



**LUND UNIVERSITY**  
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# **Transition and Fertility in Central and Eastern Europe**

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## **Abstract**

Shortly after the start of the transition from planned to market economy in Central and Eastern Europe and the former Soviet Union, an overall drastic fertility decrease began in all the countries of this region. This thesis focuses on the theoretical and empirical connection between transition and fertility. With the use of Gary Becker's New Home Economics as a theoretical framework, fertility data from the transition countries and other parts of Europe is studied in order to discuss demographic changes and developments in a short, medium and long run. It is concluded that short term fertility falls most likely were caused or triggered by the shock effects of the transition. Fertility developments in a medium or long term seem to be affected mainly by state policies and norms influencing family life and work. The transition countries appear to be approaching the low-fertility countries in German-speaking and southern parts of Europe in terms of fertility trends, but it is likely that joint EU policies will gain more influence in the future and alter this development.

Keywords: *Fertility, Transition, Central and Eastern Europe, Gary Becker, New Home Economics*

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## **Abbreviations**

<b>ATFR</b>	Adjusted Total Fertility Rate
<b>CCF</b>	Completed Cohort Fertility
<b>CEE</b>	Central and Eastern Europe
<b>CMEA</b>	Council for Mutual Economic Assistance
<b>EU</b>	European Union
<b>FIEF</b>	Fackföreningsrörelsens institut för ekonomisk forskning (Trade Union Institute for Economic Research)
<b>FSU</b>	Former Soviet Union
<b>GDP</b>	Gross Domestic Product
<b>GGCD</b>	Generations & Gender Contextual Database
<b>IMF</b>	International Monetary Fund
<b>OECD</b>	Organisation for Economic Co-operation and Development
<b>TFR</b>	Total Fertility Rate
<b>UNICEF</b>	United Nations Children's Fund
<b>WHO</b>	World Health Organization

# **1. Introduction**

The destruction of the Berlin Wall in 1989, shortly followed by the collapse of the communist regimes of Central and Eastern Europe and the former Soviet Union, became the start of the transition in these countries (Philipov & Dorbritz 2003, p. 22). Due to the very long lifespan of a transition, the outcome and final results of this particular one are not yet certain, but the immediate consequences were severe. Apart from macroeconomic instability, which has been one of the main issues discussed in connection with the transition, all the transition countries experienced drastic fertility falls. During a period of about ten years, fertility dropped from fairly high to alarmingly low levels.

## ***1.1 Aim of the Study***

The aim of this thesis is to study the theoretical and empirical connection between transition and fertility. This relationship will be explored with the help of three main questions: Is there, according to economic theory, reason to expect transition to affect fertility? How did fertility in the transition countries change in the short and medium term so far, and what can be expected to happen further in the medium and long term? As the transition countries economically are approaching the market economies in Europe, are also their fertility patterns becoming more similar to those of other European countries?

## ***1.2 Method and Data***

The theoretical framework of this thesis is a part of the Human Capital Theory, which is called the New Home Economics. More specifically, Gary Becker's reasoning about the demand for children and factors behind fertility decisions will be used. The theory will serve as a background for the analysis of official fertility data, which is obtained mainly from the World Health Organization, the Council of Europe's Demographic Yearbook and the Generations & Gender Contextual Database (GGCD). Other main sources used for the analysis and discussion are various earlier studies on fertility in Europe, and the European transition countries in specific.

## ***1.3 Definitions and Limitations***

According to an IMF classification, the so called transition countries include the countries now belonging to the Commonwealth of Independent States, the Central and Eastern European countries that became members of the European Union (EU) in 2004 and 2007, the Baltic states, Albania,

Croatia, FYR Macedonia and the Asian countries Cambodia, China, Laos and Vietnam (IMF 2000). The countries chosen to be studied in this thesis—which hereafter will be referred to as the *transition countries*—are all the transition countries which became EU members in 2004 and 2007, except for Slovenia, and Russia (Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Russia and Slovakia). These ten countries were chosen first of all, since the idea was to focus on transition in Europe. Secondly, the development has been fairly homogeneous in all these ten countries and thirdly, most of the reference literature has been concentrating on them. All former Yugoslavian states were left out due to the prevalence of violence in this region during part of the transition.

Throughout the thesis, *other European countries* or *the rest of Europe* will be mentioned. These definitions refer to non-transitional countries of the European Union (EU) and Iceland, Norway and Switzerland.

There are no exact definitions of short, medium and long terms and therefore no distinct borders between them. Short term is here considered to be the first few years following the transition, medium term a period of about 10-15 years and long term what is beyond that.

#### **1.4 Outline of the Thesis**

This thesis is divided into five main chapters. After this first introductory chapter, a general description of the transition will follow. In the third chapter, the theoretical framework is discussed, while in the fourth chapter data and empirical findings are presented and discussed. The fifth chapter summarizes the main conclusions of the thesis.

## **2. On the Transition from Planned to Market Economy**

### ***2.1 Definition of Transition***

The term transition is often used to denote a change from planned to market economy. According to IMF, this kind of transformation generally includes elements such as the liberalization of market prices, macroeconomic stabilization, restructuring and privatization and reforms of law and institutions (IMF 2000). But, as pointed out by Leszek Balcerowicz, the term may also refer to changes of a more political character. Balcerowicz argues that several kinds of transitions have taken place in Europe and other parts of the world during the last 150 years. The transition in Central and Eastern Europe (CEE) and the former Soviet Union (FSU) differs from the rest in a number of ways—mainly because of its very large scope, with major political as well as economic changes occurring at the same time, but because of its relatively non-violent character as well (Balcerowicz 1994, p. 75ff.). There is a large number of possible explanations and reasons behind this transition, but since the aim of the thesis is to concentrate on the effects rather than the causes, no further special attention will be paid to the latter.

As stressed in a World Bank report, a transition should be seen not only as modifications of old policies and adaptations of new ones, but also as a complete change of the economic organization. This includes a change of everything that is supporting the system, such as habits, educational system, youth organizations, the organization of work et cetera. The profound societal changes needed to ensure a successful transition may take a very long time—which is why the transition should be seen as not yet completed—and have a large impact on individuals. For example, new organizations and institutions demand new skills and attitudes, and less influence from the state means more freedom of choice for the individual—but also increased economic risks (World Bank 1996, p. 3f.). Such fundamental changes inevitably create uncertainty, stress and insecurity and lead to temporary crises, according to several sources (World Bank 1996, p. 71) (Philipov & Dorbritz 2003, p. 45).

### ***2.2 Effects of the Transition***

The World Bank points out that in spite of the many obvious negative sides of the planned system in CEE and the FSU—planning inefficiency, lack of consumption goods and economic stagnation, to mention a few—it is important to bear in mind that there were also positive features which disappeared as the transition began. According to the World Bank, these included the provision of basic education, health care and jobs as well as relatively equally distributed income (World Bank 1996, p. 1f.). In an IMF publication, Keller and Heller mention the earlier well-developed social

safety nets of the transition countries, with special attention given to health care and education, and how the charging of fees occurred in these sectors after the transition had started (Keller & Heller 2001). Post-transition tuition fees for earlier state-financed tertiary education in several countries of CEE, are, for example, discussed also by Lundborg and Calin in a FIEF working paper from 2002 (Lundborg & Calin 2002, p. 2).

Apart from the crisis, stress and uncertainty caused by the transition, there were other more concrete effects, visible after the break-down of the communist regimes. Philipov and Dorbritz, the authors of a study published by the Council of Europe, divide the transition process in CEE and the FSU into five phases: Pre-transformation, collapse of the political system, structural caesura, consolidation and sustained upswing. The *structural caesura* is described as the period when the planned economy was no longer functioning and the market economy was not yet properly built up, at the same time as the social security system was undergoing a change (Philipov & Dorbritz 2003, p. 12). An IMF briefing states that the transition started with a number of sudden economic changes. For example did output, measured by GDP, fall in the whole transition area. It is argued that this in large was due to the dissolving of the Council for Mutual Economic Assistance (CMEA), which during communist times regulated the trade and economic ties between the Eastern Bloc countries. As CMEA ceased to exist, the network of intermediate goods and raw material collapsed. According to the same source, inflation increased dramatically, as prices were set free from the previous low levels, which were artificial and regulated in the planned economy (IMF 2000). Philipov and Dorbritz also claim that the start of the transition brought unemployment, large income falls and impoverishment. Moreover, income inequality increased and there were signs of a clear polarization of the society (Philipov & Dorbritz 2003, p. 12).

According to the above mentioned World Bank report, certain groups faced greater risks of becoming poor due to the transition. These groups were for example old people, unemployed and those lacking education—the latter group, since the effects of education seem to have become more important after the start of the transition (World Bank 1996, p. 71). Lundborg and Calin discuss how increased returns to education have led to stronger incentives for the obtainment of higher education (Lundborg & Calin 2002, p. 17). Similarly, Andrew Clark argued that there was evidence of rewards to human capital training in Russia after the transition (Clark 2003, p. 29).



### ***2.3 The Situation of Women During Transition***

The World Bank describes how women have been particularly affected by the transition. During the communist rule, women were expected to, and to a very large extent did, participate full-time in the labour market (World Bank 1996, p. 72), and according to UNICEF, the female labour force participation rate in the transition countries was high, when compared to the rest of the world (UNICEF 1999, p. 6). Labour force participation was in part enabled thanks to extensive state provision of childcare. The transition did, however, bring a major decline in this provision (World Bank 1996, p. 72).

The view on the role of women also changed in several of the transition countries. Market work was no longer seen as a social duty, instead a woman's main task was considered to be household work. The female labour force participation declined and women suffered from labour market discrimination and were laid off before men during the increase in unemployment. They also made up a large share of the unemployed in many transition countries, all according to the World Bank, which further argues that part of the decline in labour force participation may be voluntary, but that part of it probably is due to discrimination or inability to work due to loss of childcare (World Bank 1996, p. 72). These developments will be discussed further in the empirical chapter. Also for instance UNICEF discusses how female labour force participation declined in a majority of the transition countries after 1989, even if it is also argued that male participation rates declined as well (UNICEF 1999, p. 6).

### ***2.4 Recovery and Differences between the Transition Countries***

In his book "Transition and Economics" from 2000, Gérard Roland points out that it is not certain whether the transition countries will ever become capitalistic or if the formulated goals for the transition will be reached. Moreover, the outcome depends on the initial conditions in each country (Roland 2000, p. xix f.). Authors of several other working papers also stress this last point and the fact that the differences between the countries prior to transition indeed were large (see for example IMF 2000).

In a report from the World Bank, a division is made between the Central, South Eastern, Eastern European and Baltic Countries as one group, and the rest of the former Soviet Union as another, when comparing the transition effects. The former group of countries is described as having recovered faster from the drastic falls in GDP and as not having experienced such large increases in income inequality and poverty as the countries of the former Soviet Union (World Bank 2002, p.

xiii). One should also keep in mind that Russia suffered hard from the financial crisis in 1998. This reasoning is in line with the arguments of Gros and Steinherr, who claim that “the reforms have been less successful the further one goes east”, making a difference mainly between Central European and FSU countries (Gros & Steinherr 2004, p. 7). Russia and Hungary are mentioned as two opposites, with Hungary as an example of a country where reforms were very successful. The former group of countries was, according to Gros and Steinherr, further helped by support from the EU in connection with the preparation for membership, obtained in 2004 and 2007, and the possibility to redirect trade to the non-transitional European countries (Gros & Steinherr 2004, p.60).

Differences seem to be prevalent also within this more successful group, however. When comparing the reform outcomes in 2003, Philipov and Dorbritz found that the economic achievements of Bulgaria and Romania were more compatible with that of Russia, meaning a more severe economic collapse and a slower recovery (Philipov & Dorbritz 2003, p. 49).

## **2.5 Summary**

In this chapter, it was emphasized that the transition had economic as well as political effects. The macroeconomic shock was followed by structural changes, including new attitudes and values—not least were attitudes towards the role of women affected. It was further concluded that some positive features of the communist regimes, mainly related to the provision of welfare, disappeared when the transition started. Due to the very large scope of transitional changes, the transition studied in this thesis is considered not to be completed, neither is the final outcome certain. It does seem as if some countries, namely Russia, Bulgaria and Romania, have suffered more from the transition and that others—partly thanks to the fact that they have been approaching the EU—have recovered faster.

### **3. Theoretical Framework: Why Would We Expect the Transition to Affect Fertility?**

In this chapter, transition effects will be linked to theories of household behaviour and the demand for children. This will show why, according to economic theory, it is possible to expect that a transition will lead to fertility changes. In the first subsection, some important basic theoretical concepts will be introduced. Thereafter, factors affecting the demand for children will be discussed and related to a few of the transition effects described in the previous chapter.

#### ***3.1 The New Home Economics: Household Production Functions***

The American economist Gary S. Becker elaborated the traditional microeconomic theory of consumption and household behaviour and made it applicable to fertility decisions (Easterlin 1975, p. 54). Among other things, the so called New Home Economics meant a new way of using economic theory to explain non-economic behaviour (Rosen 1993, p. 28). Becker introduced what he called a *household production function*, on which his reasoning on fertility and the demand for children is based. The function shows how an individual uses both market goods and time as inputs to produce household commodities. These commodities, among which children are included, are consumed in the household to give utility. Since the commodities can not be purchased in the market, they do not have market prices, but shadow prices. The shadow prices are the same as their production cost: the cost of time inputs and the cost of inputs of goods used in the commodity production (Becker 1991, p. 23f.). The optimal allocation of time for an individual in order to maximize utility is such, that the marginal products (in terms of contribution to utility) of household work and labour market work are equal (Becker 1991, p. 32).

Next, the discussion is elaborated to be valid for a household consisting of two people. Basing his arguments on the theory of comparative advantage, Becker showed that there were benefits to be made from specialization and exchange in a household consisting of more than one individual (Becker 1991, p. 36). Each individual would do the kind of work where he or she was relatively more efficient (Becker 1991, p. 32). A person with higher comparative advantage in market work, able to earn a relatively higher market wage, would concentrate on this kind of work. The person with higher comparative advantage in household work would use his or her “cheaper” time at home (Cigno 1991, p. 24) (Joshi 1998, p. 165).

The result would, according to Becker, be a sharp division of labour, since investments in sector-specific human capital give more return as more time is spent in the sector where the specific capital is used (Becker 1991, p. 34). Becker argued that biological differences between the sexes and specialized human capital investments were the factors behind what he calls the traditional sexual division of labour (meaning women doing mainly household work and men working outside the home) in “all societies” (Becker 1991, p. 37). More investments in household human capital and less investments in market human capital had resulted in lower market wage rates for women than for men, and in women having higher productivity than men in household activities (Becker 1991, p. 42).

### **3.2 The Demand for Children**

“Commodities like children, which are presumed to have modest price elasticities, because they do not have close substitutes, generally do not change by large amounts except during severe business cycles” (Becker 1991, p. 148). Becker’s statement can be used as a starting point for our discussion about transition and fertility. By comparing the transition with a very extreme case of a business cycle—possible, since some of the macroeconomic effects are the same—we can expect that the demand for children indeed will be affected by a transition. Elements of shock, destabilization and uncertainty during a transition are very likely to have negative effects on fertility and to lead to fertility postponements or even lower total fertility.

In his book “A Treatise on the Family” Becker argues that besides severe macroeconomic downturns, the main factors behind changes in the demand for children are the price of children, the real income of parents and the interaction between child quality and quantity.

### **3.3 The Price of Children**

To explain how prices and real income affect the demand for children, the quality (see definition of this concept further below) of children is first ignored. Simply put, a family tries to maximize utility, received from the quantity of children ( $n$ ) and all other commodities ( $Z$ ). These are combined into the utility function of the family:

$$U = U(n, Z)$$

As explained earlier, children, like all other commodities, are produced with inputs of market goods and parents' time, and it is assumed that relatively more of the mother's than the father's time is used. The family's utility is maximized subject to a budget constraint, where  $p_n$  is the total cost of producing and rearing one child,  $\pi_z$  is the cost of  $Z$  and  $I$  is full income:

$$p_n n + \pi_z Z = I$$

If the relative price of children increases, the demand for children will decrease, and the demand for other commodities will increase instead, all other things constant. Since the production of children is time-consuming, the main factor influencing the price of children is the price of parents' time. One of Becker's main thoughts is that increased wages for women will lead to a higher rate of participation on the labour market, in turn causing lower fertility, which has been observed in the developed countries since the end of the 19<sup>th</sup> century (Becker 1991, p.140). A higher wage for mothers means a higher cost of children, since the wage is the same as the opportunity cost of time spent at home taking care of the children (Joshi 1998, p. 162).

A second major factor affecting the price of children is government programs, which provide aid to parents, and thereby decrease the cost of children. Becker mentions direct financial aid, which, according to him, enables mothers to stop working and in this way reduces the opportunity cost of children (Becker 1991, p. 139). It is also possible to apply this reasoning to other kinds of government transfers, such as free childcare and free university education, which, as argued in the previous chapter, were common in the transition countries before the transition. Thus, it is possible to suspect fertility to be negatively affected when the loss of these government transfers raise the relative price of children.

As far as the price of parents' time is concerned, there is reason to question the validity of Becker's theory today and to complement it with more recent studies. First of all, Becker's idea of nuclear families with a clear division of labour between husband and wife—including the assumption that the wife is doing mainly household work, but no market work—does not seem to be a very suitable way of describing the situation in industrialized countries today. Ahn and Mira, for instance, refer to OECD data and claim that average female labour participation rates in the OECD countries increased from around 44 percent to over 60 percent between 1970 and 1995. Moreover, the increase seems to be a continuing trend (Ahn & Mira 2002, p. 669). Becker's theory has also received criticism for its lack of gender perspective and for not paying enough attention to the economic situation of men and the effect it has on demographic trends (Oppenheimer 1994, p. 294).

Secondly, even if a negative relationship between female labour force participation and fertility indeed has found support in many studies, later research on industrialized countries has shown the opposite relationship. This is discussed by, among others, Francesco C. Billari in his article “Europe and its Fertility: From Low to Lowest Low”. Billari claims that female labour force participation and fertility have been positively correlated in OECD countries during the last 20 years, and that total fertility now is higher in countries with higher shares of female labour market participation (Billari 2005, p. 64). Also Ahn and Mira stress this positive relationship (Ahn & Mira 2002, p. 668). As mentioned in chapter 2, women in the FSU and CEE took part in market work to a very high extent prior to the transition. In the light of what is known from the later studies of industrialized countries, it is perhaps more logical to expect the lower labour market participation rate of women after the start of the transition to have negative rather than positive effects on fertility (although it is probably not labour participation alone which explains the fertility behaviour, but rather its relation to other factors, such as for instance attitudes, labour market policies and childcare provision).

### **3.4 Real Income**

The sudden unemployment and impoverishment that appeared during the structural caesura caused large income losses, leading to a more restricted budget constraint, which can be expected to have a negative effect on fertility. Moreover, as suggested by Philipov and Dorbritz, it is quite possible that a larger supply of consumer goods, brought by the new market economy, change the patterns of consumption and affect the demand for children negatively. In short, income will be used on other goods, demand for which conquer the demand for children (Philipov & Dorbritz 2003, p. 53).

Since the theory of demand for children is based on microeconomic reasoning, an increase in real income would generally be expected to induce a higher demand for different commodities—with children being of no exception. Becker points out, however, that even if this used to be true, the relationship between wealth and fertility has been negative in the Western world since the 19<sup>th</sup> century. He claims that this is due to the interaction of quality and quantity, causing the price of children to actually rise as income gets higher (Becker 1991, p. 144). As explained by Sherwin Rosen, “child quality is the other side of quantity” and higher income leads to a higher demand for child quality, a substitution for quantity. “On the whole, more total resources are invested in children in higher income families and countries through greater per-child investments, even if the numbers of children are smaller.” (Rosen 1993, p. 29).

### **3.5 The Interaction between Quality and Quantity**

Adding quality ( $q$ ) to the discussion means that the family's utility function will be slightly changed to include  $q$ :

$$U = U(n, q, Z)$$

The constant cost of a unit of quality ( $p_c$ ) is now also included in the budget constraint:

$$p_c q n + \pi_z Z = I$$

Quality refers to the quality of life and when parents invest in quality of their child, they invest time and money in order to improve the present and future quality of life of the child. Quality may include things like health, education and culture (Cigno 1991, p. 85f.). A main assumption is that all children in one and the same family have the same amount of quality. When maximizing utility subject to the budget constraint, shadow prices of quantity and quality will be derived. The shadow price of quantity depends on the quality and vice versa, since higher quality means that each child will cost more, and a larger quantity means that raising quality will be more expensive, since a larger number of children are affected (Becker 1991, p. 145).

If an exogenous increase in quality occurs, the shadow price of quantity will increase. The higher price of quantity reduces the demand for quantity, and this in turn increases the demand for quality even more. This interaction continues until a new equilibrium is reached. If quality and quantity have a very strong interaction, a small change in quality can lead to a quite big change in quantity and vice versa. One main assumption, though, is that quality and quantity are not close substitutes. If they were, one of them could be substituted away completely (Becker 1991, p.146 f.).

In times of uncertainty and when jobs are no longer guaranteed by the state (as they to some extent were during communist times) higher quality and investments in human capital—for example in the form of tertiary education—will be of larger importance. Moreover, as mentioned in the previous chapter, there is evidence of increased returns to education in many of the transition countries. This may lead to a decrease in fertility in a number of ways. Parents who choose to increase their own human capital through more and longer education, may be forced to postpone the birth of their children. A postponement may in turn lead to a reduction of the total number of children, since less time will be left for producing children. Increased returns to education, meaning a higher income of parents, may, as discussed above, lead to a substitution of quality for quantity. Higher importance of

human capital and new societal demands for quality may also mean that parents wish for more quality for their children, thus substituting away quantity.

### **3.6 Summary**

To sum up, there are several reasons why transition can be expected to influence the demand for children negatively: Firstly, shock and uncertainty may cause postponements or decisions not to have children at all. Secondly, the cost of children increases as government transfers, such as free education and childcare, disappear. Thirdly, that fewer women participate in market work seems to be negatively related to fertility. Fourthly, unemployment, impoverishment and a wider range of market goods to choose from lead to a tighter budget constraint. Lastly, increased importance of education for parents as well as children may lead to postponements and less demand for quantity, due to the interaction between quality and quantity.



## 4. Empirical Findings

While the previous chapter showed why we can expect fertility to be affected by a transition, according to economic theory, this chapter will focus on what actually has happened to fertility in the transition countries until now and possible future developments. Due to the long lifespan of a transition, a suitable approach is to divide the discussion into a short, a medium and a long term. In the first subsection, fertility statistics will be presented. The second subsection discusses fertility changes in the short run, while the following subsections will present changes and factors which could possibly further affect fertility in the medium and long run.

### 4.1 Fertility Statistics from the Transition Countries

#### 4.1.1 Definition and Measures

In demographic terms, *fertility* is defined as the “frequency of live births”—the actual number of births observed within a certain group (Council of Europe 2004, p. 123)—and should not be mixed up with the term *fecundity*, meaning the physiological ability of having children (Dribe & Stanfors 2005, p. 13).

A central indicator, common when measuring and comparing fertility, is the *total fertility rate* (TFR). The TFR is a cross-sectional measure of fertility during a certain period of time, usually a year. It shows the average number of children that a woman would give birth to during her life, if she survived her reproductive years<sup>1</sup> and gave birth according to the age-specific fertility rates for the period measured (Dribe & Stanfors, 2005, p. 37) (Nilsson 2004). In the developed countries, a fertility rate of about 2.1 is considered necessary for the population replacement level to stay intact (Dribe & Stanfors 2005, p. 44). The definitions *low* (TFR below 2.1), *very low* (TFR below 1.5) and *lowest-low* (TFR below 1.3) fertility are sometimes used (Billari 2005, p. 58).

One of the disadvantages with the TFR is that it does not show the actual birth rates. A general postponement of births may result in a decreasing TFR before enough time has passed for a stabilization to occur. The opposite is also possible: If women for some reason start giving birth during younger ages than before, while women of earlier cohorts have not reached the end of their reproductive years, the result may be an increasing TFR, even if the average number of children per woman during her lifetime has not increased. Due to this, it is sometimes difficult to tell whether

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<sup>1</sup> The definition of reproductive years differs, but according to a majority of the sources, it is when a woman is between 15 and 49 years.

TFR changes reflect actual *quantum* effects (changes in the number of births) or *tempo* effects (changes in the timing of births) (Stankuniene & Jasilioniene 2008, p. 709).

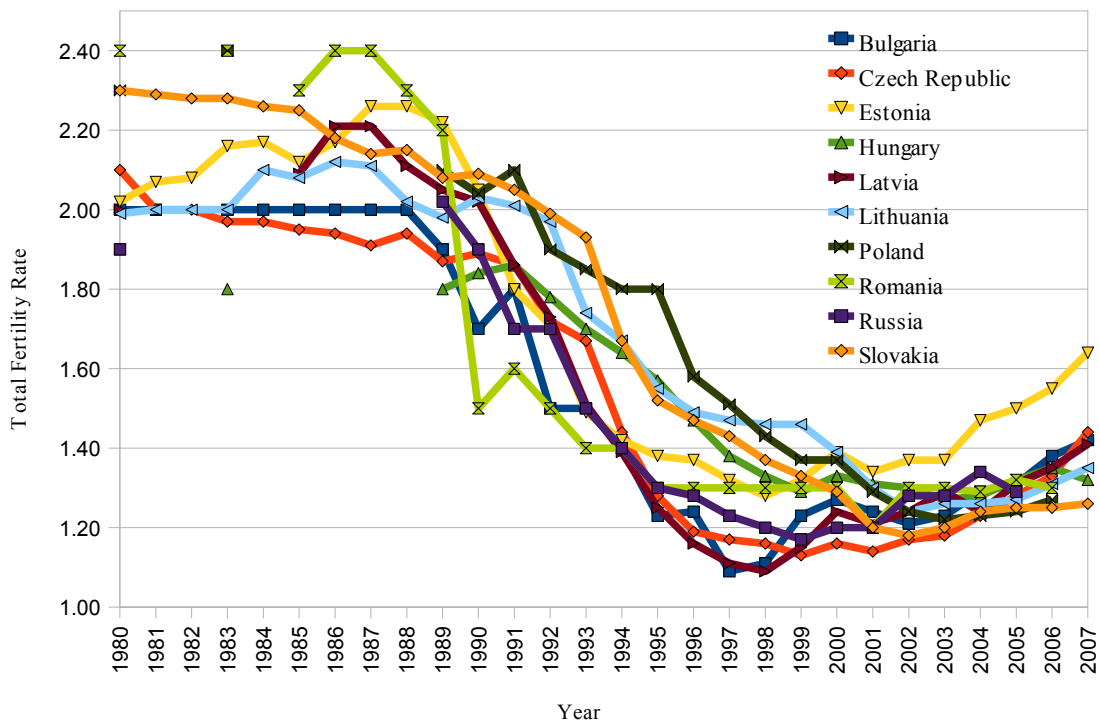
Since the TFR is sensitive to tempo fluctuations in the short run, sometimes an *adjusted total fertility rate* (ATFR) is used. Such measures are supposed to provide the actual, underlying period fertility, free from tempo distortions (Frejka & Sobotka 2008, p. 22). One such kind of ATFR is developed by Bongaarts and Feeney. Although their measure has been criticized by several researchers due to unrealistic, and sometimes very data-demanding, assumptions as well as interpretation difficulties, others disagree and claim that the Bongaarts-Feeney ATFR gives fertility figures closer to the true levels (Sobotka 2003, p. 473) (Frejka & Sobotka 2008, p. 22).

The *completed cohort fertility* (CCF) is the actual number of children that a woman, belonging to a certain cohort, on average has given birth to when she has reached the end of her childbearing years. This longitudinal measure gives the true fertility figure and shows quantum effects, but it has the disadvantage of providing information with a rather long time lag.

#### **4.1.2 Total Fertility Rates in the Transition Countries**

According to figures from the World Health Organization (WHO), all the transition countries experienced a dramatic decline in fertility levels, measured by the TFR, starting from the late 1980s or early 1990s. Even if some of the countries had shown signs of a slightly decreasing trend prior to this, the decrease that started in connection with the transition was severe and overall. This development is illustrated by diagram 1. The majority of the countries went from close to replacement levels (2.1) or even above that, to lowest-low fertility in only 10-15 years. In absolute figures this means a decrease by between 0.85 and 1 child per woman. The lowest TFR levels were reached in Bulgaria, the Czech Republic and Latvia (1.09, 1.13 and 1.09 respectively). In most cases, the TFR seems to have reached its minimum in the late 1990s—but in some countries it was reached only in the beginning of the 21<sup>st</sup> century. Thereafter, there was a general stabilization and even a slight increase.

**Diagram 1: Total Fertility Rates in the Transition Countries**



Source: WHO 2009 and GGCD 2009

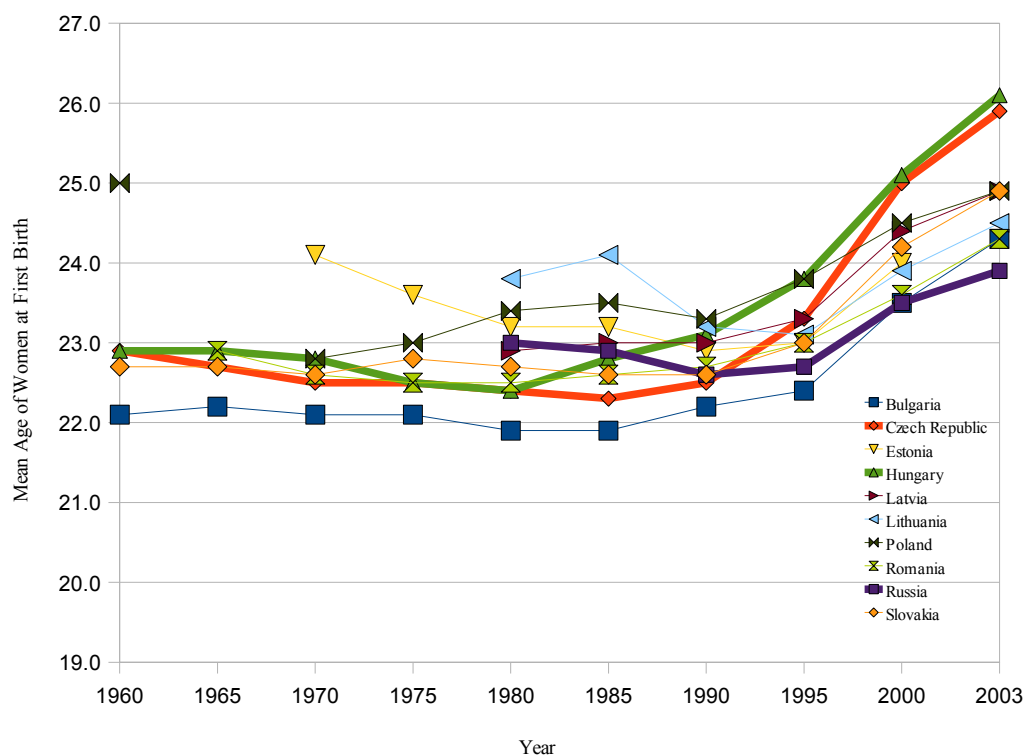
As mentioned previously, the TFR is sensitive to tempo effects. The drastic TFR decrease may therefore be partly due to postponements of childbearing, and the increasing trend during the last few years could be an effect of the TFR adjusting to tempo effects. Even if a convergence of TFRs seems to have occurred, this may not be the case either. In short, the TFR measure is such, that it would not be entirely safe to draw any definite conclusions about exact fertility rates or which countries may have suffered more or less from fertility falls. This is why changes in mean ages and ATFRs will be studied next.

### 4.1.3 Mean Age of Women at the Time of First Birth

Diagram 2 reveals a general increase in the mean age of women at the time of birth of their first child (further referred to as *mean age*) between 1985 and 2003.<sup>2</sup> Prior to the transition, the mean age levels were quite stable for most transition countries for several decades, with the exception of a few countries, such as Poland and Estonia.

<sup>2</sup> The statistics from the Council of Europe were given in five-year intervals. 1985 was the year closest prior to the transition and was chosen as a pre-transition indicator year. 2003 was the latest year from which figures were available. Since the statistics for Russia were not complete, the Russian figures are taken from the Generations & Gender Contextual Database.

**Diagram 2: Mean Ages of Women at the Birth of the First Child in Transition Countries**



Sources: Council of Europe 2004, p. 81 and GGCD 2009

The pre-transition mean age levels were quite low compared to those in other parts of Europe (these figures will be presented further down) and ranged from 21.9 (Bulgaria) to 24.1 (Lithuania). The statistics from 2003 show mean ages ranging from 23.9 (Russia) to 26.1 (Hungary). The largest mean age increases have occurred in the Czech Republic (by 3.6 years, from 22.3 to 25.9) and Hungary (by 3.3 years, from 22.8 to 26.1), the two countries which also distinguish themselves by the highest mean ages in 2003. The smallest mean age increase occurred in Lithuania, where the increase was only 0.4 years, from 24.1 to 24.5. On the other hand, Lithuania had a comparatively high mean age already in 1985. Russia experienced the second smallest increase in mean age, from 22.9 to 23.9. In 2003 Russia had the lowest mean age, followed by Romania and Bulgaria.

The increasing mean ages in combination with the drastic TFR decreases indicate that the TFR fall was at least partly caused by tempo effects. In cases with large TFR decreases not accompanied by large increases of mean ages, there is reason to suspect larger quantum effects. This seems to be true in the case of Russia, for instance. The reverse relationship is seen for Hungary and the Czech Republic, which were the two countries with the smallest TFR decreases and at the same time the largest increases of mean age. They also had the lowest pre-transition TFRs. This indicates that their TFR decreases to a large extent were caused by tempo effects.

#### 4.1.4 Adjusted Total Fertility Rates

A Bongaarts-Feeney type of ATFR, calculated by Tomas Sobotka for the period 1990-2000, further supports the idea of tempo effects behind the TFR falls. The adjusted fertility rates, shown in Table 1, are higher than the non-adjusted ones for all countries. However, these adjusted rates are still lower than the earlier presented pre-transition TFRs, which suggest the prevalence of a real quantum effect as well.

For Bulgaria, Romania, Russia and Lithuania, the difference between the TFR and the ATFR is the smallest, suggesting that the fall in TFR in these countries to a larger extent was caused by quantum effects. Bulgaria, Romania and Russia also showed the lowest fertility levels according to these adjusted figures.<sup>3</sup> The Czech Republic shows the largest difference between the TFR and the ATFR, indicating that tempo effects were especially strong.

**Table 1: Total Fertility Rates and Adjusted Total Fertility Rates in the Transition Countries**

Country	Year	TFR	Adjusted TFR	Difference	Country	Year	TFR	Adjusted TFR	Difference
<b>Bulgaria</b>	1990-1993	1.62	...		<b>Lithuania</b>	1990-1993	1.90	1.80	-0.10
	1994-1996	1.27	1.54	0.27		1994-1996	1.48	1.63	0.15
	1998-2000	1.21	1.47	0.26		1998-2000	1.33		
				1998-1999			1.63		
<b>Czech Republic</b>	1990-1993	1.78	1.94	0.16	<b>Poland</b>	1990-1993	1.97		
	1994-1996	1.30	1.94	0.64		1991-1993		2.13	
	1998-2000	1.15	1.67	0.52		1994-1996	1.67	2.02	0.35
				1998-2000		1.38	1.69	0.31	
<b>Estonia</b>	1990-1993	1.75	...		<b>Romania</b>	1990-1993	1.59	1.62	0.03
	1994-1996	1.33	...			1994-1996	1.34	1.59	0.25
	1998-2000	1.33	1.67	0.34		1998-2000	1.31		
				1998-1999			1.50		
<b>Hungary</b>	1990-1993	1.80	1.98	0.18	<b>Russia</b>	1990-1993	1.63		
	1994-1996	1.56	1.86	0.30		1991-1993		1.44	
	1998-2000	1.31	1.71	0.40		1994-1995		1.47	
				1994-1996		1.33			
				1998-2000		1.21	...		
<b>Latvia</b>	1990-1993	1.78	...		<b>Slovakia</b>	1990-1993	1.99	2.09	0.10
	1994-1996	1.27	...			1994-1996	1.55	1.85	0.30
	1998-2000	1.17	1.61	0.44		1998-2000	1.33	1.72	0.39

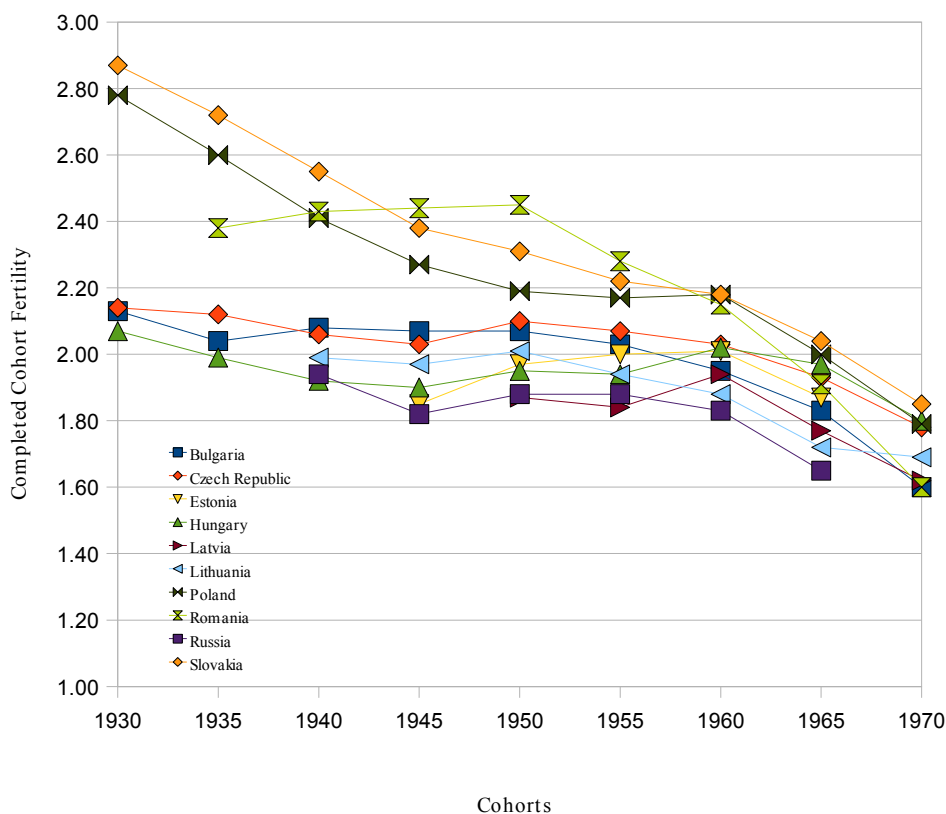
Source: Sobotka 2003, p. 474

<sup>3</sup> Frejka and Sobotka however point out that figures from the former Soviet Union, including Russia, are less reliable, since they do not provide order-specific fertility data (Frejka & Sobotka 2008, p. 24).

### 4.1.5 Completed Cohort Fertility

Even if CCF is a better measure than the TFR, since it shows true quantum effects, interpretations of the figures given below still have to be made with caution. This is due to the rather long time lag and the fact that the cohorts of women that could possibly have been affected by the transition, have actually not yet reached the end of their childbearing years. Moreover, since the figures used here are from 2003, the measurement is even further limited by time. Statistics showing the spacing of births would be more informative, because of their possibility to reveal whether postponements of first births seem to have been caught up later by less spacing between additional births. Access to such figures for all countries is more limited and the final outcome of them would still be affected by the time lag, which is why the simple CCF measurement will still be used in this analysis. However, the reader should bear in mind, that the figures and interpretations are not final.

**Diagram 3: Completed Cohort Fertility in the Transition Countries**



Source: Council of Europe 2004, p. 88

Diagram 3 shows that the CCF for most countries was quite stable until the 1965 cohort, when a small decrease started and grew larger for the 1970 cohort. The decreasing trend seems to be overall, with no single country deviating from the general pattern. Cohorts born in 1940, 1945, 1950 and 1955 had more or less reached the end of their childbearing years in 2003 and the figures for these

cohorts are therefore definite. Cohorts born in 1940 and 1945 were around 49 and 44 years old respectively in 1989, and can therefore be considered free from influence of the transition. The 1950 and 1955 cohorts were around 39 and 34 years old respectively in 1989. Considering the early childbearing pattern, a large part of the women belonging to these cohorts were most probably not affected by the transition in their childbearing decisions.

The 1960, 1965 and 1970 cohorts were around 29, 24 and 19 years old respectively in 1989 and only 43, 38 and 33 in 2003. Once again, considering the early childbearing, it is possible that the 1960 cohort had almost completed its childbearing by 1989—which may be a possible reason why there are not really any signs of fertility decreases—that the 1965 cohort would be in the middle of the childbearing years, and that the 1970 cohort would be in the beginning of them. Frejka and Sobotka argue that due to the early childbearing pattern in the transition countries, even the 1965 cohort had completed the main part of their childbearing years by the end of the 1980s—before the actual start of the transition (Frejka & Sobotka 2008, p. 29). If one relies on this interpretation as well as sources claiming that short spacing between births was a typical pattern before the transition (Sobotka 2003, p. 453), the fertility decrease that can be spotted for the 1965 cohort, should not be interpreted as negative effects of the transition.

Another possible interpretation is that the decrease indeed is due to the transition. This is perhaps more likely, considering that the general fertility decrease seems to have started with the cohort that was in the middle of its childbearing years as the transition started. The decrease for the 1970 cohort should probably be interpreted as a transition effect due to the same reason. For the 1965 as well as for the 1970 cohort, there is still possibility to catch up a little, since they will have reached the end of their childbearing years only in 2014 and 2019.

#### ***4.2 Short term Transitional Effects on Fertility***

Certain parts of the theoretical reasoning match the empirical short term approach especially well. According to the discussion in chapter 3, fertility falls were an expected consequence of the macroeconomic changes, which followed the start of the transition. This was due to their resemblance to a severe business cycle and to the fact that they would lead to a more restricted budget constraint. It was also argued that stress and uncertainty caused by the transition, could lead to postponements as well as decisions to have fewer or no children.

The statistics presented in subsection 4.1 support this reasoning and show clear signs of transitional fertility effects already on a short term. Falling TFRs and postponements of childbearing, illustrated by increased mean ages of mothers giving birth to their first child, were visible immediately after the start of the transition. The stable fertility and mean age levels prior to this further indicate that the changes were caused or at least triggered by the transition. Despite the time lag, also CCF statistics hinted short term fertility effects. There were signs of decreasing fertility rates for the cohorts who were in the midst of their childbearing years, or just about to start them, when the transition began.

Adjusted fertility rates showed larger quantum effects—actual fertility falls—in Russia, Bulgaria and Romania, while falling fertility rates in for example the Czech Republic to a larger extent seem to have been caused by the postponement of births. One might suspect that larger effects on fertility in the former three countries are related to the fact that they were hit harder economically by the transition and recovered more slowly, as stated in chapter 2.

Although many of the transition countries to various extents seem to have recovered from the most severe macroeconomic downturn by now, there is still a long way to go before these countries can be considered fully functioning market economies. There were signs of TFRs starting to stabilize in the medium run and therefore, more attention will be paid to this time perspective in the next subsection. In order to determine what may influence fertility in a medium term and whether fertility trends in the transition countries are similar to those of other European market economies, it will be necessary to take a look at the fertility patterns and their determinants in the rest of Europe.

### ***4.3 Medium Term Transitional Effects on Fertility***

#### **4.3.1 The Second Demographic Transition and European Trends**

Around 1960, the rest of Europe had TFRs above the replacement level and in most cases, fertility was higher than in the transition countries. In the countries for which there are available figures, the mean age of women giving birth to their first child was at this time about the same or even slightly higher than the mean age of women in the transition countries in the early 21<sup>st</sup> century—between 23 and 26 years old (Council of Europe 2004, p. 81). In the 1960s and early 1970s, a trend of fertility decline and postponements of births started in Northern and Western Europe and later spread to Southern Europe. These fertility changes took place parallel to major changes of norms and attitudes towards family life and children, and to the so called contraceptive revolution—the increased availability of modern methods of birth control. This development has, by researchers



Van de Kaa and Lesthaeghe, been labelled the Second Demographic Transition (Frejka, Sobotka et. al. 2008, p. 9). Thus, the rest of Europe also experienced quite large fertility changes, characterized by decreasing TFRs and a childbearing postponement, during the 20<sup>th</sup> century. The main difference is that the major TFR decrease in the rest of Europe took place earlier than in the transition countries and that, in most cases, the TFR decrease was a little less dramatic. However, figures from the Council of Europe show that there is a number of countries where fertility declined just as rapidly as in the transition countries, with about one child in ten years (Council of Europe 2004, p. 76).<sup>4</sup> TFRs in most cases stabilized in the mid 1980s or early 1990s and have since then been more or less stable, while mean ages are continuing to increase. In several of the countries for which there are available figures, fertility postponements seem to have started at a faster pace only from the early or mid 1980s—not very long before a similar trend started in the transition countries (Council of Europe 2004, p. 81). Figures from the WHO show that fertility was below the replacement level in all European countries in 2006 (WHO 2009). The mean age of women at the time of birth of their first child in the non-transition European countries is now around 28-29 years, with the highest mean ages (29.3 years) of first-time mothers in Spain and Switzerland (Frejka & Sobotka 2008, p. 20). WHO statistics further show that Italy and Spain were the first non-transition European countries to reach lowest-low fertility levels in the early 1990s—before the transition countries did.

### **4.3.2 Regional Fertility Patterns in Europe**

Billari has pointed out that despite the fact that the European countries in a larger perspective show relatively homogeneous economic performance, there are quite large fertility variations within the group. According to him and several other researchers, these variations seem to be persistent (Billari 2005, p. 70) (Frejka & Sobotka 2008, p. 12), and Frejka and Sobotka point out that this is the case also after tempo effects are taken into consideration (Frejka & Sobotka 2008, p. 24). Looking further into this phenomenon is worthwhile when studying fertility in a medium term. Frejka and Sobotka divide the European countries into four regions, according to patterns of fertility trends, visible since the start of the 1990s: a northern European, a western European, a southern European and a German-speaking region.<sup>5</sup> According to the two researchers, the western and northern groups are distinguished by higher (relatively close to replacement fertility levels) while the southern and German-speaking groups are distinguished by lower fertility. The postponement of childbearing is present in all regions (Frejka & Sobotka 2008, p. 17ff.).

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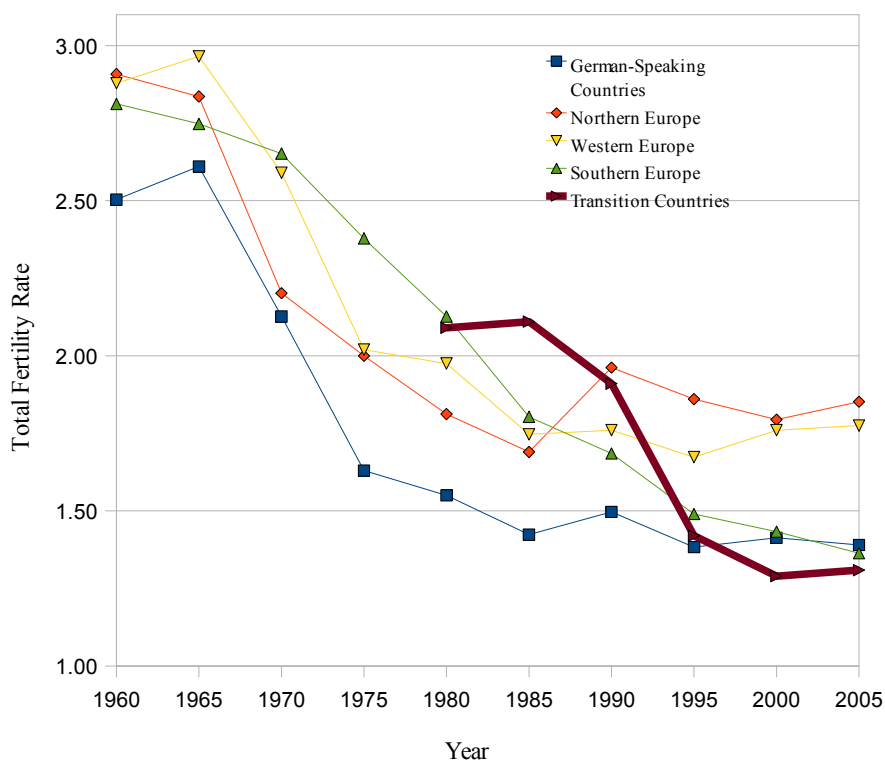
4 This was the case for, for instance, Austria, Belgium, Germany (FRG before the German unification), Greece and the United Kingdom.

5 Northern Europe: Denmark, Finland, Iceland, Norway and Sweden. Western Europe: Belgium, France, Ireland, Luxembourg, the Netherlands and the UK. German-speaking countries: Austria, Germany and Switzerland. Southern Europe: Cyprus, Greece, Italy, Malta, Portugal and Spain.

Divisions of Europe into groups according to fertility patterns, similar to Frejka's and Sobotka's, have been suggested in a large number of papers and articles. Sometimes the northern and western groups are combined into one (Sánchez-Barricarte & Fernández-Carro 2007, p. 153 ff.), sometimes the division is between a Mediterranean, a Scandinavian and a liberal welfare state group (Aassve et. al. 2005, p. 284) and in some cases, Europe is split into only a northern and a southern group (Chesnais 1996, p. 729).

The average fertility trends for the four European groups<sup>6</sup> since 1960 as well as for the transition countries since 1980, are shown in Diagram 4. Judging by the diagram, perhaps a division of non-transitional Europe into two distinct groups—a northwestern and a southeastern—is more accurate. This will be discussed in more detail below. In 2005 the average fertility in the southern and German-speaking groups was about 1.4, in the western European group close to 1.8 and in the northern European group slightly higher, around 1.85. According to the diagram, the common fertility pattern of the group of transition countries reminded more of, and had so far during the 21<sup>st</sup> century been closer to the patterns of the southern and German-speaking groups. Also the TFR trends in the rest of Europe should be treated with caution, due to possible tempo effects. As discussed above, mean ages of women at the birth of the first child have increased rapidly also in the rest of Europe.

**Diagram 4: Average Total Fertility Rates for Europe and the Transition Countries**



Source: Council of Europe 2004, p. 76 (figures from 1960 to 2000) and WHO 2009 (figures starting from 2001). Average figures based on author's own calculations.

6 According to the division suggested by Frejka and Sobotka.

### 4.3.3 Suggested Reasons Behind Fertility Differences

The suggested reasons behind the differences in fertility patterns are at least as many as the proposed patterns themselves; including social, religious and ethnic differences between the countries, as well as variations in family patterns, labour market regulations, gender equality and different kinds of welfare state regimes and their policies towards families (Frejka & Sobotka 2008, p. 19). Despite their own division of Europe into fertility patterns, Frejka and Sobotka still point out that drawing conclusions about underlying cultural differences leading to the grouping of Europe into regional fertility patterns, is a little risky, since this is done on the basis of TFRs and not on CCF (Frejka & Sobotka 2008, p. 19). As emphasized by Billari, there is probably not one single reason, but several interrelated ones (Billari 2006, p. 65). However, many researchers do seem to agree on a few factors that are certain to be important for fertility. Frequently, gender equality and the role and situation of women are mentioned and underlined as having a large influence on fertility. Chesnais, for example, states that in the developed world, fertility is at a level that is “socially desired” where the status of the woman is higher and where state policies support this status (Chesnais 1996, p. 738). Hilgeman and Butts present the argument that in countries where women and men have equal educational and professional opportunities, but where women due to children are hindered from realizing their opportunities, fertility will be lower (Hilgeman & Butts 2009, p. 105). Another common view is that where the state provides fewer family services—thus not enabling a combination of mother-/parenthood and labour market work—fertility is lower (see for example Hilgeman & Butts 2009, p. 107). Examples of such services are child care, parental leave and flexible labour market regulations, for example enabling part-time work. As stated by Billari, “The adoption – or the discontinuation – of new family policies, e.g. maternity benefits, parental-leave entitlement, the provision of childcare services and child benefits, as well as policies on housing subsidies or even regulations concerning downpayments for mortgages are clearly important determinants of family formation” (Billari 2005, p. 66). Like Billari, a few other researchers mention available housing to be an important factor influencing fertility (Sánchez-Barricarte & Fernández-Carro 2007, p.146) (Hilgeman & Butts 2009, p. 107).

Both factors—the status or role of women and the policies enabling work and family—are used in discussions related to certain countries or groups of countries. Several researchers link the high fertility in countries belonging to the northern European group to the high levels of gender equality on an overall societal level, a well developed family policy with extensive provision of childcare and parental leave (where benefits cover a large part of earnings prior to the leave [Neyer 2006, p. 9]) and flexible employment opportunities (Hilgeman & Butts 2009, p. 107) (Chesnais 1996, p. 732f.). The low fertility rates in southern Europe are commonly explained by family policies based

on more traditional views on the family, with men seen as breadwinners and women as caretakers. Accordingly, family policies do not include benefits for families with children, and childcare is provided mainly in the market at a high price (Hilgeman & Butts 2009, p. 107) (Chesnais 1996, p. 729ff.). A similar situation, with the family, and not the individual, seen as the societal basic unit, and the woman as a caretaker—leading to a lack of childcare—is often mentioned in the discussions about Germany. The situation that occurred after the German unification in 1991, when fertility dropped as childcare services disappeared in Eastern Germany, is sometimes mentioned as an illustrating example (Chesnais 1996, p. 736f) (Hilgeman & Butts 2009, p. 107).

As far as the western European group and the interaction between policy and fertility is concerned, much fewer sources can be found. In UK, childcare is not provided by the state, but available on the market and cheaper than in most other parts of Europe (Hilgeman & Butts 2009, p. 107). According to Gerda Neyer, childcare is extensive in for example France and Belgium, although the system differs from the Scandinavian one, since there are several private options to public childcare and various forms of tax deductions and government subsidies when using private care (Neyer 2006, p. 11). Even if Gerda Neyer herself somewhat challenges the general view on the relationship between family policies and fertility (Neyer 2006, p. 3), her description of the western European group can still be used in this discussion. If making the same assumptions as for the northern European group, it is possible to expect that for example the availability of affordable childcare in the western European group positively influences fertility there, too.

A look at female labour force participation rates in the different groups of countries somewhat support the earlier notion of the positive relationship between high fertility and high female labour force participation. OECD statistics from 2004 show that in general, labour force participation rates for women in Europe were highest in the Nordic countries, while Southern European countries had the lowest rates. Participation rates in the transition countries which were included in the OECD survey were spread out along the scale, while participation rates in German-speaking countries and western Europe were in between the Scandinavian and Southern European rates (OECD 2004, p. 2).

In sum, although discussions about the German-speaking and western European groups are less detailed, it does seem possible to distinguish two major European fertility patterns, persistent in the medium term. The main factors behind the patterns appear to be family policies, the possibility of combining motherhood and market work and to some extent also attitudes towards family life (even though also other reasons, such as housing, are frequently mentioned). Higher fertility is prevalent

in the northern and western European groups, where the childcare provision is extensive and affordable. It is interesting to note that childcare is provided in different forms—mainly by the state or to a larger extent by the market—but still give the same result. The southern European and German-speaking groups, where fertility is lower, are distinguished by low access to, or expensive market-provided, childcare and a more traditional view on the family. It is reasonable to expect that in a medium and probably also longer term, fertility in the transition countries will be influenced by the choice of family policies, which is why changing structures and the development of such policies will be discussed in the next subsection.

#### **4.3.4 State Policies in the Transition Countries**

Even if a large number of studies are concentrated on the reasons behind the drastic fertility decline that took off at the start of the transition, considerably fewer studies have been devoted to the future and the development of family policies in the transition countries. Moreover, as illustrated by the discussion about fertility in the other European countries, national policies in this area are difficult to measure and compare.

Several researchers claim that before the transition, the general fertility pattern in the communist countries was quite homogeneous, with almost universal childbearing at low ages, two children being the norm and little time between births (Frejka et. al. 2008, p. 8) (Sobotka 2003, p. 453). This pattern was, according to Frejka et. al., supported by pro-natalist policies, the fact that an authoritarian political system created few alternative ways of self-realization, except within the family, and relatively small economic risks, due to the planned economy (Frejka et. al. 2008, p. 8). The design of pro-natalist policies varied between the countries, but could include abortion legislation, limited access to contraceptions, financial allowances and extensive child care provision (Bradatan & Firebaugh 2007, p. 183f.). Cerami argues that family support, provided during communism, differed from that in other parts of Europe in the sense that it did not aim at promoting women as housewives, or simply mothers and wives, but also as workers (Cerami 2005, p. 134). Having a family and children was the easiest way of getting an apartment, due to the way the housing distribution system was organized, according to Akin and Vlad (Akin & Vlad 2007, p. 964).

Some of the structural changes caused by the transition were mentioned already in chapter 2. These include a rapid decrease in female labour force participation (Neyer 2006, p. 4) and changing attitudes towards the role of women. As discussed in the previous subsection, the prevailing circumstances after these changes remind of those, which are often related to low fertility.

As far as policies are concerned, Neyer argues that most family policy measures in the transition countries—although sometimes slightly changed—were kept during the first years of transition and that some new family benefits were introduced. Later, policies changed along with other political and economic changes as the transition proceeded (Neyer 2003, p. 5). According to a UNICEF report on women in transition countries, public childcare became less available and more expensive at the same time as taking care of children at home was being promoted. Maternity entitlements did stay intact and in some countries these entitlements and parental leaves were even extended. Fewer children seem to attend the nurseries, which provide care for children under the age of two, and the UNICEF report further claims that this kind of nurseries have totally disappeared in the Czech Republic and Slovakia. Enrolments in childcare facilities for older children were less negatively affected (UNICEF 1999, p. 12).

Neyer argues that the countries in Eastern Europe have adopted policies that encourage private care, provided by mothers themselves. This is enabled for example by the possibility to take long leaves from work. (There are, however, signs of employers being unwilling to let parents use these benefits [UNICEF 1999, p. 12]). Most commonly, benefits provided for the care of children at home are of a flat-rate type and quite small, although in a few of the countries they are based on previous income or the income of the spouse (Neyer 2006, p. 9f.). In line with the UNICEF report, also Neyer mentions the decreased provision of public childcare, a trend she claims started in Latvia, Slovakia and the Czech Republic soon after the transition. Here, decreases were drastic, but in other transition countries, the decrease has been smaller. It is further argued that the childcare services to an increasing extent are becoming de-centralized, privatized and market-oriented—something Neyer means is common also in the group of countries referred to as the western European in this thesis. A change of childcare in this way does not necessarily mean that fertility effects will be negative, given that the services are affordable. Neyer concludes that in comparison with the rest of Europe, “the Eastern European countries now offer medium to low childcare coverage”. On the whole, the fact that parental leave is becoming more common all over Europe, shows an understanding of the the difficulty in combining childcare and employment, according to Neyer. She further argues that most countries try to solve this impossible equation by enabling mothers to care, rather than to work, and that this is the case especially in Eastern Europe, where “the reinstitutionalization of gender-segregated employment and care-patterns was regarded as a means of reducing unemployment” (Neyer 2006, p. 11f.).

Cerami claims that there are some general features of Eastern and Central Europe today (Cerami 2005, p. 133). He underlines that “the economic performance of countries in transition is usually a

good indicator of the efficiency in this [family benefit] sector”. This reasoning is exemplified with Romania and Bulgaria where, according to him, the economic crisis due to the transition has had a negative effect on benefits, while countries such as Hungary provide more extensive and efficient benefits. Social benefits were cut down due to the large economic problems caused by the transition and this is, according to Cerami, why family support may seem comparatively very small in Eastern Europe (Cerami 2005, p. 140). With the start of the transition, the family was starting to be seen as the “main social safety net” (Cerami 2005, p. 142). Still, Cerami argues that all Central and Eastern European countries do have well-developed, to a large extent state-financed, family benefits. These benefits mainly provide birth grants, to ease expenses in relation to births, parental leave, enabling mothers or parents to stay away from work, and benefits paid monthly to families with children (Cerami 2005, p. 136).

#### **4.3.5 Medium Term Transitional Effects on Fertility: Conclusion**

The fertility data showed that in the medium term, fertility falls (measured by TFRs) were stabilizing, which further indicates that the drastic fertility effects, visible in the short term, may indeed have been related to the macroeconomic shock and instability. CCF data did not show signs of the decreasing trend to stabilize, but on the other hand, the 1970 cohort had around 15 years left of its childbearing years in 2003, when the figures were from. As explained both in chapter 2 and in the previous subsection, the transition led not only to immediate turmoil, but also to the start of complete changes of the economic and political systems and their supporting institutions, as well as to changes of values, norms and attitudes. Neyer, for instance, argued that family policies in the transition countries started to change only after some years. The effects of these slower structural changes are most probably becoming more visible in a medium term.

Also the medium term approach can find support in the theoretical discussion. As argued in chapter 3, changed societal structures, attitudes and demands could, when applying Becker’s theoretical reasoning, be expected to affect the demand for children negatively. If higher quality would be demanded for both parents and their children—one of the possible effects of increasing returns to education and the adaptation to new economic circumstances—the demand for quantity would decrease, due to the quality-quantity interaction. More emphasis on education could also possibly lead to further postponements of childbearing. Moreover, increased relative prices of children, due to the loss of government transfers which had been common earlier in the forms of free child care and free education, would be expected to affect the demand for children negatively.

In the subsection about fertility patterns in the rest of Europe, it was shown that the choice of family policies in each country was one of the main factors influencing fertility in a medium run. Especially the policies affecting the ability to combine parenthood and work, such as the provision of child care, seemed to play a major role. Even if for instance Sobotka claims that reproductive behaviour, as well as social and economic conditions, differ between the transition countries (Sobotka 2003, p. 477), judging by the sources used in this thesis, there appears to be some kind of general development of policies. This medium term tendency is a shift of responsibility from the state to the family and market as well as an abolishment of earlier pro-natalist policies—mainly the provision of free childcare— which were reducing the relative cost of children and which are often regarded as the main factor behind the high fertility in the northern and western European groups. New attitudes towards women and their work, the decreased female labour force participation and encouragement of care-taking instead of working are also examples of influential changes of structures and values. The new attitudes and adaption of new policies point towards a system more similar to that related to the lower fertility of the southern European and German-speaking groups. This development was hinted in diagram 4, which showed the common fertility pattern of the transition countries stabilizing on a level similar to that of the southern European and German-speaking groups in the medium run.

#### ***4.4 Long Term Transitional Effects on Fertility***

It is difficult to determine a distinct boundary between the medium term and long term perspectives. Even if structural changes are slow and this process will continue also in the longer term, it is quite possible to expect policies and norms to develop further in the direction they seem to have been taking so far. This reasoning gives cause to believe that fertility will stay on a fairly low level also on a longer term.

Something which could possibly alter this course is the fact that all the transition countries discussed here, except Russia, are now members of the EU. As mentioned by Teplova, reforms of family and gender policies in many of the transition countries have a connection with the accession to the EU (Teplova 2007, p. 284 f.). Thus long term fertility is, at least to some extent, likely to be affected also by common European policies, which probably take a longer time to implement than national policies. At the moment, the demographic question is being addressed in the EU. In for example a Green Paper on demographic changes, low fertility is said to be caused by “obstacles to private choices”, including expensive housing, job instability and few incentives, such as parental leave, equal pay and access to child care. The European Commission states that public policies



enabling work and family life are needed to raise fertility (European Commission 2005, p. 2ff.). The Lisbon Agenda includes new measures, which are supposed to have a positive effect on fertility, such as making social protection systems more modern and increasing the female labour force participation (European Commission 2005, p. 10). Although different patterns exist in the EU today, it is possible that these patterns will change in the long run, as the EU has started to pay more attention to the fact that policies regarding family, parenting and the labour market have a large influence on fertility.

#### **4.5 Suggested Reasons for the Transition-Related Fertility Falls**

Several possible explanations of the fertility fall that occurred in connection with the transition have been discussed in the literature. Despite various ways of labelling them, it is possible to distinguish two main approaches: an economic and an ideational one.<sup>7</sup> The first refers to the economic shock at the start of the transition, leading to problems such as unemployment, income falls and impoverishment. The ideational approach refers to the spreading and adaptation of so called western values and norms, including increased self-autonomy and individualization as well as features of the second demographic transition—a change that became possible when the authoritarian communist regimes were no longer in the way (Frejka et. al. 2008, p. 9f.) (Kohler & Kohler 2002, p. 234f.) (Philipov & Dorbritz 2003, p. 18f.). The economic explanation matches the short term discussion, since it emphasizes the early shock effects. The ideational approach is more in line with the investigation of medium and long term effects, since it focuses on the influence of the slower, structural changes caused by the transition.

Many researchers—among them, Philipov and Dorbritz—stress that these two factors alone can not explain the fertility decline in the transition countries (Philipov & Dorbritz 2003, p. 19) and there are of course other suggested reasons. Bradatan and Firebaugh claim that the fertility decline starting in the 1990s was rather the continuation of a second demographic transition which had begun already in the 1960s also in the transition countries. They use Romania as an example, showing how the fertility decline was held back for 20-30 years with the help of pro-natalist policies (Bradatan & Firebaugh 2007, p. 180). This possible explanation is discussed also by Kohler and Kohler (Kohler & Kohler 2002, p. 236). It is quite possible that a combination of several factors, including the above presented, are behind the transition-related fertility changes.

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<sup>7</sup> An in-dept analysis of these explanations would be too time-consuming and demands data that is not available. Therefore, these prevailing explanations are simply introduced here for the reader to be aware of their existence.

## 5. Conclusions

The aim of this thesis was to examine the theoretical and empirical connection between transition and fertility. This was done first by looking into economic theory and determine whether there are reasons to expect transition to cause fertility changes. A discussion of Gary Becker's New Home Economics and some complementing sources, used as the theoretical framework of this thesis, showed that fertility declines indeed would be a likely outcome of the transition. This was argued to be mainly due to increasing costs of children because of lost government transfers, fewer women engaged in market work, tighter budget constraints due to difficult economic circumstances and increased importance of quality of parents and children.

Next, fertility data and other sources from the literature were used in order to study fertility changes which have actually occurred in the short and medium run and discuss what developments could be expected further in the medium as well as the long run. Statistics showed how sharp fertility falls and delayed childbearing appeared immediately after the start of the transition, suggesting that this development was caused or triggered by the transition—and that they possibly had something to do with the macroeconomic shock effects. A look into fertility trends in the rest of Europe gave reason to believe that attitudes towards women and labour as well as state policies affecting the possibilities of combining parenthood and work, were two of the main factors behind fertility development in a medium run. It was argued that the transition countries in a medium run seemed to be reinforcing policies, which in other parts of Europe appeared to have caused low fertility. Moreover, there were some policies, considered to influence fertility positively and present during the communist regimes, that had been abolished. Judging by this, fertility can be expected to remain on a low level in the transition countries also in the long run, if policies continue to change in the chosen direction. A factor which could possibly influence fertility and change the long term trends, however, are joint EU policies. Concerns about low fertility levels in Europe has led to EU discussions about suitable measures in order to raise fertility.

The third main issue examined in the thesis was whether fertility in the transition countries showed similarities to fertility patterns in other European countries. It was concluded that two main fertility patterns, most likely caused by different kinds of family policies and norms, were in existence in Europe. One was prevalent in Northern and Western Europe, where fertility was closer to replacement levels. The other was seen in German-speaking and southern parts of Europe, where fertility was lower. Despite the fact that developments were not exactly homogeneous in the transition countries, their average fertility pattern was most similar to the one in German-speaking and Southern Europe, both when figures and policies were taken into consideration.

As discussed and pointed out throughout this thesis, a transition is a very long and complex process, and the outcomes and trends presented here are not final or definite. Exact fertility figures can be given only with a long time lag, and norms and policies will continue to change. Further developments are therefore a suitable topic for future research.

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