

EFFECTS OF DIFFERENT MEASURES OF FAMILY POLICY ON FERTILITY

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SUMMARY

The study aims to assess effects of different measures of family policy on fertility. To do so it first, in the theoretical section of the study, builds on existing theoretical and empirical literature to derive hypotheses about effectiveness of different family policy measures. Then, in the empirical section of the study, these hypotheses are tested on a sample of 37 developed countries using binary logistic and linear regressions. All of these hypotheses have been confirmed:

Hypothesis 1: Leaves will have either no, or negative effect on fertility.

Hypothesis 2: Tax breaks will have only limited effect on fertility.

Hypothesis 3: Formal care for children under 3 years of age will have positive impact on fertility.

Hypothesis 4: Flexible workplace arrangements and practices will have positive impact on fertility.

Hypothesis 5: If we construct a “work-life balance index” combining child care for under threes with flexible workplace arrangements, it will have greater positive effect on fertility than the individual measures.

Hypothesis 6: Provision of care for children older than 3 years will not have positive effect on fertility.

Therefore the question, what are the impacts on fertility of different measures of family policy, was answered in the following way: while leaves, taxes and care for children from 3 to 5 do not have positive effect on fertility, measures which facilitate work-life balance such as care for under threes and initiatives which increase the flexibility of work arrangements may help to increase fertility.

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INTRODUCTION

To sustain decent level of fertility is one of the most urgent challenges for a number of developed nations. Endangered low-fertility countries need not strive to achieve very high fertility levels of the past when having three and more children was the norm. “When fertility is moderately below replacement level, the size of subsequent generations falls only slowly and, if considered necessary, there is an opportunity to supplement the generation size with migration.” (McDonald 2006: 485). However, „where fertility is below about 1.6, the levels of migration required for replacement of the population become impossibly large.“ (McDonald 2002: 2). Total fertility rate of 1.3 sustained for a century results in very dramatic decline in population size – at century’s end the population shrinks to only a quarter the original size (ibid).

Leaving behind the long term threat of virtual disappearance faced by some nations, low fertility has also different more immediate negative effects. “It leads to serious future labor shortages, especially a shortage of young skilled workers ... over the next 50 years, Japan's labor supply would fall by 22 million and Italy's and Germany's each by 11 million if their fertility levels and labor force participation rates of the late 1990s were to continue unchanged.” (McDonald 2006: 486) And it is especially these young skilled workers who are becoming increasingly important for contemporary knowledge-based high-tech economies. Retraining of older workers tends to be a relatively ineffective means of substituting for lack of younger workers in the high-technology sectors (Skirbekk 2003).

When very low, as it is in many European countries, fertility represents according to some social policy scholars even more serious threat to fiscal sustainability of contemporary welfare states than related problem of population ageing (Esping-Andersen 1996: 78; Castles 2002: 269). While “for countries with fertility rates only moderately below replacement level, migration and increased labour force participation are possible solutions to the social expenditure demands of an ageing population.” (Castles 2003: 210)

Furthermore, there is also evidence that very low fertility is counter to the preferences of individuals experiencing it (van Peer 2002; d'Addio and d'Ercole 2005). Sleenbos (2003: 4) in his comprehensive review about low fertility rates in OECD countries concluded that a persistent gap exists in many OECD countries „between realized and desired fertility, with the latter tending to remain clustered around the “two-child” norm.“

It is evident that promoting fertility is very significant task. But what strategies should governments pursue when trying to do so? Which measures should they adopt? The purpose of this study is to shed some light on the question: what are the impacts on fertility of different measures of family policy?

In order to do so it will first in the theoretical section of the study build on existing theoretical and empirical literature to derive hypotheses about effectiveness of different family policy measures. And these will later be tested on a sample of 37 developed countries in the empirical section of the study.

1. THEORETICAL SECTION

When examining the effect of family policy on fertility it is in the first place necessary to put the family policy in the context of other factors which influence fertility. Among them culture, traditional values, emphasis on the family etc. used to figure most prominently as predictors of fertility rate. This is, however, no longer the case. As for example Castles (2003) persuasively demonstrated in his article *“The world turned upside down”* it is precisely the countries where emphasis on the family is the greatest and traditional values persist to the greatest extent, where the fertility rates are the lowest. A look at the findings in WORLD VALUES SURVEY 1981-2008 OFFICIAL AGGREGATE v.20090901 (2009) reveals the same pattern. Contrary to popular wisdom, among the developed countries, it is precisely those countries where emphasis on traditional values is the greatest and emphasis on Self-expression values is the lowest, which are characterized by the lowest levels of fertility. Therefore, if cross-national differences in value orientations do not seem to explain cross-national differences in

fertility rates among developed countries, we should attempt to explore what else, if differences in family policy, explain the variance in fertility rate.

We will begin our discussion of the impacts of different measures of family policy on fertility with family cash-benefits – the leaves, followed by tax breaks and “work-life balance” measures.

1.1 THE LEAVES

Although some researchers have proved some positive effect of family leaves on fertility (for a review see c.f. McDonald 2006, Sleebos 2003), in most cases they have been found to have either no effect or even negative effect on fertility. According to Castles’s (2003) empirical study they do not have any effect at all. Sleebos (2003: 5) summarizes his review of a number of studies by saying that “impacts of family-friendly policies are more contradictory, with several studies suggesting ... weaker or mixed effects from maternity and parental leave.” Adkins (2003), conducting a multi-level analysis of 18 European countries, found, that payments such as maternity leaves that are contingent on the mother remaining out of the labor market represent a poor approach to fertility promotion because they act as disincentive for women when they wish to return to work after having a child. Leaves do not have much positive effect on fertility because, especially in contexts of high unemployment, they put women at risk of unemployment. As explained in a synthesis of findings from OECD countries (OECD 2007: 21)

From a narrow labour market perspective, the optimal period of leave seems to be around four to six months (measured in full-time equivalents), and employers report that leave for about four to five months after childbirth causes less disruption than longer leave periods. ... the use of longer leave periods by mothers can permanently damage their labour market position, leading to lower employment rates and lower earnings.

Equally, Neyer and Andersson (2008) explain the low fertility in German speaking countries by prevalence of long maternity leaves which render women as “risky” employees and complicate their return to the labour market. This problem will be discussed in more detail in the subsection on “work-life balance” measures. For the moment, we put forth our first hypothesis regarding effectiveness of different measures of family policy:

Hypothesis 1: Leaves will have either no, or negative effect on fertility.

1.2 TAX BREAKS

Another type of family policy measure which aims to help families financially are different types of tax breaks. Unfortunately, there has not been very much research on the effects of tax breaks on fertility. Building on the arguments mentioned above we will hypothesize, that the impact of tax breaks on fertility will not be very large as they increase the family income only to limited degree (unlike work-life balance measures which, by helping the woman to work, increase it to greater extent). Neither the tax breaks help to reduce the risk of unemployment of women who embark on childbearing. Therefore we put forth following second hypothesis:

Hypothesis 2: Tax breaks will have only limited effect on fertility.

1.3 WORK-LIFE BALANCE MEASURES

Another huge set of measures with possible effect on fertility can be grouped under the heading of “work-life balance” measures. The basic logic behind the argument that different measures which help to balance work and family life should promote fertility is following: “the contraceptive revolution gave women independent control of their fertility, if necessary without the agreement or cooperation of male partners, for the first time in history.” (Hakim 2003: 368) From the fact that it is women, who control fertility it follows that “it is their preferences and values that shape family responses to public policy” (ibid.: 369). And at the moment, thanks to the equal opportunities revolution which has hugely improved the rewards, terms, and conditions in the labor market for women, it is paid employment which is often the preferred activity for women. Therefore in countries, where it is difficult to combine paid employment with family life, women accordingly adapt their fertility patterns – have fewer children.

Moreover, what is maybe even more important is the already mentioned risk of unemployment. As explained by McDonald (2006: 492-4),

if they wish to maintain economic standing with their peers in an environment of rapidly rising aspirations, young men and women must devote themselves to the maximization of their own human capital. ...Investment in one's human capital (education and labor market experience) is

seen as the essential hedge against these risks, the optimal path of risk aversion. This investment involves considerable commitment to self and one's employer, especially through long work hours, in opposition to a commitment to more altruistic endeavors such as service to family members and family formation. ... While family formation remains the goal of most people, within the context of the opportunities and risks of the new capitalism it can be delayed to an extent that achieved fertility falls short of ideal preferences.

In countries, where it is difficult for women to work during the first three years since the birth of their child, because of lack of work-life balance measures such as affordable form of formal child-care for children under 3 years of age or flexible workplace arrangements, people “will delay their family formation until they feel they have reached a secure enough position to assume its costs [but] with very lengthy delays, the chance increases that the first birth does not occur at all.” (ibid.: 495) Or childbearing stops after the first child. According to existing research the “difference between countries with moderately low fertility and countries with very low fertility are the extent to which childbearing continues beyond the first birth when the first birth occurs at a late age.” (ibid.: 498)

According to Fagnani (2007: 73):

fertility acts as a variable of adjustment: couples make decisions about the number of children they will have based on the woman's professional plans and aspirations. If maternity threatens these plans because societal supports for combining work and family responsibilities are few or non-existent, women are likely to postpone childbirth and reduce the number of children they have.

The range of possible work-life balance measures is potentially immense. As Castles (2003: 220) notes: “anything from ... flexibility of work arrangements ... visa restrictions on overseas domestic servants to the free provision of child-care services – can modify the terms of the trade-off between work and maternity and, hence, potentially influence the aggregate fertility behaviour of a given country.”

As for the empirical evidence regarding the hypothesis that work-life balance measures increase fertility, there is ample evidence of the positive effect on fertility of formal children care for children under 3 years of age and of flexible working arrangements.

Castles discovered in his study of fertility patterns in 21 OECD countries strong positive relationship between provision of formal child-care for under threes and fertility as well as a positive relationship between presence of flexible workplace arrangements and fertility.¹ Del Boca and Sauer (2009) found that labour market participation and fertility in Italy and Spain could increase if labor market flexibility and child care availability increased in those countries. Finding confirmed by the research of Giraldo, Mazzuco, and Michielin (2005). Fagnani (2007: 73) in her comparative analysis of six European countries found that “where family-friendly public policy has had a positive impact on fertility levels, the common denominator has been the availability of affordable, high quality childcare, along with legal provisions regulating work leave and work schedules related to children.” Childcare has been shown to be important by, among others, Del Boca (2002), Del Boca and Pasqua (2005), D’Addio and Mira d’Ercole (2005), Kravdal (1996), Rindfuss, Morgan, and Offutt (1996), and Del Boca eds. (2007). Sleebos (2003: 5) found several studies to suggest “strong positive effects on fertility from higher child care availability.” While according to Rindfuss, Morgan, and Offutt (1996: 288) fertility in the United States has remained relatively high because childcare centers have become more widely available and acceptable.

Therefore we put forth our third hypothesis:

Hypothesis 3: Formal care for children under 3 years of age will have positive impact on fertility.²

However, as can be seen from the discussion above, childcare is not the only work-life balance measure. Especially family-friendly workplace measures are also very

¹ And these findings “are not an artifact of individual cases, are not proxies for the effects of convergence and are not dependent on the distinctiveness of the exceptionally low-fertility countries of Southern Europe.” (Castles 2003: 225)

² Although it is not subject of this study, it is important to note at this place that one of the possible reasons for rejection of formal care for under 3s – fear of its negative effect on the child, has not been confirmed by the research. Waldfogel (2006: 31) in a comprehensive review of studies on the effects of formal care on children concludes that: “There is little or no evidence of any adverse effects of parental employment after the first year of life.”

important for work-life balance and fertility.³ This is well illustrated by the case of Japan, Singapore and Korea, where fertility remains low despite both financial support to families and child-care because “government has failed to confront employers in the effort to achieve work places that are more cognizant of the needs of parents, especially mothers. Expected work hours remain in sharp conflict with family responsibilities. Women below age 30 in Singapore, for example, work an average of 52 hours per week.” (McDonald 2006: 205). Various workplace practices in those countries such as long hours and seniority-based remuneration systems punish workers who take time off to care for children (OECD 2007: 24). And, as already mentioned, the flexible working arrangements have been found to have positive impact on fertility by Castles (2003).

Therefore we put forth next hypothesis:

Hypothesis 4: Flexible workplace arrangements and practices will have positive impact on fertility.

But we can also expect that the combined effect of different work-life balance measures will be greater than the effect of individual measures. Therefore we put forth another hypothesis:

Hypothesis 5: If we construct a “work-life balance index” combining child care for under threes with flexible workplace arrangements, it will have positive effect on fertility greater than the individual measures.

1.4 CARE FOR CHILDREN OLDER THAN 3 YEARS

Finally, another important measure commonly considered to be a part of family policy is care for children older than 3 years of age. Castles (2003) have not found it to be important for fertility. Which he explains by the fact that for example “in countries like France, Belgium and Italy, high levels of child care for the over-3s have little to do with encouraging women’s employment [hence work-life balance and fertility; note by the

³ According to OECD (2007: 24) “the most common types of family-friendly work practices are part-time work, flexible workplace, granting days to care for sick children, and to a lesser extent employer-provided parental leave support. Teleworking, school-term working and employer-provided childcare support are generally less widespread.”

author], but instead reflect a belief in the benefits of early education.” (Castles 2003: 222)

Therefore we put forth the following last hypothesis:

Hypothesis 6: Provision of care for children older than 3 years will not have positive effect on fertility.

2. EMPIRICAL SECTION

As has been already mentioned, the hypothesis will be tested on a sample of 37 developed countries (they can be seen in Table 1 in Appendices).⁴ Fertility will be measured using measure of total fertility rate (TFR).⁵ The leaves will be measured using a variable which was computed by the author as sum of values of maternal, paternal and parental leaves published by the OECD in its Family Database and expressed as duration of the full-time equivalent of the leave period if paid at 100% of last earnings. Tax breaks will be measured as the share of all tax breaks towards families expressed as share of GDP, obtained again from OECD. Child-care for under 3s will be measured by enrollment in formal care for the under 3s recorded by OECD.⁶ The same goes for children older than 3 years. Two different variables are used to measure flexible workplace practices. The first is the proportion of women who work part time computed from the OECD

⁴ These are all OECD countries except of Mexico and Turkey, plus all EU countries and Croatia.

⁵ Total fertility rate is

The mean number of children that would be born alive to a woman during her lifetime if she were to pass through her childbearing years conforming to the fertility rates by age of a given year. This rate is therefore the completed fertility of a hypothetical generation, computed by adding the fertility rates by age for women in a given year (the number of women at each age is assumed to be the same). The total fertility rate is also used to indicate the replacement level fertility; in more highly developed countries, a rate of 2.1 is considered to be replacement level.

(<http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&plugin=0&language=en&pcode=tsdde220>)

⁶ “Data on the proportion of children covered by formal child-care arrangements include both public and private provision in child-care centres and in residential care homes. They also include care by childminders based in their own homes and by carers who are not family members but live with the family in question.” (Castles 2003: 223)

employment data. The second is variable which will be called “Flexible work arrangements” and was computed by the author from data from Fourth European Survey on Working Conditions, 2005 (published by OECD) as proportion of employees who do not have working time entirely set by the company, i.e. of employees who can either choose between several fixed working schedules, adapt working hours within certain limits or entirely set the working hours themselves. Work-life balance index was computed as a sum of the values of variables of child care for under threes and flexible work arrangements. The values of all of these variables for individual countries together with their average TFR for the period of twenty years from 1989 to 2008 can be seen in Table 1 in Appendices.

To assess the effects of these variables on TFR, two different statistical methods were used: binary logistic and linear regression. Binary logistic regression requires us to transform the TFR into dichotomous variable, divide the countries into two groups – low fertility group and high fertility group. This may seem as a disadvantage at the first sight, but it actually has several advantages. What we can do and what we have done, is to compute the average TFR for each country for the last 20 years, thereby eliminating the disadvantage of TFR of its fluctuation caused for example by economic shocks (as in Sweden in the 90s) or a baby booms (as in the Czech Republic now). And according to the average TFR place the country in high or low fertility group. The cutoff point to divide the group was set to TFR of 1.6, level below which migration cannot offset the negative effects of low fertility, as has been shown in the introduction.⁷ In addition, in order to qualify to appear in the high fertility group a country must have had TFR higher than 1.6 for all of the 20 years.⁸

After the division into the groups, descriptive statistics for the groups were calculated. The mean TFR for high fertility group consisting of 14 countries was 1,83, while for the low fertility group of 23 countries it was 1,4.⁹ As can be seen from the box plot in Figure 1, the division into the two groups is actually much less artificial than one would expect.

⁷ McDonald (2006) similarly divided developed countries into similar two groups.

⁸ With the exception of Sweden from 1997 to 2001 and Belgium from 1994 to 1995.

⁹ Data for Malta, Cyprus, Lithuania, Latvia, Croatia, Romania, Estonia, Slovenia, Bulgaria only from 1997 onwards.

We can see from the box-plot that two really distinct groups of countries exist. In fact, 75% of low fertility group countries have average fertility from the last 20 years lower than 1,48, while 75% of high fertility group countries have the average TFR higher than 1,73.

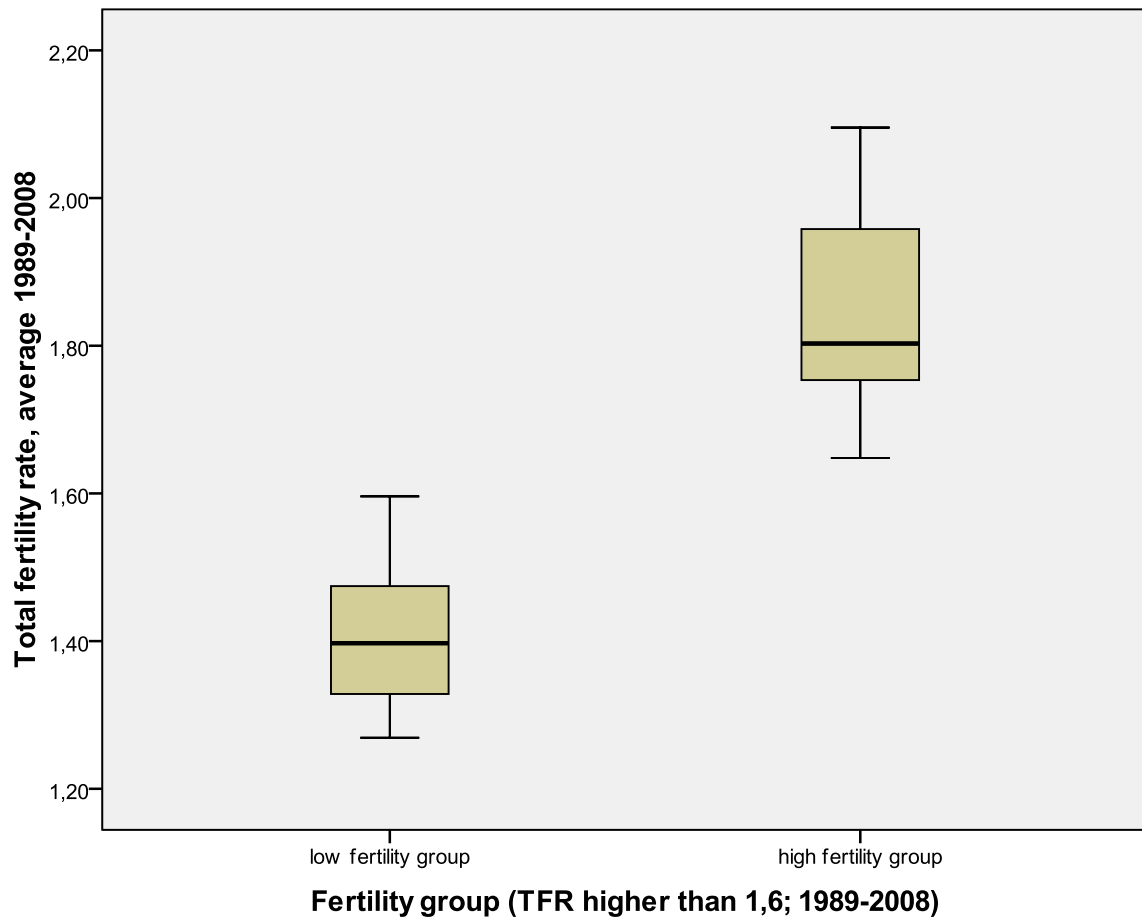


Figure 1: Boxplot of TFR by group

This is confirmed by a time-series of average TFR of the high fertility group versus the low fertility group, which can be seen in Figure 2.

And the difference in TFR of the groups has been increasing over time, as fertility in central and eastern European countries collapsed after the fall of communism, as can be seen in Figure 3.

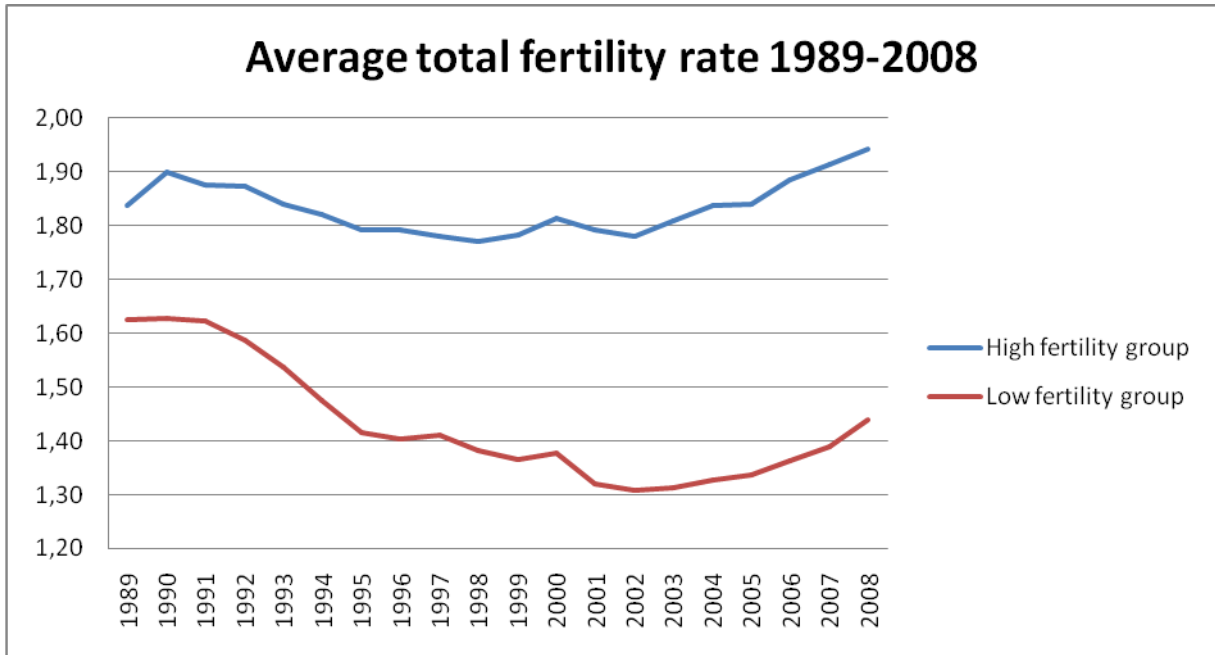


Figure 2: Time-series of average TFR of the high fertility group versus the low fertility group

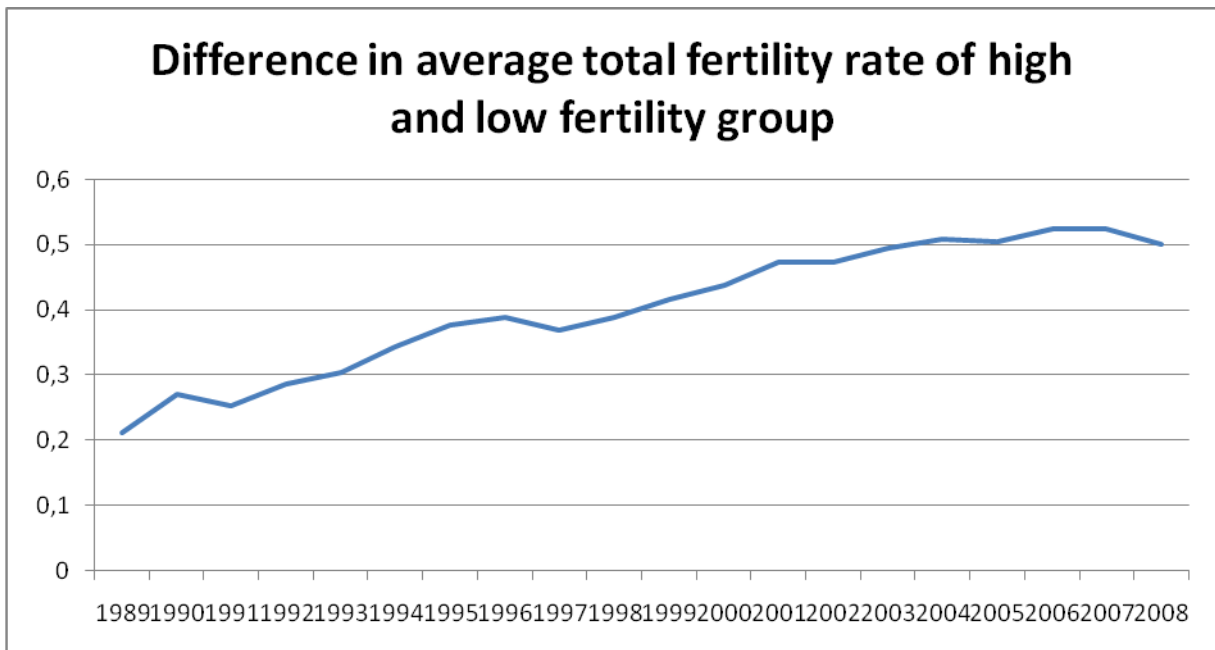


Figure 3: Time-series of the difference in average TFR of the high fertility group versus the low fertility group

When we compare the two groups according to the above described variables whose impact on fertility will be tested below (see Figure 4 below), we find out that the high fertility group is characterized by only very slightly higher level of 3 to 5 years care and lower level of leaves, but higher level of tax breaks and proportion of women working part time and significantly higher level of enrolment of under 3s in child-care and proportion of flexible workplace arrangements which result in doubling of the level of work-life balance index.

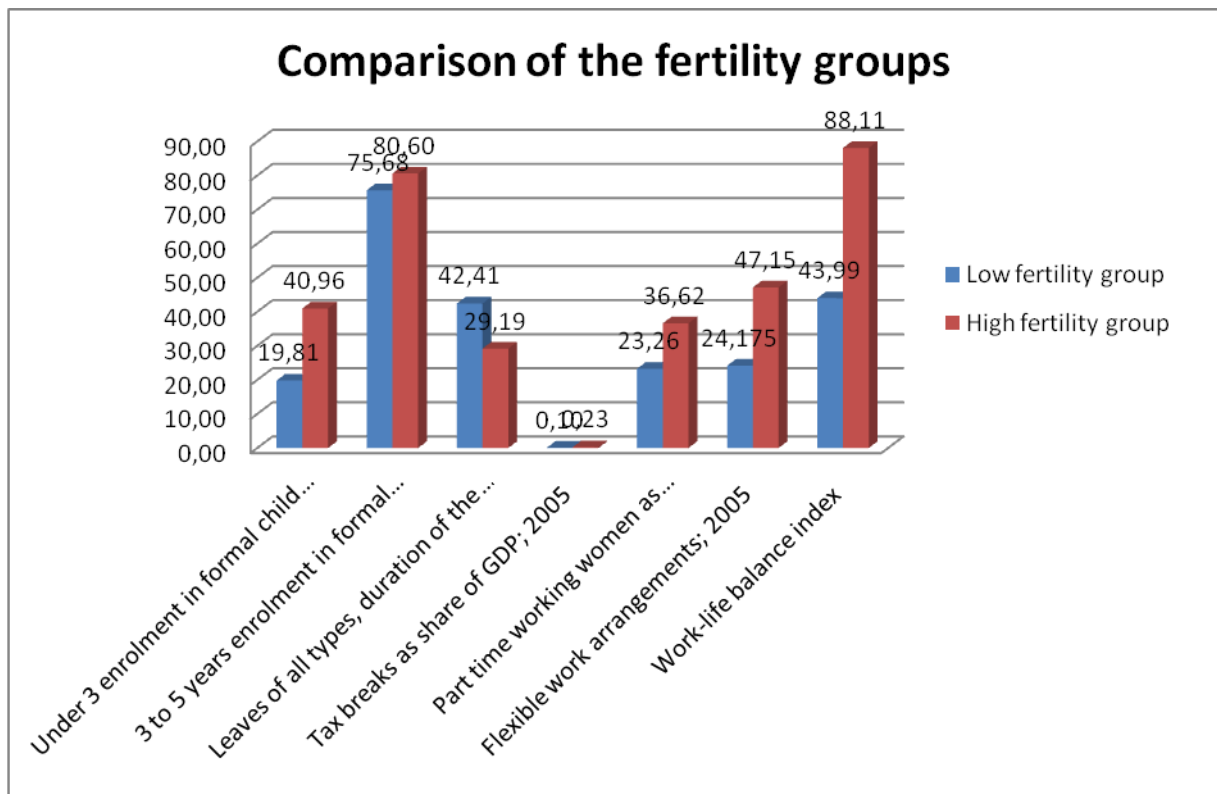


Figure 4: Comparison of the fertility groups

The picture we are getting from the statistics resembles the description of the differences between low and high fertility countries written by McDonald (2006: 499):

The responsibility for family caring and maintenance (beyond income) in [low fertility] countries falls almost exclusively upon women, that is, the male breadwinner model of the family remains largely intact. Because women are expected to provide caring and maintenance work, the service and public sectors in [low fertility] countries are generally smaller than in [high fertility] countries (Bettio and Villa 1998). In [high fertility] countries, these are the sectors that are more likely to

employ women and to have family-friendly work environments. It is no surprise then that both fertility and labor force participation rates for women are lower in [low fertility] countries.

By now we can already estimate what are going to be the results of the logistic regressions. And the results indeed confirm our expectations: as can be seen from Table 2 below:

	p value of the predictor when alone in the equation	Cox & Snell R Square of the model when using the variable as sole predictor	Cox & Snell R Square of the model when using the variable as sole predictor
3 to 5 years enrolment in formal care; 2006	,395	,022	,030
Leaves of all types, duration of the full-time equivalent of the leave period if paid at 100% of last earnings; 2006/2007	,169	,060	,080
Tax breaks as share of GDP; 2005	,143	,060	,082
Part time working women as percentage of all working women; 2008	,035	,200	,267
Under 3 enrolment in formal child care; 2006	,004	,417	,560
Flexible work arrangements; 2005	,008	,463	,643
Work-life balance index - under 3 enrolment + flexible work arrangements	,074	,672	,913

Table 2: Summary table of the results of logistic regressions with surveyed variables alone in the equation

When alone in the equation, part-time working, under 3 enrolment, flexible work arrangements and work-life balance index are significant. However, as can be seen from the values of Cox & Snell R Square and Cox & Snell R Square, under 3 enrolment, flexible work arrangements and work-life balance index predict belonging to the high fertility group much better than working part time.

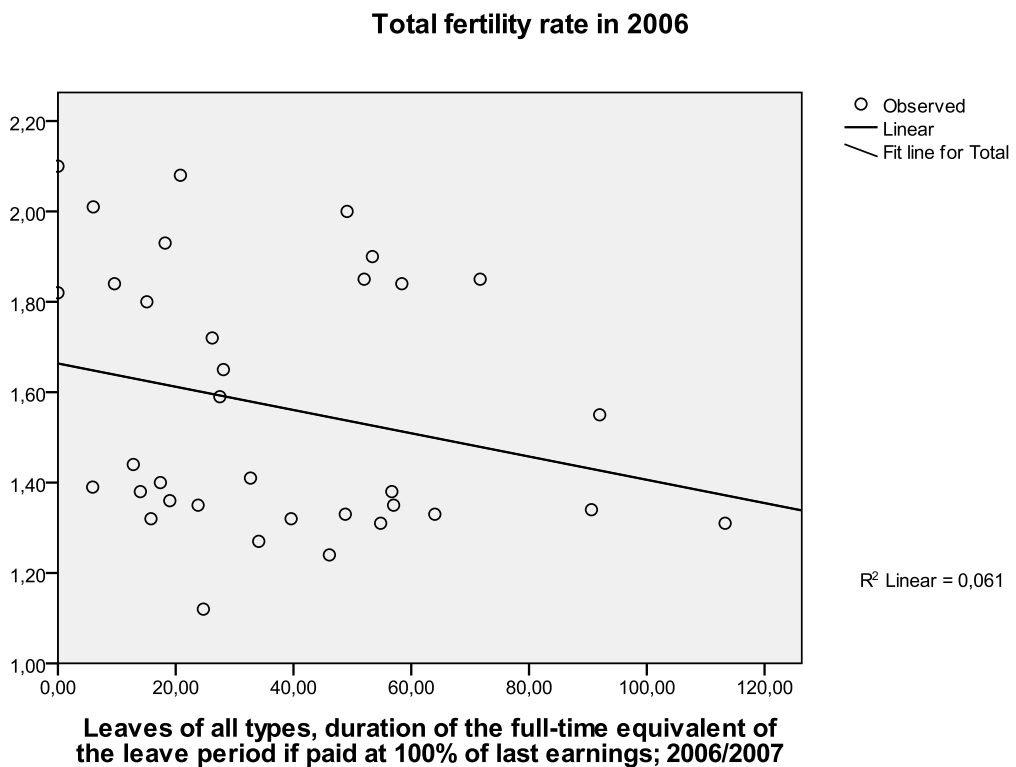
Practically same results are obtained when using linear regression, as can be seen from the Table 3 bellow. When predicting TFR in 2006, the same predictors were significant with similar differences in effect.

	p value of the model when alone in the equation	R²
3 to 5 years enrolment in formal care; 2006	,430	,02
Leaves of all types, duration of the full-time equivalent of the leave period if paid at 100% of last earnings; 2006/2007	,151	,061
Tax breaks as share of GDP; 2005	,143	,006
Part time working women as percentage of all working women; 2008	,036	,171
Under 3 enrolment in formal child care; 2006	,000	,371
Flexible work arrangements; 2005	,000	,469
Work-life balance index - under 3 enrolment + flexible work arrangements	,000	,623

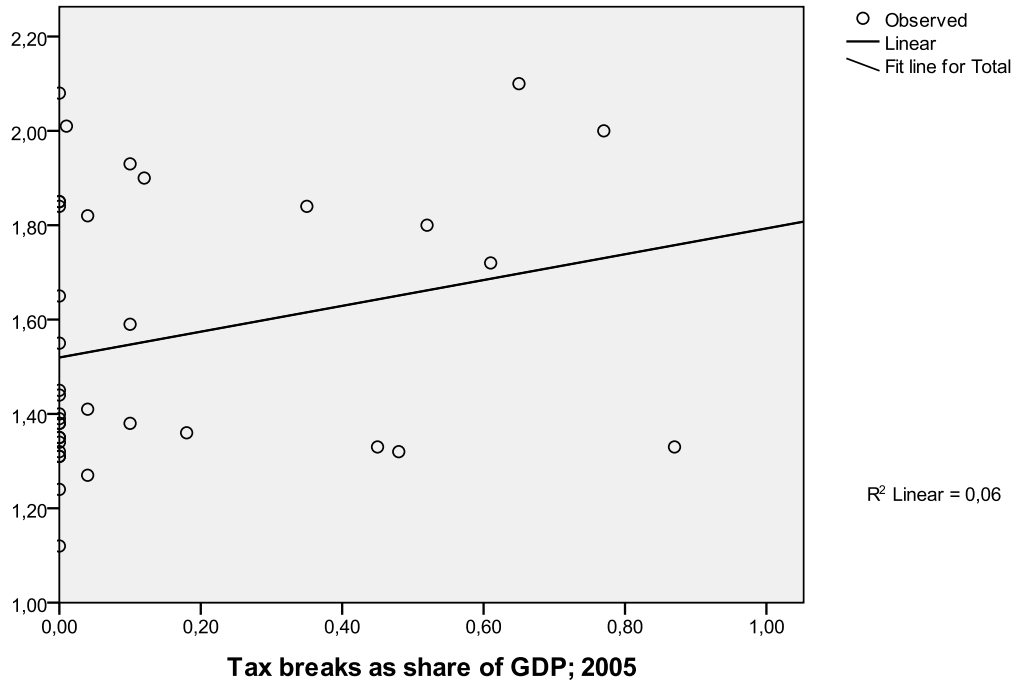
Table 3: Summary table of the results of linear regressions with surveyed variables alone in the equation

Graphically can be the relationship between surveyed variables and TFR seen in the following Figures 5-11, which show curve estimations for linear regression between the variables and the TFR.

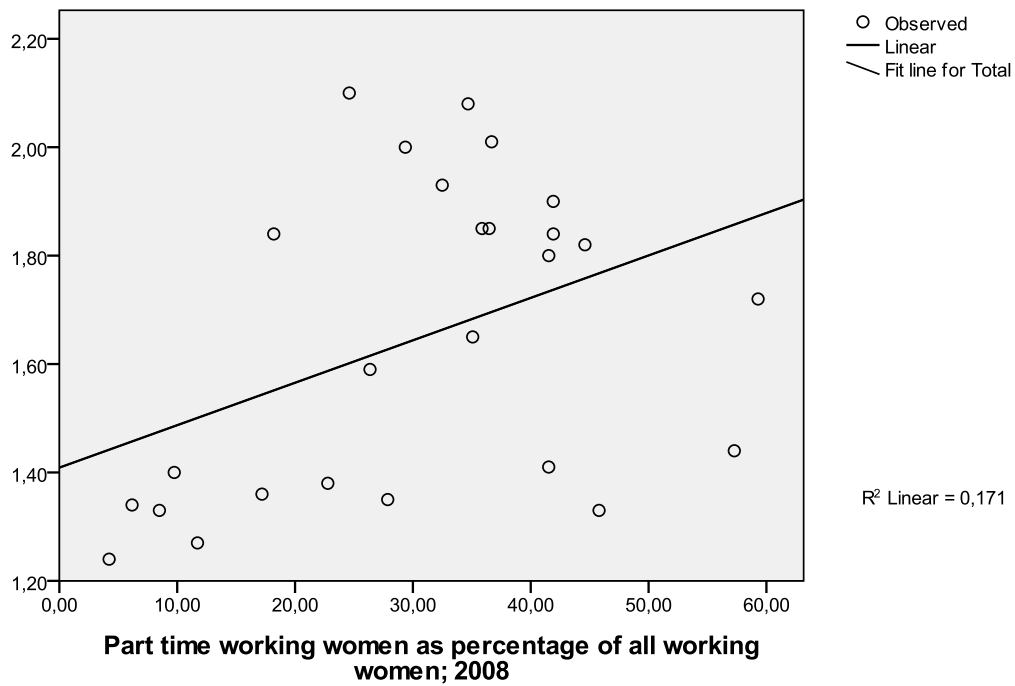
Figure 5-11: Curve estimations for linear regression between the variables and the TFR



Total fertility rate in 2006



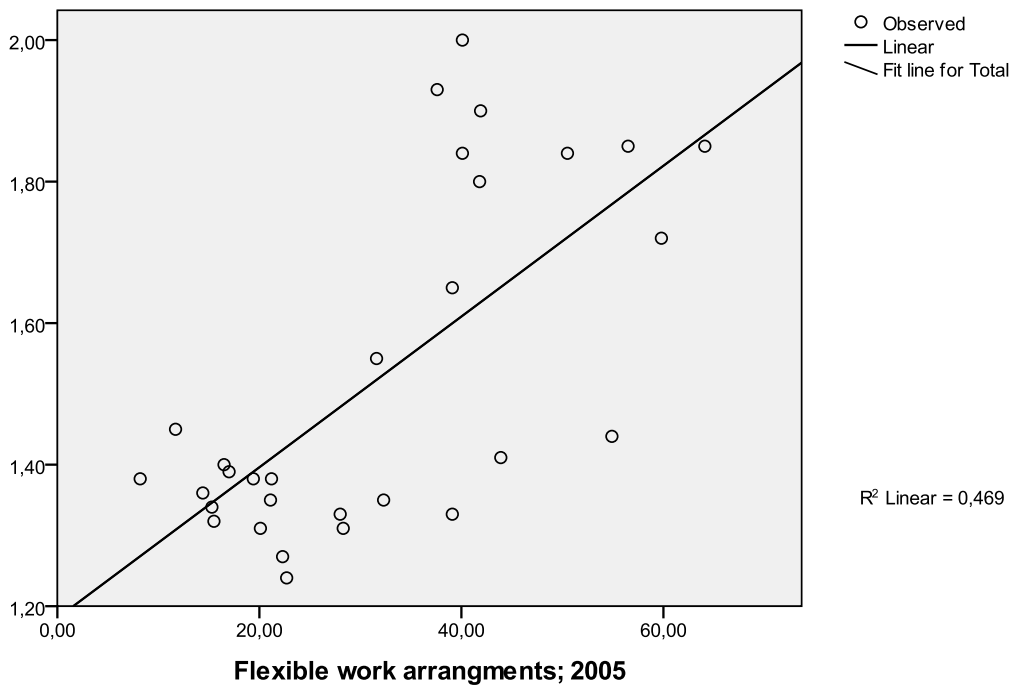
Total fertility rate in 2006

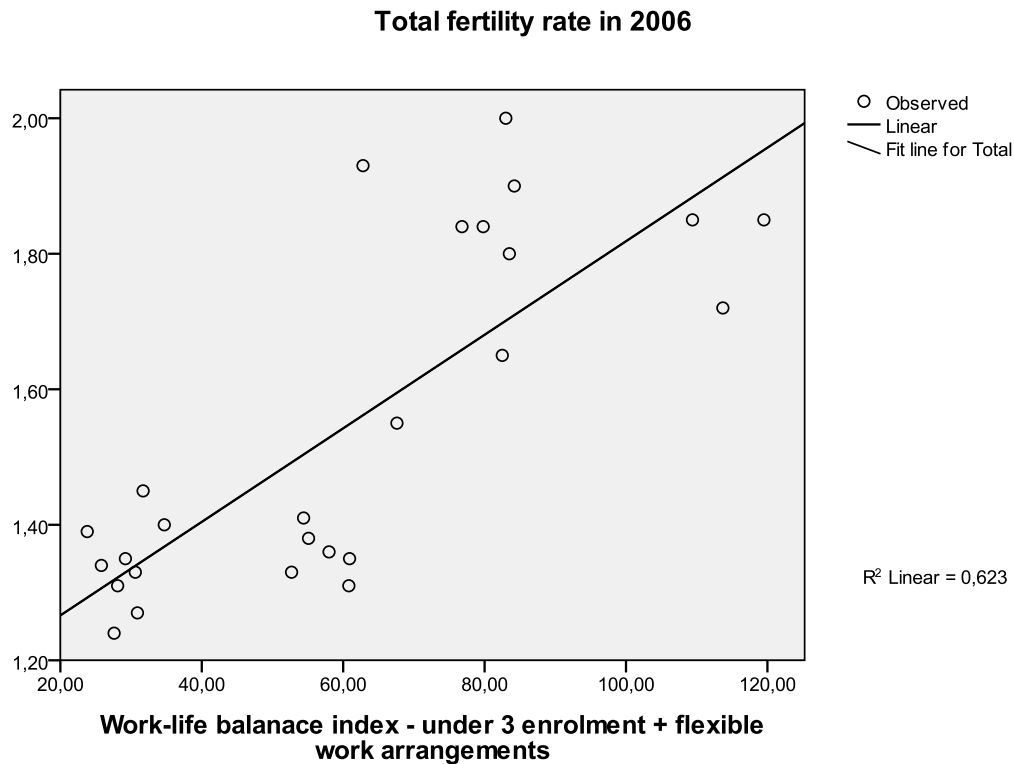


Total fertility rate in 2006



Total fertility rate in 2006





When we undertake logistic regression with all surveyed variables in the equation at the same time, the Exp B for enrollment from 3 to 5 and for the leaves is under 1 – these variables therefore actually decrease the odds of a country of belonging to the high fertility group. For the tax breaks the Exp B was just slightly above 1 indicating small effect, while for both under 3 enrolment and flexible work arrangements it is much higher (around 6 and 8 respectively) – indicating that these variables have similar and much larger effect than all other variables.

The same goes for multiple linear regression. As can be seen from the following tables 4 and 5 a model which includes all surveyed variables as predictors explains 64% of the variance in TFR with under 3 enrolment and flexible work arrangements being significant and having relatively large standardized B coefficients.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,799 ^a	,638	,566	,16813

a. Predictors: (Constant), Leaves of all types, duration of the full-time equivalent of the leave period if paid at 100% of last earnings; 2006/2007, Flexible work arrangements; 2005, Tax breaks as share of GDP; 2005, Under 3 enrolment in formal child care; 2006

Table 4: Model summary of linear regression using all variables as predictors

Model		Standardized Coefficients	Sig.
		Beta	
1	(Constant)		,000
	Under 3 enrolment in formal child care; 2006	,378	,048
	Flexible work arrangements; 2005	,486	,014
	Tax breaks as share of GDP; 2005	,043	,765
	Leaves of all types, duration of the full-time equivalent of the leave period if paid at 100% of last earnings; 2006/2007	-,040	,778

a. Dependent Variable: Total fertility rate in 2006

Table 5: Coefficient of the predictors in the linear regression

Otherwise, it has also been confirmed that leaves do not have any effect on fertility using index of leave generosity devised by Henau et al. (2007b) for EU15 countries. In this case the leaves have even been found to have significant and strong negative effect on fertility. While the childcare for under 3s have been found to positively affect fertility also when using its index devised for EU15 by Henau et al. (2007a) or using expenditures on child care as share of GDP.

However, as is evident from the results of both the logistic and linear regressions, care for under threes is not sufficient – flexible workplace arrangements play equally

significant role. This is confirmed by the fact that if we exclude from the linear regression Japan and Korea which have low fertility levels despite relatively higher care enrolment because of lack of flexible work arrangements and Australia which has higher fertility despite lower level of care enrolment because of more flexible work arrangements (OECD 2007) and US, than R^2 for care increases from 0,369 to 0,537.

The combined effect of these two variables is what increases the fertility the most. When we include the work-life balance index as predictor of TFR in 2006 in the equation of linear regression together with tax breaks and the leaves, it outperforms them by extremely wide margin as can be seen from the Table 7 below.

Model		Standardized Coefficients	
		Beta	Sig.
1	(Constant)		,000
	Tax breaks as share of GDP; 2005	,058	,678
	Leaves of all types, duration of the full-time equivalent of the leave period if paid at 100% of last earnings; 2006/2007	-,020	,886
	Work-life balance index - under 3 enrolment + flexible work arrangements	,776	,000

a. Dependent Variable: Total fertility rate in 2006

Table 7: Coefficients of selected predictors in linear regression model

Therefore we made a ranking of the studied countries according to the work-life balance index which can be seen in Figure 12 in the Appendices.

CONCLUSION

The empirical analysis confirmed all of the hypotheses put forth in the theoretical section:

Hypothesis 1: Leaves will have either no, or negative effect on fertility.

Hypothesis 2: Tax breaks will have only limited effect on fertility.

Hypothesis 3: Formal care for children under 3 years of age will have positive impact on fertility.

Hypothesis 4: Flexible workplace arrangements and practices will have positive impact on fertility.

Hypothesis 5: If we construct a “work-life balance index” combining child care for under threes with flexible workplace arrangements, it will have greater positive effect on fertility than the individual measures.

Hypothesis 6: Provision of care for children older than 3 years will not have positive effect on fertility.

The question posited in the introduction: what are the effects of different measures of family policy on fertility can be answered in the following way: while leaves, taxes and care for children from 3 to 5 do not have positive effect on fertility, measures which facilitate work-life balance such as care for under 3s and initiatives which increase the flexibility of work arrangements may help to increase fertility.

One last, but very interesting, thing which should be mentioned at this place, are the fiscal implications of these findings. From the fiscal point of view, the findings are good news. Promotion of flexible workplace arrangements doesn't incur almost any costs for the government and care for under 3s is also rather cheap – the best performing countries spend about 0,4 to 0,6 % of their GDP on the care which is much less than the 2,4% of their GDP Austria, 2,3% Germany or 1,7% Slovakia spend on leaves and tax

breaks (Scandinavian countries spend about 1,5% of their GDP on leaves and tax breaks).

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Table 1: Descriptive statistics for surveyed countries

(countries in high fertility group in blue; low fertility group in red)	Total fertility rate, average 1989-2008	3 to 5 years enrolment in formal care; 2006	Leaves of all types, duration of the full-time equivalent of the leave period if paid at 100% of last earnings; 2006/2007	Tax breaks as share of GDP; 2005	Part time working women as percentage of all working women; 2008	Under 3 enrolment in formal child care; 2006	Flexible work arrangements; 2005	Work-life balance index
Iceland	2,10	95,00	20,80	0,00	34,68	55,70		
United States	2,04	58,40	0,00	0,65	24,60	31,40		
New Zealand	2,02	94,50	6,00	0,01	36,68	37,90		
Ireland	1,96	49,40	18,20	0,10	32,49	25,20	37,60	62,80
Norway	1,86	94,50	53,40	0,12	41,91	42,30	41,90	84,20
High fertility group	1,84	80,60	29,19	0,23	36,62	40,96	47,15	89,52
France	1,83	100,00	49,10	0,77	29,36	42,90	40,10	83,00
Australia	1,82	59,40	0,00	0,04	44,60	24,80		
Sweden	1,79	85,60	71,70	0,00	35,87	45,30	64,10	109,40
Finland	1,78	67,80	58,40	0,00	18,19	26,30	50,50	76,80
Denmark	1,76	90,70	52,00	0,00	36,47	63,00	56,50	119,50
United Kingdom	1,75	90,50	9,60	0,35	41,91	39,70	40,10	79,80
Belgium	1,67	99,80	15,10	0,52	41,53	41,70	41,80	83,50
Luxembourg	1,66	85,20	28,10	0,00	35,07	43,40	39,10	82,50
Netherlands	1,65	57,6	26,2	0,61	59,29	53,9	59,8	113,7
Canada	1,6	56,8	27,5	0,1	26,36	24		
Malta	1,56	72,5	5,9	0		6,8	17	23,8
Cyprus	1,56	70,7		0		20	11,7	31,7

Poland	1,52	40,7	34,1	0,04	11,72	8,6	22,3	30,9
Slovakia	1,51	72,7	46,1	0	4,22	4,9	22,7	27,6
Switzerland	1,48		12,8	0	57,27		54,9	
Hungary	1,47	86,8	90,6	0	6,17	10,5	15,3	25,8
Portugal	1,46	78,9	19	0,18	17,19	43,6	14,4	58
Estonia	1,43	85,2	92	0		36	31,6	67,6
Korea	1,42	79,8	24,7	0		37,7		
Austria	1,42	74,9	32,7	0,04	41,52	10,5	43,9	54,4
Low fertility group	1,41	75,68	42,41	0,1	23,26	19,81	24,18	41,99
Japan	1,4	87,6	39,6	0,48		28,3		
Czech Republic	1,39	82,3	64	0,45	8,49	2,6	28	30,6
Croatia	1,38			0			19,4	
Lithuania	1,35	60,6	113,3	0		8	20,1	28,1
Germany	1,34	89,3	48,8	0,87	45,8	13,6	39,1	52,7
Greece	1,33	47,3	17,4	0	9,75	18,2	16,5	34,7
Latvia	1,32	77,3	57	0		8,1	21,1	29,2
Romania	1,3		15,8	0			15,5	
Italy	1,29	99,4	23,8	0	27,86	28,6	32,3	60,9
Spain	1,29	97,7	14	0,1	22,78	33,9	21,2	55,1
Slovenia	1,28	77,5	54,8	0		32,5	28,3	60,8
Bulgaria	1,27		56,7	0			8,2	

Figure 12: Ranking of the studied countries according to the work-life balance index

