing (Klesment and Puur 2010). An analysis of GGS data demonstrated the consistent positive and statistically significant effect of high educational attainment on intensity of second births in Estonia, before as well as after the societal transition of the 1990s. This finding suggests that there are contextual factors that have more than compensated for the higher opportunity costs of childbearing among women with tertiary education. The salience of the positive association between education and childbearing is underscored by the fact that the fertility increase experienced in Estonia since the early 2000s has been driven exclusively by highly educated women. In 2000–2009, the number of births among mothers with higher education increased 2.8 times, whereas the number of births to mothers with low or medium education decreased by nine per cent (ESA 2012). Although the change is partially attributable to the rising proportion of highly educated women, there has been a noticeable increase in fertility among the latter group. There are reports that modification of the parental leave programme (retaining the previous levels of benefits if the next child is born within 30 months) has resulted in the compression of birth intervals similar to “speed premium” effects observed earlier in Nordic countries (Vörk, Karu and Tiit 2009).

Favourable macro-economic development should also be included among the plausible correlates of the recovery in fertility rates. The importance of economic conditions in increasing TFR has been demonstrated by numerous studies (e.g. Kravdal 2002; Sobotka, Skribekk and Philipov 2011). Estonian economic reforms resulted in a steep decline in per capita GDP during the early stage of transition. However, the recovery of macro-economic indicators later became pronounced, and GDP levels have risen more rapidly than in many other former socialist countries since the mid-1990s (Klesment 2010). It is estimated that in 2001 per capita GDP returned to the 1990 level, and in 2007 it exceeded that benchmark by 63 per cent. Just prior to the current economic recession, the country’s per capita gross national product was 68 per cent of the EU average, ranking fourth amongst Eastern European EU member states (UNECE 2012). Favourable macro-economic trends in the 2000s were paralleled by the increase in employment, decrease of unemployment, and a general rise in living standards of the population; all these developments may be regarded as conducive to higher fertility.

Although the factors discussed above are relevant, they may not completely account for the childbearing pattern observed in Estonia. This can be demonstrated by comparing Estonia with other Central and Eastern European countries that had similar institutional frameworks in the 1970s and 1980s. As revealed by analyses of differential fertility, none of these countries exhibited a persistent positive educational gradient for second births during that period (Oláh 2003; Koytcheva 2006; Rieck 2006; Muresan 2007; Perelli-Harris 2008; Billingsley 2011). Therefore, additional correlates should be sought from commonalities between Estonia and countries that display a positive relationship between higher education and second (and third) births.

In this context, Estonia is notable for its advanced position with regard to the spread of new types of families, and the extensive disconnection of childbearing from marriage. Estonia has been amongst the leading nations in Europe since the beginning of the 2000s with respect to the proportion of extra-marital births.¹² In a broader framework, it seems conceivable that this ranking and the country's comparatively high fertility are not accidental, as during the past decade or more, higher fertility has tended to accompany the decline of marriage and an increasing diversity of living arrangements in Europe. Lesthaeghe and Surkyn (2002) envisaged a similar scenario for the countries of Central and Eastern Europe. They posited that "those countries with the faster rate of transition in household structures will be the first to move to fertility recuperation [...] and hence to be the first to recover to more acceptable levels of sub-replacement fertility". The evidence for Estonia suggests that their hypothesis is valid.

This brings us to the idea of the continuity or path dependence of demographic development, which may manifest itself over long periods of time, notwithstanding intervening changes in socio-economic regimes. If the disconnection of childbearing from marriage and the spread of new types of families are hallmarks of the Second Demographic Transition (SDT), then Estonia, with its contemporary pattern of family formation and childbearing, qualifies for inclusion amongst its forerunners. In support of this argument, recent analyses on union formation have shown that the shift towards new types of family formation in Estonia began in the 1960s, the same period during which the SDT emerged in the countries of Northern and Western Europe (Katus et al. 2007; Puur, Sakkeus and Pöldma 2009). In Estonia, however, these novel behavioural patterns were suppressed by the state socialist environment, and could only fully manifest themselves in the 1990s. This would explain how it was possible for Estonia to catch up so quickly with the forerunners of the SDT in this regard. In the longer-term historical perspective, the concept of path dependence

¹² In recent years, the proportion of non-marital births has exceeded 59 per cent, ranking second in Europe after Iceland. In 2009, the figure for the native population reached 66 per cent. The overwhelming majority of non-marital births are to cohabiting couples.

takes into account asynchronism between countries in the transition to a modern demographic regime and parity-specific family limitation, which started in the nineteenth century (Coale 1994; Coale and Watkins 1986). Viewed in this light, the comparatively high fertility levels of recent years, and the positive effect of high educational attainment on the incidence of second births, could represent characteristics of the fertility regime that are commonly associated with the countries of Northern and Western Europe.

To conclude, we are inclined to think that the relatively strong recovery of fertility rates in Estonia in the 2000s resulted from the combined effect of several factors, including family policies that have reduced the opportunity costs of parenthood, economic growth that has secured high levels of employment for the population, and the country's relatively advanced position in respect to the Second Demographic Transition. These interpretations are in part speculative and need to be further researched, but current evidence leads us to conclude that lowest-low fertility is unlikely to recur on a large scale. Nevertheless, low fertility remains a challenge to the long-term sustainability of economies and welfare systems of many European countries, particularly in Southern and Eastern parts of the continent. An important key to finding solutions is an improved understanding of cross-country differentials in fertility levels, which have increased rather than decreased since the late 1990s. In this context, in-depth studies of patterns of childbearing in the countries experiencing strong recovery of fertility rates may offer valuable insights.

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REFERENCES

- Billingsley, S. 2011. Economic Crisis and Recovery: Changes in Second Birth Rates within Occupational Classes and Educational Groups. *Demographic Research* 24(16), 375–406.
- Bongaarts, J. 2002. The End of Fertility Transition in the Developed World. *Population and Development Review* 28(3), 419–443.
- Bongaarts, J. and Feeney, G. 1998. On the Quantum and Tempo of Fertility. *Population and Development Review* 24(2), 271–291.
- Bongaarts, J. and Feeney, G. 2000. On the Quantum and Tempo of Fertility: Reply. *Population and Development Review* 26(3), 560–564.

- Bongaarts, J. and Sobotka, T. 2012. A Demographic Explanation for the Rise in European Fertility. *Population and Development Review* 38(1), 83–120.
- Coale, A. 1994. Nuptiality and Fertility in USSR Republics and Neighboring Populations. In Lutz, W., Scherbov, S. and Volkov, A. (eds.): *Demographic Trends and Patterns in the Soviet Union before 1991*. London, New York, Routledge, 3–17.
- Coale, A. and Watkins, S. (eds.): 1986. *Fertility Decline in Europe: The Revised Proceedings of a Conference on the Princeton European Fertility Project*. Princeton, Princeton University Press.
- Coleman, D. 2004. Why We Don't Have to Believe Without Doubting in the 'Second Demographic Transition': Some Agnostic Comments. *Vienna Yearbook of Population Research* 2004, 11–24.
- Council of Europe 2006. *Recent Demographic Developments in Europe 2005*. Strasbourg, Council of Europe Publishing.
- Engelhardt, H. and Prskawetz, A. 2004. On the Changing Correlation between Fertility and Female Employment over Time and Space. *European Journal of Population* 20(1), 35–62.
- ESA 2012. *Statistics Estonia. Statistical Database*. Available: <http://pub.stat.ee/px-web.2001/dialog/statfile1.asp>. Accessed: 18.03.2012.
- European Commission 2009. *Employment in Europe 2009*. Luxembourg, Office for Official Publications of the European Communities.
- Eurostat 2012. *Statistics Database*. Available: <http://epp.eurostat.ec.europa.eu>. Accessed: 20.03.2012.
- Frejka, T. 2008. Parity Distribution and Completed Family Size in Europe: Incipient Decline of the Two-Child Family Model? *Demographic Research SC7: Childbearing Trends and Policies in Europe* 19, 47–72.
- Frejka, T. and Sardon, J-P. (eds.): 2004. *Childbearing Trends and Prospects in Low Fertility Countries: A Cohort Analysis*. Dordrecht, Kluwer Academic Publishers.
- Frejka, T. and Sobotka, T. 2008. Fertility in Europe: Diverse, Delayed and Below Replacement. *Demographic Research SC7: Childbearing Trends and Policies in Europe* 19(3), 15–46.
- Goldstein, J., Lutz, W. and Testa, M. R 2003. The Emergence of Sub-Replacement Fertility Ideals in Europe. *Population Research and Policy Review* 22(1–2), 479–496.
- Goldstein, J. R., Sobotka, T. and Jasilioniene, A. 2009. The End of “Lowest-Low“ Fertility? *Population and Development Review* 35(4), 663–699.
- Hagewen, K. J. and Morgan, S. P. 2005. Intended and Ideal Family Size in the United States, 1970–2002. *Population and Development Review* 31(3), 507–527.
- Hajnal, J. 1965. European Marriage Patterns in Perspective. In Glass, D. V. and Eversley, D. E. (eds.): *Population in History: Essays in Historical Demography*. London, Edward Arnold, 101–143.
- Katus, K. 1997. Long-Term Fertility Development in Baltoscandia. *Yearbook of Population Research in Finland* 34, 18–35.
- Katus, K. 2000. General Patterns of Post-Transitional Fertility in Estonia. *Trames* 4(3), 213–230.
- Katus, K. 2003. Post-Transitional Fertility Development: New Perspectives Introduced by Central and East European Nations. In Jozwiak, J. and Kotowska, I. E. (eds.):

- Population of Central and Eastern Europe: Challenges and Opportunities*. Warsaw, Statistical Publishing Establishment, 117–138.
- Katus, K., Puur, A., Põldma, A. and Sakkeus, L. 2007. First Union Formation in Estonia, Latvia and Lithuania: Patterns across Countries and Genders. *Demographic Research* 17, 247–300.
- Kirk, D. 1996. Demographic Transition Theory. *Population Studies* 50(3), 361–387.
- Klesment, M. 2010. *Fertility Development in Estonia during the Second Half of the 20th Century: The Economic Context and its Implications*. Dissertations in Social Sciences No. 46. Tallinn, Tallinn University.
- Klesment, M. and Puur, A. 2010. Effects of Education on Second Births before and after Societal Transition: Evidence from the Estonian GGS. *Demographic Research* 22, 891–932.
- Kohler, H. and Philipov, D. 2001. Variance Effects in the Bongaarts-Feeney Formula. *Demography* 38(1), 1–16.
- Kohler, H., Billari, F. and Ortega, J. 2002. The Emergence of Lowest-Low Fertility in Europe during the 1990s. *Population and Development Review* 28(4), 641–680.
- Kohler, H. and Ortega, J. 2002. Tempo-Adjusted Period Parity Progression Measures, Fertility Postponement and Completed Cohort Fertility. *Demographic Research* 6, 92–144.
- Koytcheva, E. 2006. *Socio-Demographic Differences of Fertility and Union Formation in Bulgaria before and after the Start of the Societal Transition*. Ph.D. Dissertation. Rostock, University of Rostock.
- Kravdal, Ø. 2002. The Impact of Individual and Aggregate Unemployment on Fertility in Norway. *Demographic Research* 6(10), 263–294.
- Lesthaeghe, R. 1995. The Second Demographic Transition in Western Countries: An Interpretation. In Mason, K. and Jensen, A.-M. (eds.): *Gender and Family Change in Industrialised Countries*. Oxford, Clarendon Press, 17–62.
- Lesthaeghe, R. 2010. The Unfolding Story of the Second Demographic Transition. *Population and Development Review* 36(2), 211–251.
- Lesthaeghe, R. and van de Kaa, D. J. 1986. Twee demografische transitities? In van de Kaa, D. J. and Lesthaeghe, R. (eds.): *Bevolking: Groei en Krimp*. Deventer, Van Loghum-Slaterus, 9–24.
- Lesthaeghe, R. and Surkyn, J. 2002. New Forms of Household-Formation in Central and Eastern Europe: Are They Related to Newly Emerging Value Orientations. *Economic Survey of Europe*. Geneva, United Nations Economic Commission for Europe, 197–216.
- Lutz, W., Skribekk, V. and Testa, M. R. 2006. The Low-Fertility Trap Hypothesis: Forces That May Lead to Further Postponement and Fewer Births in Europe. *Vienna Yearbook of Population Research* 2006, 167–192.
- Muresan, C. 2007. *Educational Attainment and Second Births in Romania*. Rostock, Max Planck Institute for Demographic Research. (MPIDR WP 2007–028).
- Ni Brolchain, M. 1993. East-West Marriage Contrasts, Old and New. In Blum, A. and Rallu, J. (eds.): *European Population II. Demographic Dynamics*. Paris, John Libbey Eurotext, 461–479.
- Notestein, F. 1953. The Economics of Population and Food Supplies: Economic Problems of Population Change. In *Proceedings of the Eighth International Conference of Agricultural Economists*. Oxford, Oxford University Press, 13–31.

- OECD 2012. *OECD Family Database*. Available: <http://www.oecd.org/social/family/database>. Accessed 4.04.2012.
- Oeppen, J. and Vaupel, J. W. 2002. Broken Limits to Life Expectancy. *Science* 296(10), 1029–1031.
- Oláh, L. Sz. 2003. Gendering Fertility: Second Births in Sweden and Hungary. *Population Research and Policy Review* 22, 171–200.
- Perelli-Harris, B. 2008. Family Formation in Post-Soviet Ukraine: Changing Effects of Education in a Period of Rapid Social Change. *Social Forces* 87(2), 1–28.
- Perelli-Harris, B. and Gerber, T. P. 2011. Non-Marital Childbearing in Russia: Second Demographic Transition or Pattern of Disadvantage. *Demography* 48(2), 317–342.
- Puur, A., Sakkeus, L. and Põldma, A. 2009. Change and Continuity in Partnership and Childbearing Patterns: Early Evidence from the Estonian GGS. In Stankuniene, V. and Jasilionis, D. (eds.): *The Baltic Countries: Population, Family and Family Policy*. Vilnius, Institute for Social Research, 127–152.
- Rieck, D. 2006. *Transition to Second Birth: The Case of Russia*. Rostock, Max Planck Institute for Demographic Research. (MPIDR WP 2006–036).
- Rindfuss, R. R., Guilkey, D. K., Morgan, P. S. and Kravdal, Ø. 2010. Child-Care Availability and Fertility in Norway. *Population and Development Review* 36(4), 725–748.
- Roosalu, T. 2012. *Taking Care of Children and Work in Estonian Society: Running out of Post-Socialist Time?* Dissertations in Social Sciences No. 58. Tallinn, Tallinn University.
- Smallwood, S. 2002. The Effect of Changes in Timing of Childbearing on Measuring Fertility in England and Wales. *Population Trends* 109, 36–45.
- Sobotka, T. 2003. Re-Emerging Diversity: Rapid Fertility Changes in Central and Eastern Europe after the Collapse of the Communist Regimes. *Population. English Selection* 58(4–5), 451–485.
- Sobotka, T. 2004a. *Postponement of Childbearing and Low Fertility in Europe*. Groningen, Dutch University Press.
- Sobotka, T. 2004b. Is Lowest-Low Fertility in Europe Explained by the Postponement of Childbearing? *Population and Development Review* 30(2), 195–220.
- Sobotka, T. 2008. The Diverse Faces of the Second Demographic Transition in Europe. *Demographic Research* 19, 171–224.
- Sobotka, T., Skirbekk, V. and Philipov, D. 2011. Economic Recession and Fertility in the Developed World. *Population and Development Review* 37(2), 267–306.
- Testa, M. R. 2007. Childbearing Preferences and Family Issues in Europe: Evidence from the Eurobarometer 2006 Survey. *Vienna Yearbook of Population Research* 2007, 357–379.
- Thévenon, O. 2011. Family Policies in OECD Countries: A Comparative Analysis. *Population and Development Review* 37(1), 57–87.
- UNECE 1999. Fertility Decline in Transition Economies, 1982–1997: Political, Economic and Social Factors. *Economic Survey for Europe*, 1. New York and Geneva, United Nations Economic Commission for Europe, 181–194.
- UNECE 2000. Fertility Decline in Transition Economies, 1989–1998: Economic and Social Factors Revisited. *Economic Survey for Europe*, 1. New York and Geneva, United Nations Economic Commission for Europe, 189–207.

- UNECE 2012. *UNECE Statistical Database*. Available: <http://w3.unece.org/pxweb/dialog/>. Accessed: 20.03.2012.
- Vallin, J. and Meslé F. 2009. The Segmented Trend Line of Highest Life Expectancies. *Population and Development Review* 35(1), 159–187.
- Van Imhoff, E. 2001. On the Impossibility of Inferring Cohort Fertility Measures from Period Fertility Measures. *Demographic Research* 5, 23–64.
- Van Imhoff, E. and Keilman, N. 2000. On the Tempo and Quantum of Fertility: Comment. *Population and Development Review* 26(3), 549–553.
- Van de Kaa, D. J. 1987. Europe's Second Demographic Transition. *Population Bulletin* 42(1), 1-59.
- Võrk, A., Karu, M. and Tiit, E.-M. 2009. *Vanemahüvitis: kasutamine ning mõjud tööturu- ja sündimuskäitumisele 2004–2007* [Parental Leave Benefit: Take-up and Impact on Labour Market and Fertility Behaviour 2004–2007]. Tallinn, Praxis.
- Zeng, Y. and Land, K. 2001. A Sensitivity Analysis of the Bongaarts-Feeney Method for Adjusting Bias in Observed Period Total Fertility Rates. *Demography* 38(1), 17–28.

FAMILY POLICY AND DEMOGRAPHIC EFFECTS: THE CASE OF GERMANY¹

MARTIN BUJARD²

ABSTRACT: *In the last decade a remarkable modernisation of German family policy has been initiated. In the meantime the Total Fertility Rate (TFR) has remained persistently low. Some OECD country comparisons highlight the impact of policy measures on fertility levels, but this thesis is challenged by micro-level analyses. Regardless, the causal mechanisms, the institutional setting and the time lag of possible effects still remain under-investigated.*

This paper outlines recent changes in German family policy with a special focus on institutional characteristics and regional heterogeneity. The findings reveal contradictions between the institutional settings of German family policy – characterised by horizontally and vertically split competences – and the bounded rationality characterising fertility decisions. The recent expansion of childcare provision and a new parental leave policy stand in contrast to relics of the past, such as half-day schools and the male-breadwinner oriented tax system. This paper underlines the role of the institutional context, the legitimisation of family policies and the interaction of different policy measures. Furthermore, it highlights the process character of changes resulting in remarkable time lags between policies and effects.

As such, studies on the impact of family policy are insufficient if they merely focus on short-term effects or a limited set of policy measures, and the unvarying TFR in Germany does not necessarily contradict the impact thesis. Apart from that, age-specific fertility rates show a dynamic recuperation process. Both the time-lag thesis and the broader policy context have implications for future research on the nexus of family policy and fertility.

1 IMPROVING FAMILY POLICY AND FLAT-RATE TFR IN GERMANY

The difference in fertility levels in Europe and OECD countries is quite high. In 2008, the period fertility rate ranged between 2.18 in New Zealand (highest) and 1.19 in South Korea (lowest), with a mean of 1.71 for the entire OECD (OECD 2011). In Europe, the variance is similarly remarkable, with 2.14 in Iceland (highest) and 1.32 in the Slovak Republic (lowest). This inter-

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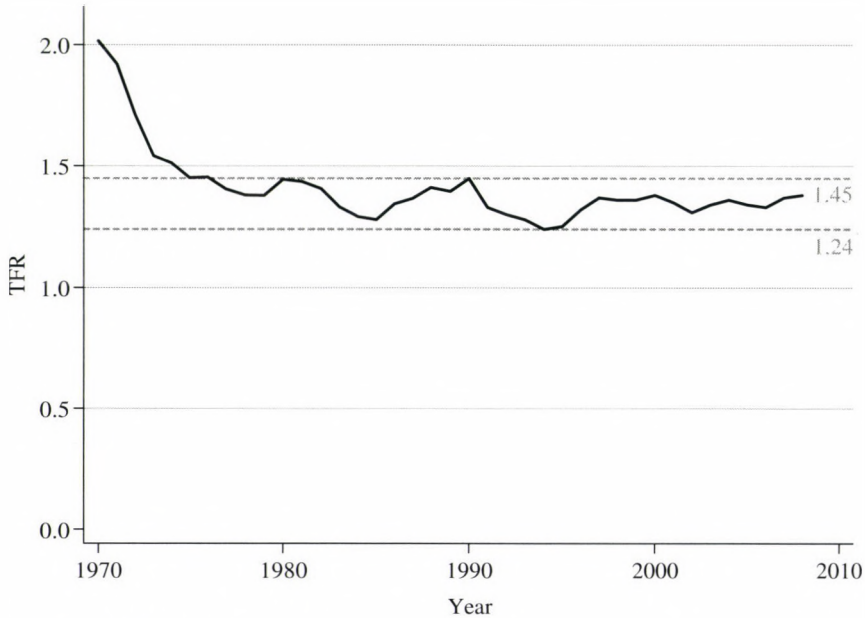
national variance, which is based on comparison of national-level indicators, has mainly been explained by the role of family policy and the labour market (Castles 2003; Bujard 2011a; Luci and Thévenon 2012). Whether there are any (positive) effects of different family policies on fertility at the macro level is still controversial (Adserà 2004; d'Addio and d'Ercole 2005; Gauthier and Hatzius 1997; Sleebos 2003, for an overview see Gauthier 2007). Additionally, the impact thesis is challenged by some micro analyses (e.g. Neyer and Anderson 2008; Spieß 2012). Within European regions there are similar patterns of both economic–institutional contexts and fertility ideals (Gauthier and Philipov 2008). Summarising the research of TFR determinants in OECD country comparisons, structural factors like economic performance and policy measures seem to have a strong impact on different countries' fertility levels, although the causal impact still remains under-investigated.

Against this background, the German case is particularly interesting. During the past few years there has been considerable change in both family policy and the labour market. Considering childcare policies until the beginning of the twenty-first century, Germany was way behind most other OECD countries, but started to catch up in a remarkable manner in the last eight years initiated by the “Tagesbetreuungsausbaugesetz” [law of day-care expansion, abbr.: TAG] (Deutscher Bundestag 2004) and the “Kinderförderungsgesetz” [law of child support, abbr.: KiföG] (Deutscher Bundestag 2008). The rate of childcare enrolment doubled within five years and reached 23.1 per cent in March 2010 (Statistisches Bundesamt 2010), which corresponds to 472,000 children of less than three years of age in German day-care. Furthermore, the TAG guarantees day-care for all children of one year of age or older starting in 2013 – the goal is a rate of 35 per cent until 2013. In 2006 the “Bundeselternzeitgesetz” [federal law of parental leave benefit and parental leave, abbr.: BEEG] (Deutscher Bundestag 2006) introduced an income-related parental leave benefit in Germany of up to EUR 1,800 net a month for 14 months, with two months of exclusive *paternity* leave. Furthermore, this policy expansion was accompanied by a substantial drop in unemployment: from 8.2 per cent in January 2000 to 6.6 per cent in December 2010, while the EU27 mean rose from 9.0 to 9.5 per cent during the same period (Eurostat 2011).

However, these two major paradigm changes in German time and infrastructure policy have been accompanied by stagnant fertility rates. Since 1975, the German TFR has sat tightly between 1.24 and 1.45, as can be seen in Figure I (with exception of the GDR, which is not considered here).³ Between 1996

³ This article refers to the Federal Republic of Germany, which contains the former West Germany until 1990 and the Unified Germany since 1990. This implies a continuity of analysed institutions and goes in-line with OECD databases. If a differentiation between East and West Germany after unification is reasonable, it will be specified as regarding childcare in Section 3.2, or in order to allow for long-term comparison of income as in Figure IV.

and 2009 the range is even narrower, with rates between 1.321 and 1.384. The cohort fertility rate until the age of 40 shows a continuous drop from 1.637 for the 1959 cohort down to 1.446 for the 1969 cohort (Human Fertility Database 2011).



Source: OECD 2010c.

Figure I
The horizontal TFR line in the Federal Republic of Germany

Does this contrast of dynamically changing family policy and stable fertility challenge the policy impact thesis? Following recent changes of policy, why cannot we observe a demographic effect? Is Germany a special case? Were policies chosen improperly? Or, is more time required for the onset of effects?

This paper gives an in-depth description of the main characteristics of German family policy in an international comparison, in which continuities, changes and inconsistencies of the welfare state model are highlighted. The emphasis is on the institutional setting, which plays an important role in this context, although it is rarely considered in fertility research. An additional focus is on the time lags between policy change and effects on fertility, which can be explained by the bounded rationality of fertility behaviour. Furthermore, family policy is illuminated in the context of economic change over the last decades and the characteristic German discussion about the demographic le-

gitimisation of family policy. The deflections of these crucial points for understanding the policy–fertility nexus in Germany aim to give some new insights which are relevant to quantitative macro-level research in international comparison.

2 THE MAIN INSTITUTIONAL CHARACTERISTICS OF GERMAN FAMILY POLICY

Before taking a look at specific family policies, it is worth analysing the institutional setting. This is characterised by a complicated mix of horizontal and vertical competences. Germany is a federal state with 16 “Bundesländer” (states), which play an important role in the implementation of family policy (see also Bonoli 2008 for Switzerland). In several cases the competence for policies is split between the federal and state level and sometimes even the regional level is involved. For some benefits, such as alimony credit and tax benefit for childcare, the competence is split between all three levels. For instance, the financing of child allowances (“Kindergeld”), student loans (“BAföG”) and parental leave is organised by both the federal and state level. However, for some infrastructure policies, such as childcare and schools⁴, the federal level has not had any competence since the latest reform of federalism in 2006.

It is extremely helpful to analyse family policy using the “time, infrastructure and money” framework for two reasons, and this has been common in German political and scientific discourse since the Seventh Report on Family by the German Ministry for Family, Senior Citizens, Women and Youth of 2006 (BMFSFJ 2006; Bertram et al. 2005). Firstly, it takes up the perspective of the family. In contrast to the OECD typology of leave schemes, education and care, family benefits and employment policies (e.g. Lohmann et al. 2009), which adopts the institutional perspective, the family perspective is useful for analysing fertility decisions, as it considers the broader policy framework. Secondly, “the time, infrastructure and money” framework is more general and therefore open to some policies which are not considered in the common frameworks. Examples of this include family law such as right of access, health policy like the non-smokers protection act⁵, health insurance or mother–child

⁴ The competence for schools is relevant for family policy because in Germany most schools are only half-day schools without lunch, which is an obstacle to mothers participating in the labour market.

⁵ The non-smokers protection act allows families to be in public places – such as in restaurants, cafes, trains or official buildings – without children having to experience passive smoking.

convalescent care, housing policy for families, education vouchers and family centres.

Following this broader framework of family policy, the extent of the split of competences becomes even more obvious. This is apparent not only at the vertical level of federal, state and regional actors, but also at the horizontal level. The competence of the 149 social benefits of German family policy is divided between different departments (Bujard 2011b).⁶ For 24 of them, the competence lies with the Ministry for Family, Senior Citizens, Women and Youth; for 51, it lies with the Federal Ministry of Labour and Social Affairs; for 23, it lies with the Federal Ministry of Finance; for 21, it lies with the Federal Ministry of Health; for 15, it lies with the Federal Ministry of Education and Research and for eight each with the Ministry for Regional Planning, Building and Urban Development and the Federal Ministry of the Interior. This institutional fragmentation is a key characteristic of German family policy and it clearly complicates development of a coherent family policy.

Looking at institutions in the context of an international comparison, there are further factors that are relevant for understanding different fertility levels, for example, the tradition of women's right to vote and to stand in elections, the proportion of women in parliament, political rights, the number of veto players, the influence of the constitutional court, the party system, public-sector employment and labour relations. The collapse of economic and political institutions is a factor that is especially relevant for Eastern European countries. In addition, historic cultural institutions also play an important role in the policy-fertility nexus, especially the Catholic (or Protestant) tradition, which correlates significantly negative (positive) with the TFR and the childcare enrolment rate. Germany is characterised equally by both traditions: 30.5 per cent are Roman Catholic, 29.5 per cent are Protestant and 35 per cent are undenominational.

An important – though frequently overlooked – historical factor is the abuse of family policy for natalistic reasons by fascist regimes. These perfidious and racist policies towards families, encouraging births only for military reasons, still cast a cloud over German family policy, even if encouragement of births is socially legitimated today. This historical abuse factor as a determinant of fertility is also an influencing factor in other countries with a fascist history: Spain, Portugal, Italy, Japan, Germany and Austria all have period fertility rates as low as 1.3 or 1.4. Family policies encouraging the birth of a third or fourth child would therefore be expected to have a lower effect than in other countries, such as France, Sweden or the USA.

⁶ This horizontal fragmentation is not inconvenient compared to other welfare states, but the high amount of family related benefits is.

3 RECENT CHANGES IN FAMILY POLICY: TIME, INFRASTRUCTURE AND MONEY IN INTERNATIONAL COMPARISON

Global indicators are not particularly suitable for showing changes in German family policy. According to the OECD, German expenditure on family policies adds up to three per cent of GDP. However, the financial tableau of the German Ministry for Family, Senior Citizens, Women and Youth calculated EUR 114.8 billion for 2008 (BMFSFJ 2010), which adds up to 4.6 per cent of GDP.⁷ With a broad definition (including public expenditure related to wedlock etc.) the share reaches 7.5 per cent of GDP. However, the change of German family policy can be described as a shift from a predominantly transfer-focused policy to rather more infrastructure- and time-focused policies.⁸ These new policies are dedicated to paving the way for reconciliation of work and care, especially for parents of children of one or two years of age. These changes can be interpreted as a life-course policy and are both cause and effect of changing family norms.

3.1 Time Policy: Path Change

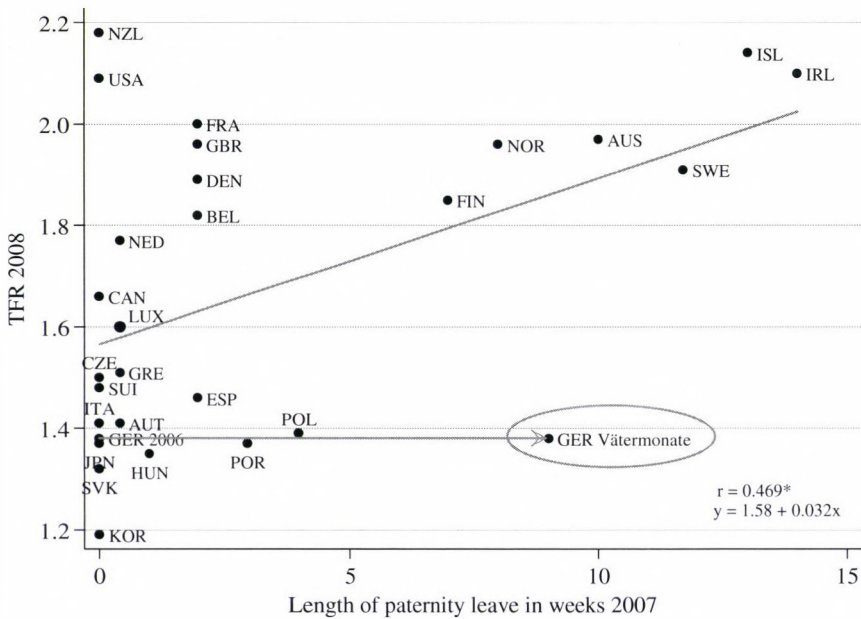
As a result of the BEEG, parents in Germany have received an income-related parental leave benefit for 14 months after birth since the first of January 2007. It is designed for both partners and supports parenthood during the period when intensive care is necessary. The idea of this policy follows the Seventh Report on Family (BMFSFJ 2006), which underlined equality of work and care in society. The conditions for this parental leave benefit are that the parent takes care of the child him/herself and may at the same time work up to 30 hours a week. Its minimum is EUR 300; with a previous net income of up to EUR 1,200 the amount is 67 per cent, and with a previous income of up to EUR 2,769 the amount is 65 per cent. Parents with a previous income of between EUR 2,769 and EUR 500,000 receive the maximum of EUR 1,800 parental leave benefit each month. Additionally, there is a bonus of ten per cent or a minimum of EUR 75 for each additional child. While the former parental leave policy, the “Bundeserziehungsgeld”, was set at EUR 300 a month for two years – or alternatively EUR 450 a month for one year –, the new parental leave benefit is far more generous and at the same time promotes job re-entry after

⁷Differences between the indicators used by the OECD and BMFSFJ are significant. Both take into account tax benefits, but the OECD does not take into account social security benefits and some other financial benefits.

⁸See Thévenon (2011) for an international comparison of family policies and recent changes.

one year.⁹ This higher rate of compensation for families with children younger than 14 months is accompanied by an expansion of childcare facilities (see Section 3.2).

A specific component of parental leave, aiming at gender equality, is the regulation that one partner can only use 12 of the 14 months. *De facto*, this means a minimum of two months paternity leave, which encourages fathers to take at least two months of the income-related leave so that this offer does not expire. In Germany the term “Vätermonate” (‘months for fathers’) has been established for this particular regulation. Figure II illustrates that this German paternity leave is comparable in terms of length with other Northern European countries. Compared with the OECD 28, Germany’s new paternity leave stands out amongst the continental Western European family of nations (Castles 1993; Schmidt 1993).



Source: BMFSFJ 2006, OECD 2010a, 2010c.

Figure II
Length of paternity leave in OECD countries

⁹ The expenditure of the former parental leave policy was EUR 2.8 billion in 2006, and the expenditure of the parental leave benefit introduced in 2007 was EUR 4.2 billion in 2008.

Unpaid parental leave lasts up to three years, of which 12 months can be used up until the eighth birthday of the child. In the first three years there is also employment dismissal protection for parents. Furthermore, there are four important time policies in Germany: (1) some German states pay additional parental leave benefits on top of the federal leave benefits; (2) Germany has a maternity leave of a duration of 14 weeks; (3) since 2001 parents and non-parents have an entitlement to part-time work; (4) the public old-age pension insurance accounts for parenthood of children born after 1991 in the same way as the amount of three years average contribution. Additionally, this insurance upgrades low contributions of parents up to the average so long as children are younger than ten years old (but only for the caring parent, which is usually the mother).¹⁰

3.2 Infrastructure Policy: Path Change and Regional Heterogeneity

For decades there was a rudimentary day-care infrastructure in West Germany for children younger than three years of age and a universal half-day system of *kindergarten* and school. Most schools only held classes from 08:00 to 13:00. In contrast, in the GDR up until 1990 and in East Germany after German unification there was a well-developed day-care infrastructure. The reconcilability of work and family was prevented in West Germany because of a lack of childcare; on the contrary, in East Germany families faced a lack of jobs.

Since the beginning of the twenty-first century, the German federal government has initiated an ambitious extension of childcare policy. This vast policy change was supported by coalitions led by the Social Democrats (1998–2005) and Christian Democrats (since 2005). Milestones of this policy were the laws TAG and KiföG. The quotient of childcare offered by day-care centres and the number of children younger than three years of age was 8.6 per cent on 31 December 2002 (without day child-minders; Statistisches Bundesamt 2011a). The data about child placement including day-care centres and child-minders, which are available since 2006, show a rapid increase from 13.6 per cent in 2006 to 15.5 per cent in 2007, 17.8 per cent in 2008 and 20.4 per cent in 2009, and reaching 23.1 per cent in 2010 (Statistisches Bundesamt 2010, 2011b). Furthermore, the KiföG guarantees childcare places for children older than 12 months beginning from 2013 and the rate for 0–2 years is expected to be around 35 per cent in 2013.

In 2003 an investment programme was established called “Zukunft, Bildung und Betreuung” [Future, education and care, abbr.: IZBB] to start transforming

¹⁰ Some policies categorised as time (or infrastructure) policies can also be categorised as financial transfers.

the half-day school system into a full-time school system. This programme demonstrates German federalism very well, as the federal government invested EUR 4 billion in the development of full-time schools while the competence for schools lies at the German states level. Between 2003 and 2007, 7,200 schools benefitted from this programme. The full-time school rate rose: in 2008 1.93 million primary or secondary school students attended a full-time school, which corresponds with a rate of 24.1 per cent.

In Germany the availability, cost and quality of day-care and school infrastructure differs across states and municipalities. Differences between states are vast. In 2009, after years of extension, the level of childcare enrolment in the Eastern German states was comparable to the Scandinavian level (35–55 per cent), while in North Rhine-Westphalia it was still at 8.7 per cent. A similar variance can be found when looking at full-time schools: in Bavaria only 4.7 per cent of primary or secondary school students can visit full-time schools. On the contrary, the rate in Saxony at 69.3 per cent is 15 times higher. This heterogeneity of German family infrastructure shows impressively that in federal countries mean national-level values can be misleading. This is relevant for OECD comparisons, because childcare enrolment is one of the main determinants of fertility comparisons across OECD countries; not only in correlations ($r = 0.71$ in 2006), but also in terms of cross-sectional regressions (Castles 2003, 224; d'Addio and d'Ercole 2005, 61) and changing rate regressions (Bujard 2011a, 351). But even *within* states there are considerable differences in infrastructure supply, for example, the regional rate of childcare for children under three years of age in Baden-Wuerttemberg ranges from between nine per cent in rural districts to 36 per cent in Heidelberg (Statistische Ämter 2010).

As a matter of course, the broad concept of “family infrastructure” covers other policies (see Bertram and Bujard 2012), such as educational grants, housing policies, educational support for parents according to the Social Security Code (SGB) and health policies concerning free insurance for children and preventive medical check-ups. However, the crucial policy change began by establishing childcare and full-time school infrastructure – Germany is half-way there. In some regions parents and potential parents can already rely on such infrastructure in order to combine work and family. Nevertheless, in some regions this is still not the case.

3.3 Financial Transfer Policy: Continuity and Relics of the Past

While in Germany time and infrastructure policies have emerged as considerable areas of policy change over the past years, family allowances have shown an incremental increase over the past decades. Child allowances were increased relatively often. In 2010, the allowance was EUR 184 each month for the first and second child, EUR 190 for the third and EUR 215 for each subsequent child. It is paid at least until the age of 18. For students, it is even paid until the age of 25. In 2008 it equalled EUR 33.4 billion. There are many further financial rules covering public servants with children, means-tested social security, and benefits for single parents and housing support. It is noticeable that German transfer policy for families focuses mainly on the tax system. As an alternative to direct child allowances, parents can choose a tax exemption for dependent children of EUR 7,008, which is higher than direct allowances for parents with high tax progression. A remarkable relic of the male-bread-winner model is "Ehegattensplitting", tax splitting for married couples. This tax grant reduces taxes for married couples irrespective of them having children and is especially helpful for couples with only one income. Even though the costs of this instrument are relatively high, with an expenditure of EUR 20 billion, its abolition would not lead to a public saving of this sum because an alternative personal allowance would have to be developed. Considering the tax system in analysing German transfer policy is necessary for two reasons:

The international comparison of financial benefits for families, as conducted by the OECD, could be misleading. Without tax savings, Germany is in the OECD average with 1.43 per cent of GDP. With tax savings, it is in the top flight: 60 per cent higher at 2.3 per cent of GDP in 2005. Only eight out of 28 OECD countries have comparable tax saving components of family policy (OECD 2010a, 2010b).

The tax system encourages specific lifestyles and family decisions. German tax splitting for married couples encourages the male breadwinner/female carer family model. The increasing proportion of couples remaining unmarried in the egalitarian Eastern German states can be interpreted as a reaction to old-fashioned German marriage taxation. This "Ehegattensplitting" is completely unsuited to the changes in time and infrastructure policy mentioned above.

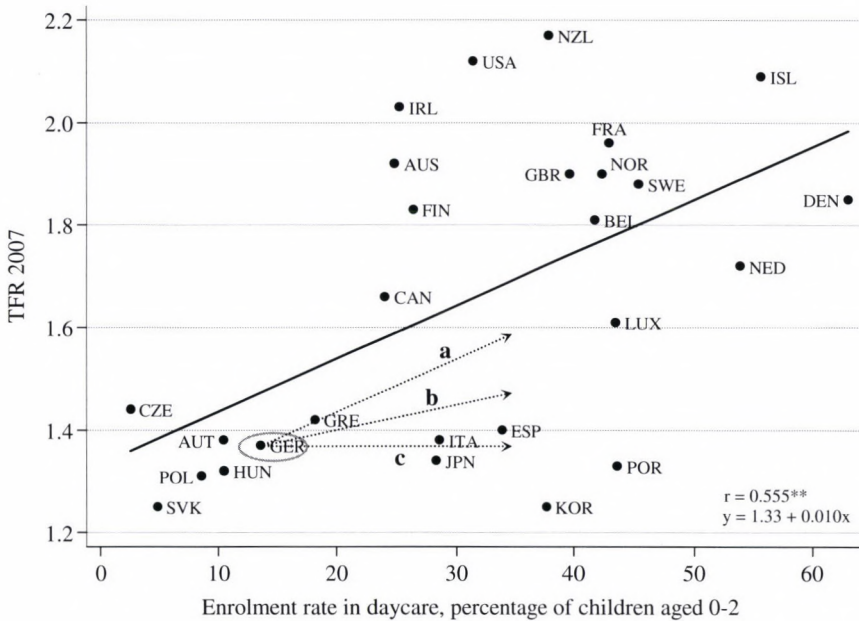
4 THE CONTEXT OF THE POLICY-FERTILITY NEXUS: TIME LAGS, ECONOMIC CHANGE AND RECUPERATION

4.1 Time Lags between Policy and Changes of Fertility

Should Mario Draghi, President of the European Central Bank (ECB), announce that the ECB is changing the key interest rate, one may expect business investments, private consumption and the financial market to react in a particular way over the following next few months. However, such a specific pattern of reaction cannot be expected from family policy, because there is not just one 'adjustment screw to turn', and the decision to have a child is not only a question of financial resources and employment, but also a dyadic one of life course and devotion.

Looking at the significant correlation of 0.555 between childcare enrolment and the TFR in Figure III, the majority of countries is close to the regression line. Of course, childcare is only one of several determinants of fertility, but its influence on cross-sectional regressions (see above) raises the question of a possible TFR response to increased childcare.

Which development will the German fertility rate have taken by 2013, when the 35 per cent rate of child placement is realised? Will it follow the gradient of .01x, which would be an increase of 0.22, an increase of the TFR from 1.38 in 2007 to 1.60 in 2013 (arrow a)? Will the German fertility rate stay at the same level, as it did for decades (c)? Or will it be in between (b)? These questions are very important, both for science and politics. Assuming that there is an effect, we have to think about time lags, and there are theoretical and empirical considerations to this matter.



Source: OECD 2010a, 2010c.

Figure III
The ambitious catch-up of German day-care policy

Policy changes, such as the ones described in Germany, can have an impact when potential parents interpret their constellation differently, for example: “If I decide to have a baby, I can go back to my job after one year”, or “If I decide to have another baby, there is no risk of becoming poor”. It is not a specific rate of an indicator that is relevant for fertility, but the appraisal of the economic situation for families and the compatibility of family and career. There is a time lag both in information and in norms. It might take a few years until the appraisal becomes common, that parents find a childcare place if they need one. The reason lies in the bounded rationality and the reduced information costs of fertility decisions, which can be explained by the Frame-Selection Model (Esser 2004) that differentiates decisions an actor may make in terms of its reflective rational frame and less reflective automatic frame. While the reflective rational mode needs elaborate information processing, the automatic frame relies on norms and scripts. Hence, people usually do not prepare an in-depth analysis of family policy and the labour market in their region before deciding to have a baby. They rely instead on norms or narratives of neighbours and

friends – which may be based on older constellations. The time lag concerning norms throws a spotlight on the mismatch of gender and generations: for most young women in Germany, both motherhood and a career are central parts of their future biography (Allmendinger 2009). In contrast, some men and a part of the older generation implicitly or explicitly expect mothers to step out of the labour market for a longer period of time and to withdraw previous job ambitions following childbirth. Possibly, the time lag of norms and information becomes larger the longer the incoherence between expected life plans of young women and family policy exists (see McDonald 2002).

Furthermore, for the intended change in patterns of fertility decisions throughout the life course, family policy has to be consistent and reliable. While the combination of the income-related parental leave benefit of 14 months and the new childcare policy is consistent, German taxation and adherence to half-day schools in some states do not go hand in hand with the change in policy.

This theoretical argument can be illuminated empirically: while a cross-sectional comparison shows a highly significant association between rates of childcare and fertility, the important question of time lags remains. For this, methodologically, the *changing rates* of childcare (enrolment or public expenditure) have to be compared with *changing rates* of fertility. For time lags of one or two years, the effects are small. However, for periods of five to ten years, the effects are significant. For 26 OECD countries, the correlation of changing rates of childcare expenses 1985–1995 with the TFR changing rates 1986–1996¹¹ is 0.558 and for the subsequent decade (1996–2006) 0.517. For the 20-year period, the effect is even higher with a Pearson's r of 0.727.¹² All three associations can be proven with multiple regressions of changing rates (Bujard 2011a). Analyses about time lags concerning the impact of childcare policy on fertility suggest that it can take five to ten years and that the effect is strongest when considering the two decades together. One of the rare empirical analyses of time lags of policy impact on fertility was carried out by Luci and Thévenon using one, three and five-year lags with pooled time series regressions. They found that longer lags increased the goodness of fit of their 2SLS model (Luci and Thévenon 2012, 28). Empirical knowledge about time lags is, however, still limited, not least due to methodological difficulties. However, there are theoretical and some empirical reasons to remain patient regarding the

¹¹ The operationalisation uses a time period of one year between determinants and the TFR, because the decision to have a child is ca. one year before birth (i.e. time between decision, conception and birth).

¹² The indicator “enrolment rate” has several advantages compared to the indicator “childcare expenses”, because the latter can be influenced by different sizes of generations. However, the data only allows use of the indicator childcare expenses for changes in this long time period.

effects of family policy on fertility. The longer the policy is reluctant to react to societal change, the longer the time lag is – this being due to cultural norms having adapted to the old model of family policy. Hence, in Germany, more patience is required.

4.2 The Race between Economic Change and Policy Reaction

When analysing the impact of policies, we have to consider that non-policy determinants are also dynamic. Therefore, impact studies depend on theories about reasons for the birth decline in OECD countries since the end of the 1960s. There are various theories with different disciplinary perspectives which highlight cultural norms (van de Kaa 1987; Lesthaeghe 2010), micro-economic decisions (Becker 1991), gender equity (McDonald 2000), female emancipation (Esping-Andersen 2009), technology (Murphy 1993), biographic options (Birg et al. 1991), the level of development (Myrskylä, Kohler and Billari 2009) and structural changes (Castles 2003; see also Lesthaeghe 1995).

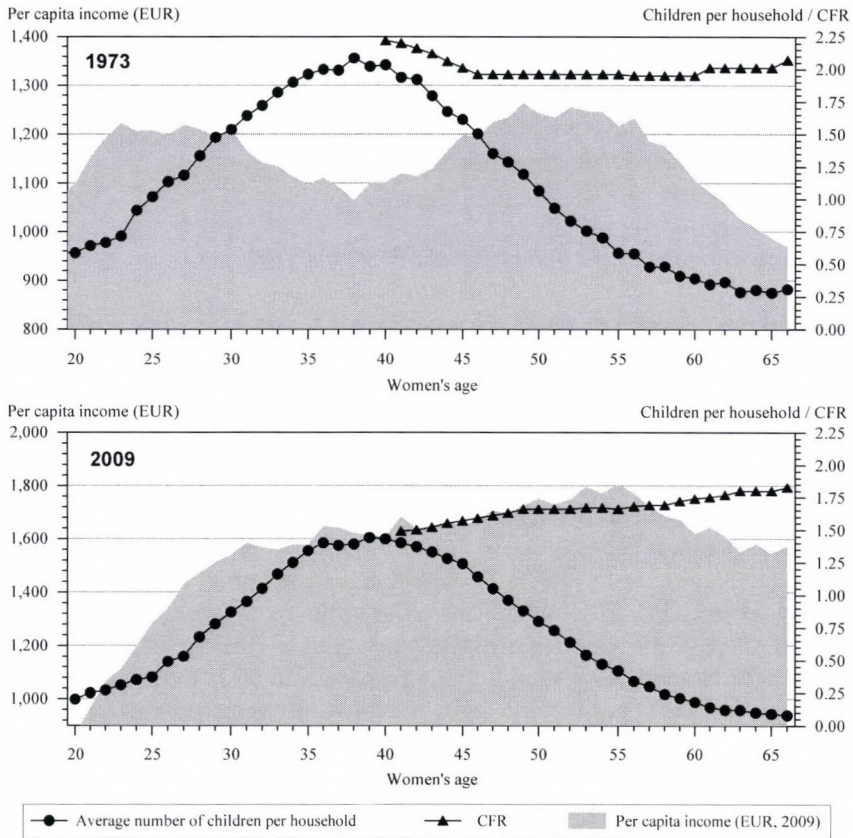
Some arguments concerning these theories can be recombined into a two-stage theory of diffusion and adaptation (Bujard 2011a). At the macro level, the beginning of the second birth decline can be explained by the onset of economic modernisation and female emancipation, the initial factors being the contraceptive revolution and the debate about overpopulation. Additionally, in some countries there were inhibiting factors to this process, such as Catholicism and low political rights. These developments spread through the highly industrialised countries and their inhabitants. At the micro level, these developments affected the rise of opportunity costs for women to work, and biographical options in partnership, the labour market and leisure time. The contraceptive pill allowed for exact planning of childbirth and had an influence on dyadic decisions. Changing norms accompanied the dynamic pattern of economic, technological and societal changes so that sexual relationships without marriage and the delay (or absence) of parenthood became socially accepted. In the 1970s, the TFR was lowest in countries with a modern economy, high levels of female labour market participation and free access to modern contraception.

In the 1980s, the relationship between the developments described above and some other determinants of fertility changed in a systematic way (Ahn and Mira 2002; Castles 2003). The peak was in 1986. In the 1990s, and still today, the TFR is highest in countries with a strong service sector and generous family policy, but also high GDP per capita, a low unemployment rate, certain migrant groups, and high levels of Protestantism. Historical experience with natalistic misuse also plays a role. While the country differences of TFRs during the second birth decline of 1965 to 1985 can be interpreted by different diffusion

tempi, the high variance in the last decades can be explained by differing political and societal adaptations. The relationship between diffusion and adaptation in each country is a main determinant of the development of fertility rates. Certainly in Germany, the dynamic of the diffusion process today is lower than it was in around 1970. However, the modernisation of the economy (which puts pressure on education, mobility and flexibility) carries on. The younger generation may expect to face later entry into a career and more insecure jobs. Supposedly, without changes to family policy (adaptation), fertility rates could have dropped even further over the last few decades. Hence, the effect of family policy – but also societal and economic adaptation to family needs and female emancipation – has to be stronger than the effect of diffusion and further economic modernisation. Both powers are effective across time and influence fertility rates as well as the life planning of younger generations. It is comparable with a chase: the tempo, intensity and how family policy reacts to these economic and societal changes systematically is fundamental.

This argument can be demonstrated by the interaction of family policy, women's labour force participation and fertility. At the macro level, the nexus between women's labour force participation and fertility has turned from a negative into a positive correlation (Ahn and Mira 2002). Thévenon (2009) shows that in countries such as Germany, with limited work–life balance policies, the increase of women's labour force participation is accompanied by an increase of childless women. Family policy is the invisible hand for the changing signs of these correlations. In the diffusion phase, factors, such as increased GDP per capita, and the availability of modern contraceptives simultaneously had a positive correlation with women's labour force participation and a negative one with the TFR. Since the 1980s, childcare expenses per capita have grown (OECD 2010b), and they have had a positive correlation with both TFR and women's labour force participation.¹³ Multivariate regressions and changing rate analyses (see above) confirm the argument that family policy is the invisible hand behind the changing relationship between women's labour force participation and TFR.

¹³ In 1971 the correlation between GDP per capita and TFR for 23 OECD countries was -0.43; the correlation between GDP per capita and women's labour force participation was 0.33. In 2006, the correlation between childcare expenses per capita and TFR for 28 OECD countries was 0.66; the correlation between childcare expenses per capita and women's labour force participation was 0.58 (Bujard 2011a).



Source: German Microcensus 1973, 2009 (scientific use files), author's calculations.
 Note: the per capita income is inflation adjusted (in EUR, basis 2009) and weighted by the new OECD scale. The difference between the lines of both CFS and average number of children per household is due to empty nesters.

Figure IV
Income and living with children in life course: West Germany 1973 and 2009

For Germany, the changed constellation for families can be demonstrated well by Microcensus data. Figure IV shows that in a life-course perspective the household income of women between 20 and 35 years of age dropped dramatically between 1973 and 2009. In the biological time slot of high fecundity, average income was lowest. The contrast of the “two-humped camel pattern” of 1973 and the pattern seen in 2009 is enormous. Although a part of this shift is

due to higher age at marriage in 2009¹⁴, these data show the powerful shifts in income across the life course as a result of extensive economic changes over the last few decades. Furthermore, it underlines that it is not only the reconcilability of work and care which can be helped by childcare and leave policies, but that economic factors are also at play. Therefore, the generational distribution of income is disadvantageous for the younger generation.

4.3 Recuperation Process Underlying the Flat-rate TFR

After having looked at time lags in Section 4.1, and some independent variables in Section 4.2, it is helpful to focus on the dependent variable. There is not only a hidden regional variance within steady TFR rates, but also different parity patterns between Eastern and Western Germany. In Western Germany, the childless rate at 21 per cent is high, and with 38 per cent two children is the most frequent family form. On the contrary, in Eastern Germany, the one-child family is widespread (Statistisches Bundesamt 2009).

The recuperation process is especially interesting concerning future developments (Prskawetz et al. 2011). The TFR has been stable in Western (West) Germany for decades, as simultaneously the births for women at the age of 30 years and younger dropped from 734 per thousand in 2001 to 580 in 2009, and the births for women older than 30 rose from 648 to 772. Even more striking are changes of age-specific birth rates for 44 to 49 year old women; in nine years it nearly doubled from 34 to 54 births (per thousand). This pattern is even clearer in Eastern Germany, where the age-specific birth rate of 35 to 39 year old women doubled from 96 in 2001 to 201 in 2009, and the rate of 40 to 49 year old women with 36 births was more than twice the rate of 2001 (Bertram et al. 2011).

These age-specific data show that there is a fertility dynamic hidden by the broad indicator TFR. This might throw new light on the effects of the generous parental leave benefit that was introduced in January 2007 (and announced in 2006), if we take into account that this policy particularly affects the older cohorts: in Western Germany, the increase of the age-specific birth rate (per thousand) for 35 to 39 year-old women from 2001 to 2006 was around 7 each year (7, 7, 10, 4 and 6); in the following years after the newly-introduced parental leave benefit it increased to 17 and 11. In Eastern Germany, there was also an acceleration of age-specific birth rates in this age group from 148 to 201 between 2006 and 2009. Of course, this recuperation phenomenon is a general trend in OECD countries, but the age-specific birth rates suggest the possibility

¹⁴ The household income of married women is higher due to the income of husbands as well as the reduced denominator for additional household members in the OECD scale. For higher age at marriage in Germany see Grünheid (2011).

that the parental leave policy has boosted the recuperation process. Additionally, the argument shows that a stable TFR does not mean that there is no effect of policy intervention. And how would the TFR have developed without recent changes in family policy?

5 ACTUALLY, MUST FAMILY POLICY LEGITIMATION BE DEMOGRAPHIC?

Having shed light on fertility, family policy and possible effects for Germany, one general argument is to draw on the perspective of a political scientist: the legitimisation of family policy is not only based on demographic goals. In German family policy laws this goal is not even explicitly stated. Rather, since competence is shared by several different departments (see Section 2) there are a series of different policy goals, which can be pursued by family policy.

Figure V demonstrates a matrix between instruments and goals, in which the check marks indicate possible effects. There are individual goals, concerning the well-being of children and parents (Bradshaw et al. 2006; Bertram and Spieß 2012), and societal goals. Even if the discourse on family policy and its effects often cover demographic externalities, it has to be stressed that this is not the main goal of the government and the experts of the Seventh Report on the Family. From a normative perspective, there should be a hierarchy of goals, with children's well-being at the top. Irrespective of goal hierarchies, this is a 'win-win' situation, because the means to reach these goals are complementary. Swedish family policy was legitimised primarily by gender equality, the Anglo-Saxon one mostly by avoiding poverty, the German childcare policy by education and French family policy by demographic goals. Of course, there are usually mixed motives, but the effects are similarly independent – whether intentional or not.

	Child well-being		Parental well-being			Societal goals	
	Education and qualification	Health, safety and time	Avoiding poverty	Gender equality	Labour force participation	Fertility	Family norms
Pension claims parents			✓				✓
Child allowances			✓			✓	
Health security (free)		✓	✓				
Parental leave	✓	✓	✓	✓	✓	✓	✓
Paternity leave		✓		✓	✓		✓
Child care	✓	✓	✓	✓	✓	✓	✓
School hours: half day or full day	✓		✓	✓	✓	✓	✓
Regional infrastructure		✓					
Part-time work		✓		✓	✓	✓	
Job guarantee for mothers				✓	✓		✓
Divorce and alimony laws		✓	✓	✓	✓		✓
Taxation of second earner				✓	✓		✓
Special policy for third or fourth child			✓			✓	✓
Addressing	Children	Children	Parents and children	Parents	Parents and economy	Society	Society

Source: Bujard 2011a, 372.

Figure V
Instruments and goals of family policy

The complementary goal structure offers chances for policy makers, because they can form coalitions for family policy with different groups: social policy, business, feminists, educators, and pensioners. But there is one hazard: when family policy is legitimised solely on the basis of its potential to raise fertility, a non-effect – or late effects – could challenge specific policies which have a positive effect on other, non-demographic goals. This discussion came up in the German public a year after the introduction of the new parental leave benefit, which was a disservice to family policy advocates.

6 SUMMARY

This analysis highlights some contradictions between German family policy and its institutional setting on the one hand, and the individual perspective and the bounded rationality of fertility decisions on the other. The crucial point in terms of positive impact of family policy on fertility is the need of the family for time, infrastructure and money – in contrast to the widespread split of competences of different departments and different levels of government. Germany has undergone comprehensive changes in family policies within the last few years, though the fertility rate remains very low.

The question of the policy impact on fertility is disputed between researchers and at the same time the political relevance of this question is very high. Those researchers who conduct their analyses based on macro-level data can provide arguments about the impacts of policies. Accordingly, German family policy reforms should have led to an increase of TFR. However, the case of Germany challenges such a hypothesis. The massive expansion of childcare and the new income-related parental leave benefit are elements of a modern policy. However, young families face some contradictory and interfering relics of the past like male-breadwinner-orientated tax splitting for married couples and the still-prevalent system of half-day schools. German family policy is halfway there, in terms of accommodating the preferences of the younger generation and economic circumstances. But for demographic effects to be seen it has to be reliable and consistent from the perspective of potential parents.

Empirical data and theoretical arguments emphasise that there is a time lag of several years between policy and effect. To understand these time lags a profound theoretical basis is as much needed as the quantitative operationalisation of lagged dependent variables. The latter being the case, because policy effects can only be understood if we have an explanation for the whole phenomenon of the second birth decline. In fact, policy is even part of this phenomenon, which can be interpreted under a broad perspective as a race between diffusion of modernisation and both political and societal adaptation. Analyses of policy impact must take a broad perspective in terms of time and different determinants. Furthermore, we can see fertility changes hidden behind the indicator TFR, for instance age-specific birth rates which have shown an astonishing level of recuperation in the last ten years.

Finally, the German case does not contradict the thesis of policy effects on fertility completely. In fact, it illustrates contextual factors of policy impact, in particular institutions, time and bounded rationality. If German society is patient enough, and if German politicians have the endurance to continue reforms towards a coherent modern family policy which meet the needs of young generations, then demographic effects could become apparent in the next one or two decades. Here, we are talking about fundamental social policy reform.

However, many more determinants beyond policies and the economy matter, especially the historically shaped cultural and institutional heritage. At the same time, family policy has many important goals other than raising fertility.

Further research regarding the effects of family policy and fertility is necessary. Such research should consider both TFR and recuperation measurements as dependent variables, as well as the institutional setting as independent variables besides policy, economic and cultural factors. Because knowledge about time lags between policy change and effects on fertility is limited, future research should give special attention to time lags.

REFERENCES

- Adserà, A. 2004. Changing Fertility Rates in Developed Countries: The Impact of Labor Market Institutions. *Journal of Population Economics* 17, 17–43.
- Ahn, N. and Mira, P. 2002. A Note on the Changing Relationship between Fertility and Female Employment Rates in Developed Countries. *Journal of Population Economics* 15, 667–682.
- Allmendinger, J. 2009. *Frauen auf dem Sprung: Wie junge Frauen heute leben wollen*. Munich, Pantheon.
- Becker, G. S. 1991. *A Treatise on the Family*. Enlarged Edition. Cambridge, Harvard University Press.
- Bertram, H., Bujard, M. and Rösler, W. 2011. Rush-hour des Lebens – Geburtenaufschub, Einkommensverläufe und familienpolitische Perspektiven. *Journal of Reproductive Medicine and Endocrinology* 8(2), 91–99.
- Bertram, H., Rösler, W. and Ehlert, N. 2005. Zeit, Infrastruktur und Geld: Familienpolitik als Zukunftspolitik. *APUZ* 23–24, 6–15.
- Bertram, H. and Spieß, C. K. 2011. *Frägt die Eltern! Ravensburger Elternsurvey, Elterliches Wohlbefinden in Deutschland*. Baden-Baden: Nomos.
- Bertram, H. and Bujard, M. 2012. Zur Zukunft der Familienpolitik. In Bertram, H. and Bujard, M. (eds.): *Zeit, Geld, Infrastruktur – zur Zukunft der Familienpolitik*. Special Issue Soziale Welt 19. Baden-Baden, Nomos, 3–24.
- Birg, H., Flöthmann, E. and Reiter, I. 1991. *Biographische Theorie der demographischen Reproduktion*. Frankfurt am Main, Campus.
- BMFSFJ [German Ministry for Family, Senior Citizens, Women and Youth] 2006. *Siebter Familienbericht. Familie zwischen Flexibilität und Verlässlichkeit. Perspektiven für eine lebenslaufbezogene Familienpolitik*. Berlin, Drucksache 16 / 1360.
- BMFSFJ 2010. *Finanztableau der ehe- und familienbezogenen Leistungen 2008*. Berlin, BMFSFJ.
- Bonoli, G. 2008. The Impact of Social Policy on Fertility: Evidence from Switzerland. *Journal of European Social Policy* 18, 64–77.
- Bradshaw, J., Hoelscher, P. and Richardson, D. 2006. Comparing Child Well-Being in OECD Countries: Concepts and Methods. *UNICEF Innocenti Working Paper* 3.
- Bujard, M. 2011a. *Geburtenrückgang und Familienpolitik*. Baden-Baden. Nomos.
- Bujard, M. 2011b. *Geld-, Zeit- und Infrastrukturleistungen der deutschen Familienpolitik*. Expertise for the academy group “Future with Children“, conducted by the

- National Academy of Science Leopoldina and BBAW. Available: <http://www.zukunft-mit-kindern.eu/publikationen/weitere-forschungsliteratur>
- Castles, F. G. 1993. *Families of Nations: Patterns of Public Policy in Western Democracies*. Aldershot, Dartmouth.
- Castles, F. G. 2003. The World Turned Upside Down. *Journal of European Social Policy* 13, 209–227.
- d'Addio, A. and d'Ercole, M. 2005. Trends and Determinants of Fertility Rates in OECD Countries: The Role of Policies. *OECD Social, Employment and Migration Working Papers* 27.
- Deutscher Bundestag 2004. Gesetz zum qualitätsorientierten und bedarfsgerechten Ausbau der Tagesbetreuung für Kinder (TAG). *Bundesgesetzblatt I*, 76, 3852–3854.
- Deutscher Bundestag 2006. *Entwurf eines Gesetzes zum Elterngeld und zur Elternzeit (BEEG)*. Berlin, Drucksache 16 / 1889.
- Deutscher Bundestag 2008. *Entwurf eines Gesetzes zur Förderung von Kindern unter drei Jahren in Tageseinrichtungen und in der Kindertagespflege (KiföG)*. Berlin, Drucksache 16 / 10173.
- Esping-Andersen, G. 2009. *The Incomplete Revolution: Adapting to Women's New Roles*, Cambridge, Polity Press.
- Esser, H. 2004. In guten wie in schlechten Tagen? Eine Anwendung des Modells der Frame-Selektion. In Esser, H.: *Soziologische Anstöße*. Frankfurt, Campus, 255–300.
- Eurostat 2011. *Unemployment – LFS Adjusted Series*. Available: <http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/themes>.
- Gauthier, A. H. 2007. The Impact of Family Policies on Fertility in Industrialized Countries: A Review of the Literature. *Population Research and Policy Review* 26, 323–346.
- Gauthier, A. H. and Hatzius, J. 1997. Family Benefits and Fertility: An Econometric Analysis. *Population Studies* 51, 295–306.
- Gauthier, A. H. and Philipov, D. 2008. Can Policies Enhance Fertility in Europe? *Vienna Yearbook of Population Research*, 1–16.
- Grünheid, E. 2011. Wandel des Heiratsverhaltens in Deutschland: Analysen mit Tafelberechnungen. *BiB Working Paper* 2/2011.
- Human Fertility Database 2011. Germany: Cohort Summary Indicators. In: *Human Fertility Database*. Max Planck Institute for Demographic Research (Germany) and Vienna Institute of Demography (Austria). Available: www.humanfertility.org.
- Lesthaeghe, R. 1995. The Second Demographic Transition in Western Countries: An Interpretation. In Mason, K. O. and Jensen, A. (eds.): *Gender and Family Change in Industrialized Countries*. Oxford, Clarendon Press, 17–62.
- Lesthaeghe, R. 2010. The Unfolding Story of the Second Demographic Transition. *PSC Research Report* 10–696.
- Lohmann, H., Peter, F. H., Rostgaard, T. and Spieß, C. K. 2009. Towards a Framework for Assessing Family Policies in the EU. *OECD Social, Employment and Migration Working Papers* 88.
- Luci, A. and Thévenon, O. 2012. The Impact of Family Policy Packages on Fertility Trends in Developed Countries. *INED Working Paper* 174.
- McDonald, P. 2000. Gender Equity, Social Institutions and the Future of Fertility. *Journal of Population Research* 17, 1–16.

- McDonald, P. 2002. Sustaining Fertility through Public Policy: The Range of Options. *Population* 57, 417–446.
- Murphy, M. 1993. The Contraceptive Pill and Women's Employment as Factors in Fertility Change in Britain 1963-1980: A Challenge to the Conventional View. *Population Studies* 47, 221–243.
- Myrskylä, M., Kohler, H.-P. and Billari, F. C. 2009. Advances in Development Reverse Fertility Declines. *Nature* 460: 7256, 741–743.
- Neyer, G. and Andersson, G. 2008. Consequences of Family Policies on Childbearing Behavior: Effects or Artifacts? *Population and Development Review* 34, 699–724.
- OECD 2010a. *Family Database*. OECD, Paris.
- OECD 2010b. *Social Expenditure Database*. OECD, Paris.
- OECD 2010c. *Factbook*. OECD, Paris.
- OECD 2011. *StatExtracts*. Available: <http://stats.oecd.org/Index.aspx?DataSetCode=CSP2010>.
- Prskawetz, A., Jaschinski, I., Kreyenfeld, M., Sobotka, T., Philipov, D., Bernardi, L., Goldstein, J. and Zeman, K. 2011. *Demographische Analyse der Fertilitätsentwicklung*. In: Stock, G., Bertram, H., Prskawetz, A., Holzgreve, W., Kohli, M. and Staudinger, U. (eds.): *Zukunft mit Kindern*. Frankfurt, Campus, 116-197.
- Schmidt, M. G. 1993. Gendered Labour Force Participation. In Castles, F. G. (ed.): *Families of Nations: Patterns of Public Policy in Western Democracies*. Aldershot, Dartmouth, 179–237.
- Sleebos, J. E. 2003. Low Fertility Rates in OECD Countries: Facts and Policy Responses. *OECD Social, Employment and Migration Working Papers* 15.
- Spieß, C. K. 2012. Zeit, Geld, Infrastruktur und Fertilität: Befunde empirischer Mikrostudien und was wir daraus lernen können. In: Bertram, H. and Bujard, M. (eds.): *Zeit, Geld, Infrastruktur – zur Zukunft der Familienpolitik*. Special Issue Soziale Welt 19. Baden-Baden, Nomos, 321–336.
- Statistische Ämter des Bundes und der Länder 2010. *Kindertagesbetreuung regional 2009*. Wiesbaden.
- Statistisches Bundesamt 2009. *Mikrozensus 2008. Neue Daten zur Kinderlosigkeit in Deutschland*. Wiesbaden.
- Statistisches Bundesamt 2010. 23% der Kinder unter 3 Jahren in Kindertagesbetreuung. In *Pressemitteilung* 409 [10.11.2010], Wiesbaden.
- Statistisches Bundesamt 2011a. *Kinder- und Jugendhilfestatistik, Statistik Tageseinrichtung für Kinder*. Wiesbaden.
- Statistisches Bundesamt 2011b. *Kinder- und Jugendhilfestatistik, Statistik Betreuungsquote für Kinder*. Wiesbaden.
- Thévenon, O. 2009. Increased Women's Labour Force Participation in Europe: Progress in the Work-Life Balance or Polarization of Behaviors? *Population* 64, 235–272.
- Thévenon, O. 2011. Family Policies in OECD Countries: A Comparative Analysis. *Population and Development Review* 37, 57–87.
- Van de Kaa, D. J. 1987. Europe's Second Demographic Transition. *Population Bulletin* 42(1), 1–59.

THE “COLUMBUS’ EGG” OF NORWEGIAN FAMILY POLICY

TRUDE LAPPEGÅRD¹

ABSTRACT: *Nordic countries have long traditions of promoting gender equality through family policy. The combination of gender equality and comprehensive family and parental provision have been referred to as the “Columbus’ egg” of Norwegian policies. The Nordic combination of high levels of female employment and relatively high levels of fertility has prompted the notion that family policies may play a role in generating this fortunate situation. Developments in family policy may provide means to facilitate combination of childrearing and female employment and therefore make the choice between the two unnecessary. However, reviews of the literature do not come to a conclusion about how policies influence fertility. One reason for this may be found in the measurement of family policies. Some analyses measure the aggregated value of welfare benefits while others are restricted to specific policies. Another reason is that social policies that may influence fertility often have goals other than fertility per se. Reproductive decisions may be influenced indirectly through policies that change the environment in which decisions about having children are made by couples. In this article I use two examples of how Norwegian family policy is linked to fertility. Neither example demonstrates causal relations, but the research does indicate how individuals may respond to different policies.*

INTRODUCTION

Nordic countries have long traditions of promoting gender equality through family policies (e.g. Kangas and Palme 2009). The combination of gender equality and comprehensive family and parental provision have been referred to as the “Columbus’ Egg” of Norwegian policies. Nordic countries have high levels of female employment and relatively high levels of fertility; it has been proposed that family policies may play a role in generating this fortunate situation. Family policies may provide a means of combining childrearing and female employment, making a choice between them unnecessary (Duvander et al. 2010). However, literature reviews indicate that there is no clear relationship between family policies and fertility.² One reason for this may be found in how family policies are measured. Some analyses measure the aggregated value of

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² For an overview see e.g. Neyer 2003; Gauthier 2007.

welfare benefits, while others restrict themselves to specific policies (Gauthier 2007). Another reason is that social policies that influence patterns of fertility often have goals other than fertility *per se*. As such, reproductive decisions may be influenced indirectly through policies that change the environment within which decisions about having children are made (Sleeboos 2003). In this article I will use two examples of how Norwegian family policy is linked to fertility. Neither of the examples demonstrates causal relations, but they do show how individuals respond differently to policies.

Nordic countries are distinct from other industrialised countries, with relatively high female employment (including amongst mothers of young children) and relatively high fertility. There has been a long tradition of describing and exploring national differences in gender equality and family policies. The Nordic countries, including Norway, score highly on supporting dual-earner families through parental leave policies and kindergarten (Korpi 2000). Such policies are likely to encourage women's continuous employment and enable mothers and fathers to combine parenthood with paid work, thereby redistributing caring responsibilities within the family (Crompton 2004). Norway also scores highly in country rankings of general family support, which includes cash benefits for childcare (Korpi 2000). Such policies have been referred to as a set of policy instruments directed at nuclear families, which might encourage the reproduction of a relatively traditional division of domestic labour, particularly if they are aimed directly at women (Crompton 2004). The fact that Norway scores highly on both these policy dimensions illustrates that Norway has what can be described as a 'two-edged family-policy set up'. This dualism is the result of a dynamic political climate and a strong focus on family arrangements by all political parties; different policies have been implemented at different times and by different political actors. I would argue that in the end this has been an advantage for parents of young children, as it has given them a wide range of options for arranging work and childcare.

Analysis of the two examples given in this article is based on the Norwegian population register. The study population covers all couples where both parents are Norwegian born and whose first child is the first child of the mother. The demographic information has been merged with information on registered income and educational attainment from the Norwegian tax register and the Norwegian educational register. Information on parental leave use was made available by the Norwegian Labour and Welfare Organisation (NAV).

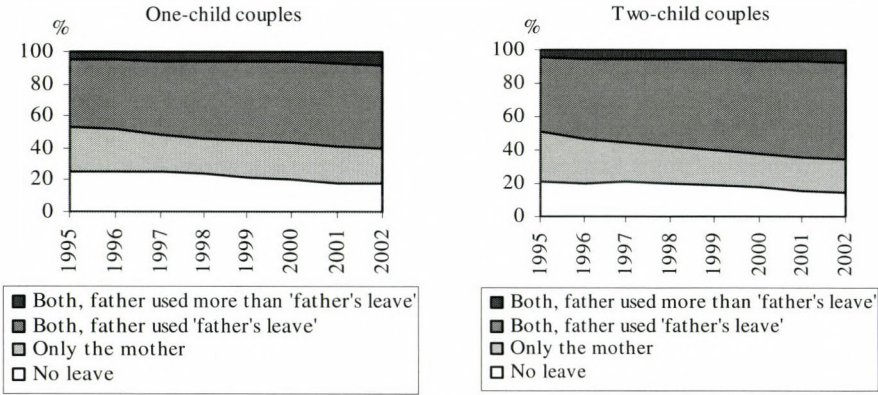
PARENTAL LEAVE POLICY

My first example is parental leave policy, and is based on evidence from the article "Family Policies and Fertility in Norway" (Lappegård 2010). Parental

leave policy offers working parents paid leave after childbirth for around one year. The parental leave benefits are financed through general taxation with no direct costs to employers. The benefit gives economic compensation up to a fixed ceiling, which is generally very generous. With this generous wage compensation, most mothers take the allowed-for leave and do not return to work before the end of their leave entitlement. One of the intentions of this policy is to secure mothers' rights in the labour market, i.e. to give mothers the right to return to the same position after both the paid leave period and a possible additional unpaid leave period of one year. The policy also reduces the direct costs of income lost due to absence from work as a result of childbirth. Norway was the first country in 1993 to introduce an earmarked part of the leave for the father, which is forfeited if not used. The government's intention was to contribute to a real change in the gendering of caring responsibilities and a restructuring of the gendered division of unpaid work. It started at four weeks in 1993, and was increased to five weeks from 2005, six weeks in 2006, ten weeks in 2009 and finally to 12 weeks in 2011.

My analysis focuses on when the leave was still four weeks' long, and is based on a discrete time-hazard model. In discrete time, the hazard is the conditional probability that an event (in this case the birth of the second or third child) will occur at a particular time to a particular individual, given that the individual has not experienced the event before. We follow couples from the first birthday of their first or second child until the women gives birth to their second or third child. This starting point was chosen because we have included couples' use of parental leave in the model, which occurs during the child's first year.³ In the analysis couples were divided into four groups. The first group consisted of couples where the mother was not entitled to leave benefits and for this reason neither was the father. These mothers were not connected to the labour market and may be described as more traditional than others; they are associated with overall higher fertility. The other three groups contained working mothers, and they were divided depending upon how much leave fathers took. One argument about the relationship between use of parental leave and childbearing is that involvement of fathers has a positive effect on couples' decisions to have another baby, as it gives mothers more flexibility in timing their return to work. Fathers' use of parental leave may also be driven by a desire to have children, and thus may have a positive impact on couples' decisions to have another child.

³ For further description of the method see the original article (Lappegård 2010).

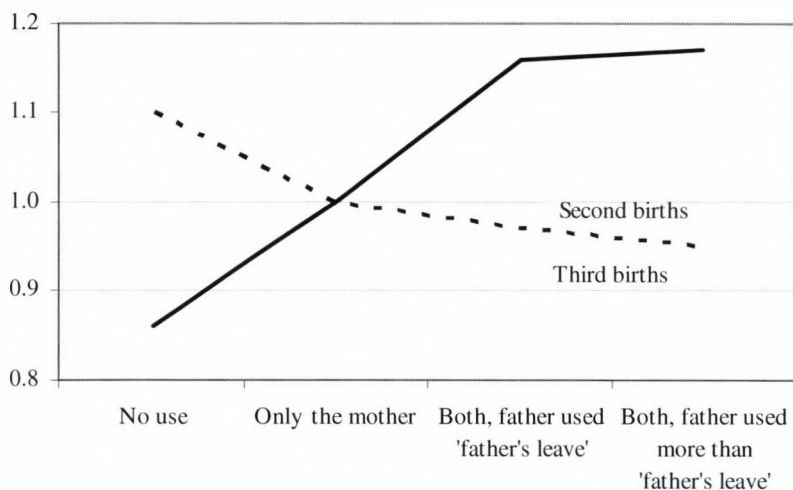


Source: Lappegård 2010.

Figure I
Distribution of parental leave use over time

Figure I presents the distribution of couples' use of parental leave over time. It shows that use of parental leave is quite gender biased, and far from a situation of gender equality. The largest group consists of couples where the father uses only fathers' leave, which captures more than half of all couples, but there is an increase in the number of fathers taking parental leave over time. Fathers have adapted to the fathers' leave policy rather quickly. Most fathers have responded to the additional weeks that have been added to the leave by increasing the duration of their leave.

Moving to the results from the discrete time-hazard model, Figure II presents the relative risks of second and third birth by use of parental leave. Interestingly, we see the opposite effects for second and third births. For one-child couples there is a positive association between couples' use of parental leave and a second birth, while for two-child couples there is a positive association between no use of parental leave and third birth and only small differences among parental leave users.



Source: Lappegård 2010.

Figure II
Relative risks of second birth and third birth for couple's use of parental leave

From this we can conclude that stronger involvement of fathers in childrearing and more flexible timing of return to work for mothers are important for second births. Fathers' use of parental leave is still far from a level that would indicate true gender equality, but more egalitarian partnerships between mothers and fathers help ease mothers' burden at home and thus enhance reconciliation of work and family life. In dual-earner/dual-carer families, such compatibility seems to make it easier to have a second child more quickly. Opposite findings for third births, where no parental leave use is positively associated with third-child birth rates indicate that mothers who choose to have more children may have a weaker work orientation.

CHILDCARE CASH-BENEFIT POLICY

My second example is the childcare cash-benefit policy, and is based on evidence from "Cash-Benefit Policy and Childbearing Decisions in Norway" (Aassve and Lappegård 2010). This policy offers parents a cash payment if they do not use publicly subsidised childcare. This is actually the only requirement for receiving the benefit, and there are no regulations concerning whether parents care for their children themselves or not. However, in most cases receiving

the cash benefit means that one of the parents, usually the mother, stays at home to look after the child. The childcare cash benefit is available to parents of children aged 13–36 months. The policy was introduced in 1998 and the maximum transfer is around EUR 450 per month. This is around the same level as the state subsidy per child given to day-care centres when it was introduced. The aim of the policy is threefold: (1) to give families more time with their children and more flexibility with respect to organising childcare, (2) to provide a cash benefit to parents who prefer to care for their children at home, and (3) to distribute transfers more equally and thereby give economic compensation to those not placing their children in kindergarten.

The childcare cash benefit was put in place after much political debate, and was met with criticism: at the beginning mostly from a gender perspective, but more recently also from a social perspective (e.g. Ellingsæter 2007). The policy was supposed to be gender-neutral, but all evidence suggests that it was not. Almost all recipients are mothers, and it has been argued that the policy has encouraged women to stay at home with their children, thereby reducing labour supply. This has been confirmed by several studies which have reported a negative effect of the benefit on mothers' labour supply since the reform was introduced (e.g. Håkonsen et al. 2001; Knudsen 2001; Rønsen 2001, 2005; Schøne 2004). The policy has consequently been considered as gender-biased, facilitating a more traditional division of labour between mothers and fathers. From a social perspective it can be pointed out that there is higher up-take of the benefit by lower social classes and especially by immigrants. This has led to debates about increasing social inequality as a result of some children missing out on social learning in kindergarten, and about the fact that children of immigrant parents tend to have lower levels of Norwegian language development if they do not attend kindergarten.

Table 1
Up-take of childcare cash benefit for children born 1998–2000, all and by mother's educational attainment, per cent

	Educational attainment				
	All	Low	Medium	High	Very High
C1 (0 months)	12	6	7	13	27
C2 (1–6 months)	10	5	8	14	24
C3 (7–12 months)	10	8	9	13	14
C4 (13–18 months)	9	10	9	10	9
C5 (19–23 months)	12	15	12	11	9
C6 (24 months)	47	56	55	39	17

Source: Aassve and Lapppegård 2010.

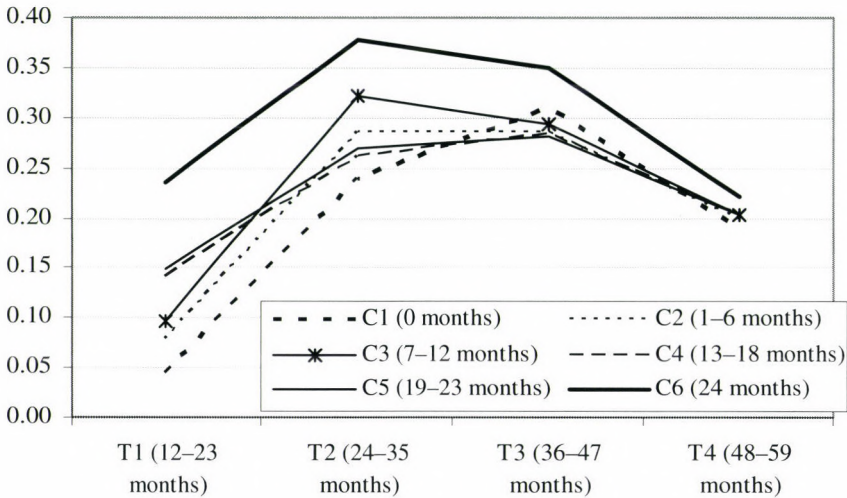
Table 1 present the up-take of childcare cash benefit for children born between 1998 and 2000. Estimates are shown for all mothers and by mothers' educational attainment. There is much variation in the length of parents' childcare cash benefit use. Mothers with the lowest levels of education receive the benefit for a longer period than other mothers, but a significant proportion of women with high levels of education also take the cash benefit for the full 24 months. In the studied period, we can see overall high take up of this childcare cash benefit. One reason for this may be lack of availability of childcare. Localities that have increased the availability of childcare provision have seen a decrease in up-take of the benefit.

In order to detect behavioural patterns in the link between use of the childcare cash benefit and fertility, three scenarios were defined based on different work and childcare preferences. In the first scenario we have couples where the mother has strong work preferences and there is no use of the cash benefit. Working mothers return to the labour market before having a second child in order to accrue rights to new parental leave benefits. In order to receive full parental leave benefits, one has to work six of the last ten months prior to birth. Mothers with strong work preferences will probably not proceed to having second child as quickly as others. In the second scenario we have couples with strong parental care preferences who use the full length of the cash-benefit period. The cash benefit may function as an alternative income source, especially among those with low incomes. The cash benefit is available for four years in a row if the mother has a second child within two years. This means that we can expect this group to proceed quicker to second births than others. In the third scenario we have couples with preferences for both parental care and work. For some working mothers the cash benefit may function as an extension of the paid leave period, and result in a longer break from the labour market after having their first child. However, as working mothers they want to return to the labour market before having the second child, which means that we can expect a peak of second births in the period after returning to the labour market.

The key purpose of the analysis in this example is to assess how differences in cash-benefit take up relate to the timings of second births. That is, we are interested in finding out to what extent someone taking the cash benefit for the full 24 months differed in terms of timing of birth from someone who did not take the full cash benefit. For this we implement an inverse probability-weighting estimator, in which the weights are derived from propensity score estimation.⁴ The sample includes couples who are recorded to have the first birth. The outcome variable is then defined by the time it takes to proceed to a second birth, measured yearly. Thus the outcome is in effect a discrete time-

⁴ For further description of the methods see original article (Aassve and Lappegård 2010).

hazard regression model whose estimated mean gives the rate of having the next child for each of the consequent intervals.



Source: Aassve and Lapppegård 2010.

Note: T = time since first birth. C = Number of months of use of childcare cash benefit.

Figure III
Second birth rates by use of childcare cash benefit

Figure III presents second birth rates by use of childcare cash benefit. Bear in mind that in order to receive the cash benefit a child cannot stay in government-subsidised formal childcare, which in practice means that the mother is in employment. The estimates show that those who take full cash benefit (C6 – 24 months) proceed more quickly to having a second birth. The birth hazard is higher than the other groups in all four time periods. Those taking the cash benefit for a shorter period (C3 – 7–12 months) see a rapid rise in second birth rates from the first to the second interval. This confirms an alternative strategy where some women receive the cash benefit while they take additional (unpaid) parental leave after the paid parental leave period of one year, but return to the labour market before having a second birth. Those not taking any leave (C1 – 0 months) have lower birth rates and see a peak somewhat later than other recipients of the benefit. This is in line with the argument that these mothers want to return to the labour market and have a period in employment before having a second child.

A general conclusion is that there are significant differences in how different groups have responded to the policy and its consequences on timing of second births, although it is difficult to say whether the policy has changed fertility behaviour in any particular way. What is clear is that couples choose different strategies concerning work, childcare, and childbearing.

CONCLUDING REMARKS

The two examples discussed in this article are based on recent research (Lappegård 2010; Aassve and Lappegård 2010). They show that couples have responded to family policies in manifold ways, both in terms of childcare and in terms of timing of fertility. The parental leave policy, including exclusive fathers' leave, has given fathers greater potential to get involved in childcare. My first example shows that policies that promote paternal involvement in childcare and gender equality are positively associated with second births. The childcare cash-benefit policy has enabled greater flexibility in making decisions about work and childcare. My second example shows that the cash-benefit policy is associated with acceleration of childbearing, but there are important differences across groups by length of cash benefit use.

Both examples have limitations, the most important of which is that we do not know whether these relationships are a result of selection. For instance, it might be that men who take parental leave are likely to do so because they are more child-oriented than others, and thereby more interested in having more children. Even if these examples cannot show any causal effects of the policy on fertility outcomes, they do provide some valuable insight for further discussion. In order to better understand causal relationships between family policy and childbearing future research needs to use research designs that pay careful attention to the impact of selection effects and unobserved heterogeneity.

REFERENCES

- Aassve, A. and Lappegård, T. 2010. Cash-Benefit Policy and Childbearing Decisions in Norway. *Marriage & Family Review* 46, 149–169.
- Crompton, R. 2004. Care Responsibilities, Occupational Differences and the Impact of Promotion Aspirations. *25th CEIES Seminar: Gender Statistics – Occupational Segregation: Extent, Causes and Consequences*. Stockholm.
- Duvander, A. Z., Lappegård, T. and Andersson, G. 2010. Family Policy and Fertility: Fathers' and Mothers' Use of Parental Leave and Continued Childbearing in Norway and Sweden. *Journal of European Social Policy* 20(2), 45–57.
- Ellingsæter, A-L. 2007. "Old" and "New" Politics of Time to Care: Three Norwegian Reforms. *Journal of European Social Policy* 17(1), 49–60.

- Gauthier, A. H. 2007. The Impact of Family Policies on Fertility in Industrialized Countries: A Review of the Literature. *Population Research and Policy Review* 26, 323–346.
- Håkonsen, L., Kornstad, T., Løyland, K. and Thoresen, T. O. 2001. *Kontantstøtten: effekter på arbeidstilbud og inntektsfordeling* [Cash-Benefit: Effects on Labour Supply and Income Distribution]. Rapport 5, Statistics Norway.
- Kangas, O. and Palme, J. 2009. Making Social Policy work for Economic Development: The Nordic Experience. *International Journal of Social Policy* 18: 62–72.
- Knudsen, C. 2001. Kontantstøtten og mødres yrkesaktivitet i Finland og Norge: Likheter og ulikheter [The Cash-Benefit and Mothers' Employment in Finland and Norway]. *Søkelys på arbeidsmarkedet* 18, 121–127.
- Korpi, W. 2000. Faces of Inequality: Gender, Class and Patterns of Inequalities in Different Types of Welfare States. *Social Politics* 7(2): 127–191.
- Lappegård, T. 2010. Family Policies and Fertility in Norway. *European Journal of Population* 26, 99–116.
- Neyer, G. 2003. Family Policies and Low Fertility in Western Europe. *Max Planck Institute for Demographic Research Working Paper*, 2003-021.
- Rønsen, M. 2001. *Market Work, Child Care and the Division of Household Labour: Adaptations of Norwegian Mothers before and after the Cash-for-Care Reform*. Rapport 3, Statistics Norway.
- Rønsen, M. 2005. *Kontantstøttens langsiktige effekter på mødres og fedres arbeidstilbud* [Long Term Effects of Use of the Cash-Benefit on Mothers' and Fathers' Labour Supply]. Rapport 23, Statistics Norway.
- Schöne, P. 2004. Labour Supply Effects of a Cash-for-Care Subsidy. *Journal of Population Economics* 17(4), 703–727.
- Sleebos, J. E. 2003. Low Fertility in OECD Countries: Facts and Policy Responses. *OECD Social, Employment and Migration Working Paper* 15.

REVIEW

PREFACE AND MAIN FINDINGS of the *Demographic Portrait of Hungary 2012: Report on the Conditions of the Hungarian Population*.

Edited by Péter Öri and Zsolt Spéder. Demographic Research Institute, HCSO, Budapest, 2012. p. 168. Translated by Judit Zinner.¹

PREFACE

Three years have passed since the researchers of the Demographic Research Institute of the Hungarian Central Statistical Office (HCSO) wrote and published the previous demographic portrait of Hungary, which discussed the demographic processes of the country. The aim of the 2012 issue is similar: to offer basic knowledge and accurate interpretations, supported by data and based on solid scientific analyses, for the benefit of all interested in the subject in a concise and easily understandable way.

The volume is basically characterized by continuity, i.e. it relies on the previous one, preserving its subject matter and structure but introducing considerable novelties. The volume consists of 12 chapters, covering all major fields of demography: fertility, nuptiality, mortality, ageing, and migration. The chapters on these topics concentrate on introducing and interpreting the fundamental processes of the Hungarian society. Others like those dealing with family policy or retirement aim at introducing the current state of the relevant institutional system. And last but not least, population projection is also included, which is probably the most popular and most debated issue of demography.

The structure of the chapters is uniform, as far as the subject and the available data made it possible. All topics are discussed in international comparison as we are convinced that this perspective is indispensable to better understand the Hungarian phenomena. We find it especially important to compare results not only with Western European countries but also with former socialist ones. Although we are interested in current processes (i.e. the previous two or three years), it is often indispensable to refer to earlier developments as well, mostly to the period beginning with 1989–1990. Tendencies of even earlier periods are only mentioned in certain special cases.

¹ The whole volume can be downloaded soon from the English website of the Demographic Research Institute: <http://www.demografia.hu/english/>

The publication of the volume has been financially supported by the European Union in the framework of Population Europe, a collaborative network of Europe's leading demographic research centres ([www. population-europe.eu](http://www.population-europe.eu)).

Demography can be considered a 'lucky discipline' of empirical social science as it can rely on a huge number of data and the events it deals with are relatively standardized and can easily be interpreted in international comparison. For our present purposes we used three basic types of data sources, which differ in nature. As regards births, marriages, divorces, and deaths we relied on the vital statistics regularly produced and published by the HCSO. The second important sources were national censuses taken every ten years. Unfortunately, the results of the latest Hungarian census of 2011 are not available yet. Waiting for them would have considerably delayed the publication of the present volume and we could not have fulfilled our promise to publish a similar publication every three years. Our third source is the survey *Turning Points of the Life Course* by the Demographic Research Institute. This project of data collection and research enables us to make a dynamic analysis by following a certain group of people and taking a survey of the changes in their living conditions and values every three or four years. This project is part of the international *Generations and Gender Programme* (GGP), which offers a framework for studying the major demographic phenomena in several European countries using the same methodology. Further sources were used as well, e.g. *European Social Survey*. All references are, naturally, duly indicated.

We hope that this publication will meet the demands of the representatives of several fields and professions. It may prove useful for decision makers in social policy, researchers, university professors, students, the press, and, hopefully, the general public interested in population issues.

MAIN FINDINGS

Characteristics of Partnerships

The past two decades can be characterized by a decrease in the number of marriages. Between 1990 and 2011 the number of first marriages decreased by 50 per cent and that of remarriages by 36 per cent. The total first marriage rate for women is 0.39, which means that the majority of women (61%) will never get married if this tendency prevails.

The mean age at first marriage is steadily rising. In 2010 it was 28.7 years for women and 31.4 years for men, which means a rise of 6.7 years with regard to both sexes as compared to the data of 1990.

Public opinion considers trial marriage the most recommended form of partnership for young people and the preference for marriage without previous cohabitation is gradually decreasing. Cohabitation as the final form of partnership is slightly increasing but it still cannot be regarded as overly popular.

Raising children in a family by of married parents is no longer a primary issue in the assessment of various forms of partnerships. While earlier the overwhelming majority of the population deemed the legalization of the parents' relationship necessary and important, today this view is definitely a minority opinion.

Divorce

The total divorce rate, which is an estimate of marriages ending in divorce, steadily increased between 1990 and 2007, reaching 0.45, then stagnated until 2010. This means that almost half of the marriages contracted in 2007 and in the following years are likely to break up.

The average duration of dissolved marriages is rising, too. In 2010 couples broke up after having been married for 12.9 years on average, so the duration of dissolved marriages grew by six months in three years. The rate of divorces following long marriages has similarly increased. While in 1990 only 14.6 per cent of all divorces terminated a marriage of 20 years or more, in 2000 this rate was already 21.6 per cent, and in 2010 it reached 27.5 per cent. Between 2007 and 2010 the increase was 3 percentage points.

Public opinion polls indicate that the attitude towards dissolved partnerships has considerably changed in the past 15 years. The requirement that parents should stay together in the best interest of their children has definitely lost its force.

Cohabitations are more likely to break up than marriages. Every third cohabitation terminates within five years, while only 10 per cent of all marriages dissolve in the first five years. 28 per cent of couples living in cohabitation still live in consensual union in the fifth year of their partnership but nearly 40 per cent marries their partners in the meantime.

Fertility

At present, fertility in Hungary is the lowest in Europe and, in fact, in the whole world.

The tendency of having children at an ever higher age has continued in the discussed period. The mean age of mothers at birth reached 30 years in 2011, which is the average age in the European Union.

The key factors contributing to the postponement of childbearing are the longer period of education, the shift in the forms of partnerships, the decreasing popularity of marriage, and the difficulties of making an independent living.

The rate of college or university graduates is rapidly growing among mothers, which is one of the causes why reconciling work and motherhood is more important than ever.

It is highly probable that the rate of parents with two children will decrease and the rate of childlessness will increase, just as the ratio of couples with one or three children.

A significant portion of planned children are not born. Only one third of couples are able to fulfil their childbearing intentions in the short run (within three years). This rate is much lower in Hungary than in Western Europe.

Family Support System – Childraising – Employment

The Hungarian family support system is very generous and prefers children being cared for at home by their mothers until the age of 3. While employed parents get means-tested child-care fee (GYED) for two years after the birth of the child, unemployed and inactive ones get child-care allowance (GYES) for three years, which is a fixed sum and usually much less than the former one.

Besides these two major forms of support, family allowance provided for all families, childrearing support (GYET), and the reorganized family tax relief can be considered as the core of the Hungarian family support system. Hungary spends more on these allowances in proportion to its GDP than the European countries in general.

Mothers usually do not have paid work when they take care of their children aged under 3, which is due to the inflexibility of family policies and the labour market, which rarely make part-time jobs possible.

Trends in Cause-Specific Mortality

Hungary produces a considerable surplus mortality, not merely as compared to the most developed countries of the European Union but also to the other new Member States.

Mortality among men younger than 65 is 2.5 times higher than in the most developed EU states and 1.2 times higher than in the countries joining the EU in 2004 and 2007. The mortality rate of young to middle-aged men is, however, slowly decreasing. The relative mortality disadvantage of men above 65 is more moderate but still considerable: it is 1.5 times higher than the respective data in the most developed countries but just a few per cent higher than the average mortality rate of the countries joining the Union in 2004 and 2007.

High mortality in Hungary mainly follows from the high number of cardiovascular deaths, especially deaths due to ischaemic heart diseases.

Earlier experience shows that economic recession influences mortality primarily among vulnerable social groups. Should the trends influencing the whole population stagnate in the meantime, it may contribute to the deepening of the social discrepancies of mortality.

Social Disparities in Health Status

In 2009 there were considerable differences in the health status of various social groups. A person's state of health closely correlates with the level of his or her education and income. The health status of people in the lowest two income quintiles is especially poor.

Between 2001 and 2009 the only group in which health did not deteriorate was middle-aged people with higher education. At the same time, the situation changed for the worse among people aged 25-54 with primary education to an especially great degree.

According to the latest health survey of 2009, people suffered from 2.8 health issues on average. High blood pressure was the most frequent (32.5 per cent), followed by musculoskeletal disorders and psychical problems.

In the case of issues that are more frequent among people of lower social status, the level of education made a major difference regarding high blood pressure, chronic anxiety and diabetes, whereas income differences mattered more in the case of arrhythmia, cardiac infarction and tumours. In the case of other illnesses or issues both factors make their influence felt.

In the field of secondary prevention, taking blood pressure is the only method available for nearly all citizens.

Ageing

Today, every sixth Hungarian person is aged above 65.

In international comparison, Hungarian society does not belong to the oldest societies of the Continent, whose main reason is the unfavourable mortality rates among the middle-aged and the elderly.

In the past two decades, the life expectancy of old people has considerably improved. Between 1990 and 2010, the life expectancy of men and women at age 65 grew from 12 to 13.8 years and from 15.3 to 17.6 years, respectively. The present level of old age life expectancy is, however, far below the levels in Western and East Central Europe. The processes of the recent years do not show signs of a catch-up.

Being alone is a characteristic of the elderly; however, in Hungary hardly more than 10 per cent of persons above 65 feel often or permanently lonely.

Pension System and Retirement

At the beginning of 2011 the number of people receiving pension or some pension-type benefits was 2,921,000. The number of pensioners was steadily growing between 1990 and 1999, slowly decreasing and stagnating between 1999 and 2008, and drastically decreasing after 2008.

In 2011 the largest group of pensioners was people above retirement age receiving old-age pension. They numbered 1,462,000. Old-age pensioners below retirement age totalled 238,000. The second largest group was people receiving disability pension, numbering 722,000. 47 per cent of them have not reached retirement age.

In 2010 state expenditure on pensions amounted to nearly 11 per cent of the Hungarian GDP (3,043.8 billion HUF).

The average pension was 86,000 HUF, which was 65 per cent of the average net income for that year. This rate can be considered high in European comparison.

The rate of pensioners living in income poverty is lower than the national average. In 2010, the rate of pensioners who lived below the poverty line was 4 per cent.

Household and Family Structure

The major change affecting the structure of households was a considerable increase in the number and rate of one-person households. Between 1990 and 2005, their rate grew from 24 to 29 per cent. In 2005, 1,163,000 households fell into this category, which meant that 12 per cent of the population lived alone. Two thirds of them were women. Every second woman above 70 lives alone and their overwhelming majority is widowed. The largest group among men living alone is unmarried men, followed by divorcees and widowers.

The rate of couple-type families decreased from 80 per cent in 1990 to 71 per cent in 2005, while the 5 per cent of cohabiting couples gradually tripled during the period. The rate of lone-parent families increased from 15.6 to 16.8 per cent, with families consisting of mother and child growing from 80 to 87 per cent within the category.

Childlessness is more common in cohabiting than married unions, and the rate of couples with two children is smaller within the former group. Among families with children, married couples have the highest number of children.

In the period between 2003 and 2008, 9 per cent of newborn babies arrived into lone-parent families. Until they turned 15, 27 per cent of children experienced living in a lone-parent family, spending an average of 23 months in such a household. 7 per cent of them already lived in a so-called mosaic family that includes a stepparent and possibly also half- or stepsiblings. However, in the mid-2000s the majority (73 per cent) of 15-year-olds still lived with their biological parents.



Internal Migration

In the first half of the 1990s, internal migration continued to decrease, reaching its nadir in 1994 with 360,000 movements. From the second half of the 1990s internal migration stagnated around 400,000, then it suddenly increase in 2006 and 2007 but the increase did not prove to be lasting. Due to the crisis beginning in 2008, the number of migrations fell back to the level of the mid-1990s.

The intensity of migration greatly differs by age group. Irrespective of the type of migration, probability it is the highest among persons aged 20–29. Those under 19 are more mobile as regards temporary migration, while in the case of permanent migration this applies to those aged 30–39. The intensity of migration tends to decrease considerably among people above 40.

Comparing the lure of various types of settlements, we can find that the capital, Budapest is more attractive than villages and towns. It is primarily the capital and the sub-regions belonging to its commuter belt that profited the most from migration. The majority of highly urbanized regions (cities with county status) are similarly characterized by a positive migration balance.

Data on net migration show that Budapest extremely centralizes the movement of the population. The economic crises directed migration towards this central region, enjoying more favourable conditions in the labour market. At the same time, the role of regional centres seems to be more moderate, just like migration from the East to the West.

International Migration

Following the accession of Hungary to the European Union in 2004, at first a slight growth could be observed in the number of immigrants, then the rise became dramatic due to the changing legal regulations in 2008. The number of immigrants rose to 35,000 that year.

The distribution of immigrants by sending countries changed as well. The rate of people arriving from the neighbouring countries – especially Romania – has decreased lately. The rate of immigration from Romania was 50–57 per cent in the early 2000s, then it fell below 30 per cent after 2007. However, the rate of people coming from the EU15 and from Asia has increased.

Immigrants still belong to younger age groups but the rate of older age groups has increased since the early 1990s.

Immigration into Hungary can be called modest in European comparison as regards both the number and the rate of immigrants per 1000 inhabitants.

The mirror-statistics of the destination countries indicate that the number of emigrants from Hungary grew after the accession, especially after 2007. The number of Hungarian citizens residing in various European countries in 2011

was about 148,000 (by nearly 60,000 more than in 2001). Two thirds of them lived either in Germany (50 per cent) or Austria (15 per cent).

Structure and Future of the Hungarian Society

The population of Hungary has been shrinking ever since the early 1980s. Between 1981 and 2012 it decreased by nearly 750,000, out of which a loss of about 70,000 took place in the past three years.

Besides the overall process of demographic ageing, the age structure is characterized by the decreasing rate of young people. Between 2009 and 2012 these processes continued, so today nearly one quarter of the population is above 60 and every sixth person is aged 65 or more, whereas the rate of those under 20 is merely one fifth.

The ageing index is steadily rising. The number of persons aged 60 or more has been higher since 2007 than the number of young people under 20. At present, the difference is 12 per cent.

According to the latest population projections, a further decrease and an ever stronger ageing process can be expected. By 2060 the number of the population will decrease by one and a half million, the rate of the old people (60+) will approach 40 per cent, and the number of old people will be more than double than the number of those under 20.



