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LABOUR FORCE INDICATORS AND FERTILITY IN ROMANIA. A MACRO-LEVEL ANALYSIS FOR 2000-2010

Abstract. *The complex relationship between fertility and the labour market poses many questions despite the large number of studies on the topic. Women participation on the labour market, gender gap or (long term) unemployment have been considered determinants of fertility during most of the second half of the last century and their influence on total fertility rates was studied for many countries and periods. The present paper aims at showing the influence of the employment rate of women, the absolute gender gap in unemployment and the long-term unemployment rate on the total fertility rate in Romania for the period 2000-2010, taking into account the socio-economic context. The results show that it is not high women employment that correlates with high fertility on the short to medium term in Romania, but the equality of chances and the perspective of finding a job.*

Keywords: *total fertility rate, employment of women, gender gap, long term unemployment.*

JEL Classification: J13, J21, J64

Introduction

In 1970 Bumpass and Westoff (quoted in Brewster and Rindfuss, 2000, p. 271) raised the following question: "Do women limit their fertility in order to have time to pursue their nonfamily-oriented interests, or do women work if their fertility level permits them to do so?". Despite the vast amount of research done on the topic so far, there is still no clear answer to this question. Nevertheless, remarkable progress has been made in untwining the tangled web around the relationship between fertility and women labour market participation and the results have shown that it goes both ways (Bloom et al., 2010).

Studies on the influence of fertility on the labour market focus on the share of the working-age population and show that, while on the short-run the decrease in

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fertility levels leads to a relative increase in the share of the working-age population by decreasing the share of youth (Bloom et al., 2010), on the long-term, the deterioration of the age structure has damaging effects on economies. It is thus recommendable not to allow fertility levels to decrease too much or for too long.

On the other hand, Lee (2003) argues that this is just a phase in the demographic transition and that, in time, both fertility and mortality will stabilize. Thus, when equilibrium will be reached, the various shares of population will again be approximately as the initial ones.

Nevertheless, in a forthcoming paper analysing the relationship between the optimal fertility and the economic context, Lee and Mason argue that the question of optimal fertility must be approached taking into consideration such economic aspects as fiscal sustainability of various levels of fertility, life-cycle consumption and general support ratios for each country. Thus, they conclude that there are no economic grounds for the developed countries to worry about sub-replacement level if intergenerational transfers (broadly defined) and capital are included in the analysis.

From the opposite perspective, the labour market also influences fertility through labour force, especially the labour force participation of women (Adsera, 2005; Billari, 2008; Billari and Kohler, 2004; Bloom et al., 2010). Adsera (2005) states that there are two possible reasons for fertility decline namely decrease in the ideal number of children and increased participation of women on the labour market. Under normal circumstances, if people want fewer children, they will have fewer children, thus there is a direct relationship between the ideal number of children and the total fertility rate. Surveys on European populations (for example the Generations and Gender Survey) indicate that the ideal number of children currently averages around the replacement threshold of 2.1 children per woman, however, the ideal family size decreased since the onset of the demographic transition. Nevertheless, understanding fertility decline requires an analysis of other possible factors as well.

The increase in women participation on the labour market was a strong determinant of fertility decline in the post-war period until the 1990s, but the situation is different in the present. The traditional gender division of responsibilities is more and more challenged by recent evolutions (see debate about the Second Demographic Transition since van de Kaa, 1987). Increasing participation of women on the labour market triggered important changes in all European societies.

According to the economic theory developed on data from Western Europe, increase in the wage rate of women leads to increase in their participation to the labour force. The effects of such measures are multiple. For the woman, it implies greater independence both from parents and from partners, as well as providing strong incentives for pursuing education. This led to a decline in fertility due to the increased costs of children. Also, Billari and Kohler (2004) assert that to these facts

a low income elasticity of the number of children should be added. According to this theory, fertility and women labour force participation should be inversely correlated. This relationship was indeed found for developed countries in until the mid-1980s or early 1990s (Ahn and Mira, 2002; Brewster and Rindfuss, 2000; Engelhardt et al., 2004; Kögel, 2004).

In parallel, the emergence of individualism strengthened the negative relationship between fertility and women labour force participation. As living standard of a couple became increasingly more dependent on incomes of both partners, the absence from the labour market of either one of them tended to be increasingly more expensive. Thus, the opportunity costs of having a child increased, both from the living standard point of view, and from the perspective of the effect an absence would have on the future human capital development of the person (Bloom et al., 2010). However, having a full-time job on the labour market was not compatible with being a mother and there was a complete lack of institutional measures to help combining work and family (Brewster and Rindfuss, 2000). Therefore, increasingly more women were faced with the choice between becoming mothers or employees.

Nevertheless, studies comparing different countries indicate that in the beginning of the last decade of the 20th century, the relationship between fertility and the labour force participation of women reversed and it is considered that it was the emergence of lowest-low fertility that made this switch possible (Billari, 2008; Billari and Kohler, 2004). Together with the reversal in the correlation with participation of women on the labour market, the relationship of fertility with most of its traditional determinants suffered crucial changes that challenge the traditional wisdom regarding fertility determinants (Billari and Kohler, 2004).

Stimulated by the decreasing fertility rates, many countries began to adopt measures aiming at stopping the decline. However, there were various kinds of measures applied, leading to various outcomes. Starting from the classification of Esping-Andersen, with the subsequent additional features, four types of family policy regimes may be distinguished for Western Europe (Haragus, 2008, p. 61). One is the social-democrat regime, which supports families and working parents, as well as gender equality. This regime is characteristic to the Northern countries. Another regime is the conservative one, within which support varies according to the occupational status of parents and is based on a more traditional gender division of labour. This kind of system is characteristic for Germany, Netherlands and France. A third type is characteristic to Southern Europe and it tends to let the responsibility of caring for children to the families, thus accentuating its role when it comes to childcare. The last type is the liberal regime, oriented mostly towards those with greater needs, but which allows the market, especially the childcare one, to develop. According to Billari (2008), the Central and Eastern European countries tend to shape welfare regimes similar to one or another of the four mentioned above.

Inequalities between unemployment rates for the two genders, combined with long-term unemployment lead to lower propensity to have children and a

lower fertility rate. Simulation results in Adsera (2005) show that first birth would be almost universal in a context of equality of chances on the labour market and low long-term unemployment. Propensity for a second and third birth would be relatively high as well. On the other hand, a significant decrease in the average number of children per woman is registered with a 10-point gender gap in unemployment rates and high long-term unemployment.

In Romania, the fall of the former regime led to a transition period that brought a series of fluctuations and dramatic changes in the evolution of the various demo-economic indicators. Among them was also the fertility rate, which began to decline rapidly, reaching historical minimums for modern Romania. This situation strongly contrasted with the above replacement levels registered after the entering into force of the pronatalist legislation of the former regime. Such an evolution of fertility has a deep and long-term impact on the age structure of the population (Ghetau, 2007; Mihaescu et al., 2009).

The consequences have already begun to be felt, most stringent on the labour market, but for the social security budget as well. Increasingly smaller cohorts enter the labour market and contribute to the social security budget (and they are further diminished by a longer time spent in education and by emigration). On the other hand, the relatively larger cohorts of the "natural" baby-boom (1950s) have already started to retire, and their number is supplemented by the pensioners that benefited from the early retirement schemes of the late 1990s and the early 2000s. However, the consequences of such changes in the age structure will most intensely be felt starting with 2032, when the cohorts born during the policy-driven baby-boom (1967-1989) will begin to retire and they will have to be supported by the small cohorts born after 1990. Thus, an increasing burden is placed on a decreasing active population, for maintaining an already reduced living standard of an increasingly larger inactive population.

In such a context, having children is conditioned by incomes earned by both parents. Thus, it is important to assess the impact of indicators regarding participation to the labour market of both men and women. However, since men labour force participation is traditionally higher than that of women, we will focus our analysis on the later. Furthermore, since being part of the active population is not equivalent to having a job, the chances of getting a job for the unemployed and the equality of chances for the two genders will also be taken into account. Thus, the present paper aims at showing the influence of employment rate of women, absolute gender gap in unemployment and long term unemployment rate on the total fertility rate in Romania for the period between 2000 and 2010, taking into account the socio-economic context.

Data and Methods

The economic transition in the Central and Eastern European countries was completed or almost completed by the year 2000 and Romania is not an exception.

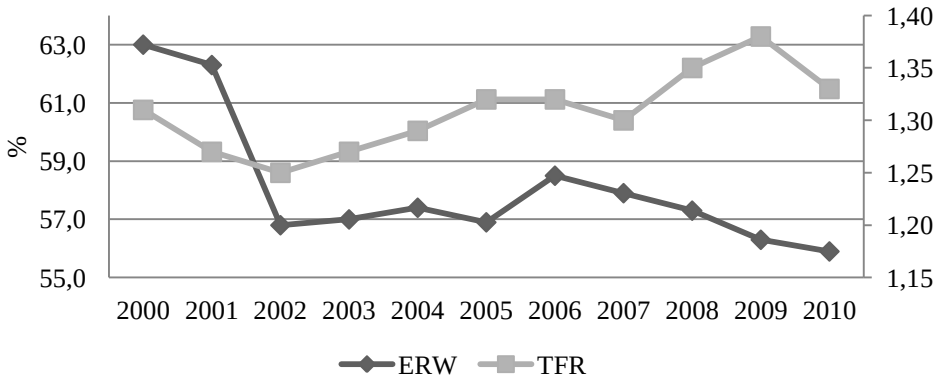
For this reason the period 2000-2010 is better suited for our purpose than the period including the 1990s, since it is less affected by the transition process to a market economy and data are more reliable. All the data used come from the EUROSTAT database.

Based on the literature and the context of Romania during 2000-2010, we defined the following three research hypotheses:

H1: there is a positive correlation between fertility and women labour force participation (measured through employment rate of women).

Employment rate of women is computed as the number of employed women aged 15-64 divided by the total female population aged 15-64 years. This indicator was found to be positively correlated with fertility after 1990s in cross-country comparisons, indicating that in contexts with high employment rate of women, fertility also tends to be high. The evolution of the two indicators for Romania (Figure 1) indicates that fertility and employment rate tend to be increasing or decreasing together. Starting from this result and keeping in mind the 70% employment rate goal of the Lisbon strategy, we will see whether it is safe to assume that Romanian policy makers may target increasing fertility by stimulating women labour force participation.

Figure 1. ***Evolution of women employment rate (ERW; left axis) and total fertility rate (TFR; right axis) in Romania***



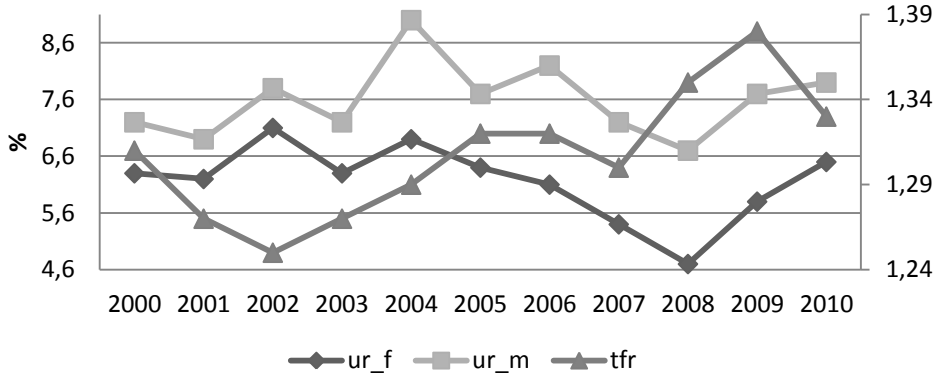
Source: based on data from EUROSTAT

H2: the lower the absolute gender gap in unemployment, the higher the total fertility rate

The absolute difference in unemployment rate is computed based on the unemployment rates of men and women, not taking the sign into account. Adsera's (2005) study on 13 European countries indicates that a small gender gap in unemployment has a positive effect on fertility. Moreover, in the Romanian context, as in other former socialist countries where there is gender inequality both in the household and on the labour market (for example Bulgaria or Estonia), the unemployment rate of men is higher than that of women. This might seem

surprising at first. However, we should take into account the transition period and the economic fluctuations, which led many women to become (involuntarily) inactive. Furthermore, a lower unemployment rate for women, compared to men, could be considered as a larger gender gap. Currently, the economic context is such, that the average family needs two income-earning parents to be able to support their children, thus we intended to see if aiming at decreasing the absolute gender gap will help increasing fertility.

Figure 2. ***Evolution of unemployment rate of women (URW; left axis), men (URM; left axis) and total fertility rate (TFR; right axis) in Romania***

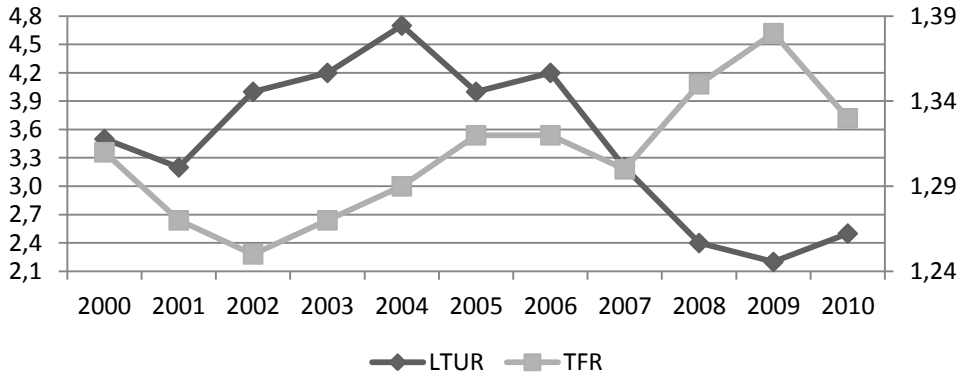


Source: based on data from EUROSTAT

H3: better prospects of employment (measured through a low long-term unemployment rate) are positively correlated with fertility.

Long term unemployment rate is defined as the percentage of people who are unemployed for more than 12 months among the unemployed. At macroeconomic level, high long-term unemployment indicates a structural problem of the economy, while the consequences for the individual are reflected in a low(er) living standard, which would discourage couples to have children. Our analysis studies whether decreasing long-term unemployment may be, as the evolution of the indicator suggests (Figure 3) a leverage for policymakers aiming at increasing fertility.

Figure 3. ***Evolution of the long-term unemployment rate (LTUR); left axis) and total fertility rate (TFR; right axis) in Romania***



Source: based on data from EUROSTAT

The analysis is based on the assumption that the period does not include major events that might cause sudden changes in the evolution of the indicators studied. We used this approach despite the historical context, which had an influence both on fertility and on the labour market. Although there was some reaction to the policy measures aiming at increasing fertility, which would explain the higher level of fertility in 2009, their effect was notable only on the short-term, mostly in the 1 or 2 years after their introduction. There were increases following both the 2003 and 2008 provisions according to which the allowance was going to be 85% of the average monthly incomes of the mother during the 12 months prior to the birth, and the 2004 provisions establishing a fixed quota of 800 lei (the net average salary in 2004 was around 600 lei). Also, the economic crisis that stated in 2008 is notable, more pronouncedly in the indicators concerning labour force participation. Nevertheless, the short time span on which we are focusing does not allow for breaking the series in several sub-series in order to analyze the effects of these events.

A first assessment of the relationship between the total fertility rate and employment rate of women, absolute gender gap in unemployment and long-term unemployment rate was done using the Pearson correlation coefficient, which was then tested for significance. In the case of the gender gap in unemployment, we considered useful to see whether the difference between the unemployment rate of men and women is significant. To this aim, we performed a paired t-test analysis.

A more useful evaluation was done with the help of a multiple linear regression, using the total fertility rate as the predicted variable and employment rate of women, absolute gender gap in unemployment and long-term unemployment rate as predictors. Although it is possible that individual fertility decisions are influenced by the levels of our predictors from the previous year, the

current paper intends to show the macro-level relationship between the predictors and the predicted variable rather than the mechanism behind the decisions taken at the micro-level. For this reason, the variables were introduced in the model without any lag.

Results

Using the Pearson correlation coefficient we were able to determine the strength and the direction of the relationship between the four indicators considered, namely the total fertility rate, the employment rate of women, the absolute gender gap in unemployment and the long term unemployment rate. These correlation coefficients were then tested for statistical significance.

First, the correlations between the three variables in Table 1 are not statistically significant, indicating that the variables do not overlap to an extent that might compromise the analysis.

The results in Figure 4 show that there is a weak negative correlation of the total fertility rate with employment rate of women, which would indicate that fertility tends to be high in years when women employment rate is low. However, this coefficient is not statistically significant (p-value=0.424>0.05), thus this finding may be due to chance.

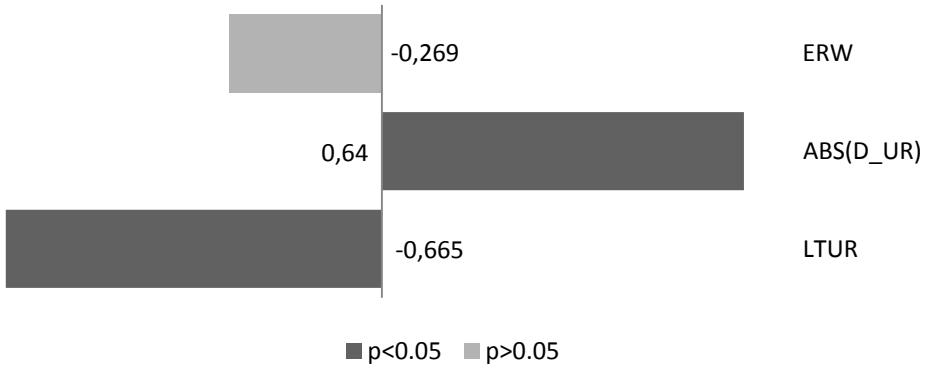
Table 1. ***Pearson Correlation Coefficients for employment rate of women (ERW), absolute gender gap in unemployment (ABS(D_UR)) and long-term unemployment rate (LTUR)***

	Pearson Correlation			Sig. (2-tailed)		
	ERW	LTUR	ABS(D_UR)	ERW	LTUR	ABS(D_UR)
ERW	1	.084	-.411	.807		.210
LTUR	.084	1	-.132			.699
ABS(D_UR)	-.411	-.132	1			

The second indicator, the absolute gender gap in unemployment, correlates positively with the total fertility rate (Figure 4), which indicates that an increase in the absolute gender gap is matched to an increase in the total fertility rate. This correlation is statistically significant (p-value=0.025).

Long-term unemployment rate also correlates significantly with the total fertility rate (p-value=0.034), although the relationship between the two is negative (Figure 4), an increase in the long-term unemployment rate corresponding to a decrease in the total fertility rate.

Figure 4. ***Correlations between the total fertility rate and employment rate of women (ERW), absolute gender gap in unemployment (ABS(D_UR)) and long-term unemployment rate (LTUR)***



Source: based on data from EUROSTAT

Since the influence of the gender gap on the total fertility rate was found to be significant and quite strong, we performed a paired t-test in order to determine whether the difference between the unemployment rate of men (URM) and that of women (URW) is statistically significant. The results are presented in Tables 2-4 below. The first remark is that the unemployment rate of men is higher than that of women by almost 1.5 points. Also, there is a strong, significant correlation between the two variables, which means that for years when unemployment rate for one gender is high, that of the other gender is also high. After performing the t-test, the results show that the unemployment rate of men is significantly higher than that of women, the difference being between 1.055 and 1.818.

Table 2. ***Paired Samples Statistics***

	Mean	N	Std. Deviation	Std. Error Mean
URM	7.591	11	.6519	.1965
URW	6.155	11	.6699	.2020

Table 3. ***Paired Samples Correlations***

	N	Correlation	Sig.
URM & URW	11	.631	.037

Table 4. ***Paired Samples Test***

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Dev.	Std. Error Mean	95% C.I. of the Difference Lower	Upper			
URM-URW	1.436	.568	.171	1.055	1.818	8.388	10	.000

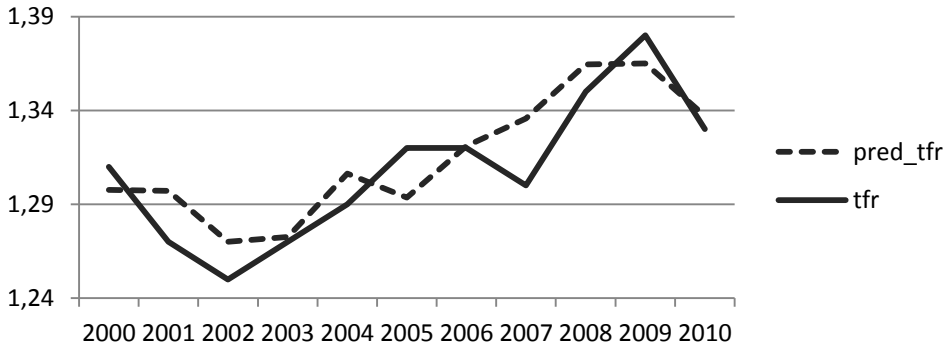
The results presented so far were concerning the bivariate relationship between the total fertility rate and each of the three indicators considered. Further insight may be gained by showing the influence of each of them on the total fertility rate when controlling for the others. To this purpose, we ran a multiple regression analysis using the total fertility rate (TFR) as the predicted variable and employment rate of women (ERW), absolute gender gap in unemployment (ABS(D_UR)) and long-term unemployment rate (LTUR) as predictors.

The model obtained is presented in equation (1) and the real and predicted values are sjown in Figure 5.

(1)

The value of R^2 is 0.754 and the model is significant (F=7.165, Sig=0.015).

Figure 5. ***Real and predicted TFR, based on the model in equation (1)***



Source: based on data from EUROSTAT

The normality of residuals is confirmed both by the Kolmogorov-Smirnov and the Shapiro-Wilk tests for normality (Table 5).

Table 5. ***Tests of normality***

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Unstandardized Residual	.131	11	.200*	.973	11	.915

a. Lilliefors Significance Correction

* This is a lower bound of the true significance.

Heteroskedasticity is also not an issue, the correlations between the unstandardized residual variable and each of the predictors being highly non significant (Table 6).

Table 6. ***Correlations between the errors and the predictors***

		ERW	LTUR	ABS(D_UR)
Unstandardized Residual	Pearson Correlation	-.046	.000	.000
	Sig. (2-tailed)	.892	1.000	1.000
	N	11	11	11

The assumption of non-collinearity was confirmed using the Tolerance and VIF statistics in the SPSS output. The values for both are well within the recommended limits of above 0.1 for Tolerance and below 10 for VIF (Table 7). Using the squared part correlation coefficient, which is an indicator of the unique variance shared between the predictor and the predicted variable, it is possible to fully deconstruct variance components in a regression analysis (Table 7). Thus, summing all the squared part correlation coefficients and subtracting it from the overall R^2 we obtain the common variance shared by all the predictors with the predicted variable. In our model, the value is 0.149, which means that out of the 75.4% of the variance explained by the model, 14.9% is variance shared between the predictors. The value is sufficiently low to allow us to accept the assumption that multicollinearity is not an issue for our model.

Table 7. ***Partial and part correlations of predictors and the predicted variable***

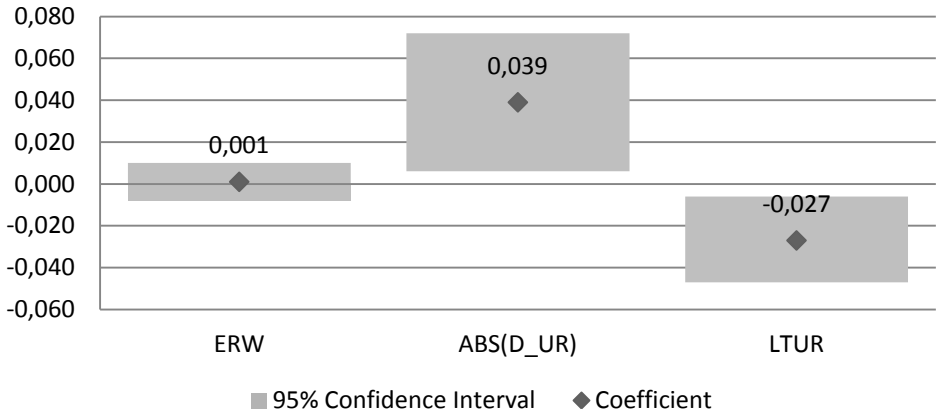
Collinearity Statistics		Partial	Part	$Part^2$
Tolerance	VIF			
.814	1.228	0.076	0.038	0.001
.803	1.246	0.724	0.52	0.270
.967	1.034	-0.758	-0.577	0.333
			Sum of $Part^2$	0.605

The autocorrelation of errors was tested using the Durbin-Watson test. The computed value of the test is d=2.143, indicating a slight negative autocorrelation. The critical values for 3 predictors (without the constant) and 11 observations for α=0.05 are d_L=0.59 and d_U=1.93, thus the interval within which d should fall in

case of no autocorrelation is [1.93;2.07]. The value obtained for our data is larger than 2.07, but smaller than 3.4 (computed as $4-d_L$), which means the test is inconclusive. However, given the fact that the computed value is very close to the non-autocorrelation threshold, but keeping in mind that a negative auto-correlation of residuals might still be present, we proceed to presenting and interpreting the results obtained.

The coefficients obtained are presented in Figure 6 together with their confidence intervals. As may be seen, the value of the coefficient for the employment rate of women is very close to zero and its confidence interval actually comprises zero, which is consistent with the high p-value (0.845) obtained after performing the t-test.

Figure 6. ***Coefficients of the multiple linear regression, dependent variable TFR***



Source: based on data from EUROSTAT

The influence of the other two values is, as also suggested by the correlation coefficients analysed before, significant and relatively strong. Confirming the results of the correlation analysis, the absolute gender gap in unemployment has a positive influence on the total fertility rate, thus a 1 point increase in the gap causing the TFR to increase by 0.039 points. In the case of the long-term unemployment rate, the relationship is negative, decreasing long-term unemployment rate by 1 point leading to a 0.027 points increase in the total fertility rate.

Discussion

The three hypotheses of the present study were only partially confirmed for Romania. Further, we will discuss our findings starting from these hypotheses.

H1: there is a positive correlation between fertility and women labour force participation

Although several cross-country comparative studies focusing on the influence of women labour force participation on fertility in developed countries indicate that higher employment of women has a positive effect on the total fertility rate after mid-1980s or early 1990s, the analysis on Romania for the period 2000-2010 does not confirm this hypothesis, employment rate of women being slightly negative, but not significantly correlated with fertility.

One possible explanation for this finding is the slow change over time in both indicators, which means that the analysed period may be too short in order to detect any significant relationship between them. In this case, the negative value obtained may be a simple matter of coincidence.

On the other hand, the evolution of both indicators (Figure 1) seems to indicate a positive correlation between them until 2007 and negative one for 2008-2010 if taking into account that the total fertility rate for 2008 and 2010 was almost the same, while employment rate of women registered a steady decline. Thus, the negative value obtained, although not statistically significant, may indicate that the most recent economic crisis had a negative impact powerful enough to reverse the positive correlation.

Further analysis is needed in order to better assess the influence of women employment on the total fertility rate in Romania and it should take into account the specific context created since 1990. Namely, a detailed analysis should consider the various early retirement schemes of the 1990s and early 2000s, which diminished the active population, as well as (in)voluntary inactivity due to economic situation.

H2: the lower the gender gap in unemployment, the higher the total fertility rate

Studies on developed countries indicate that equality of chances on the labour market is an important factor determining the evolution of fertility, since men and women benefit from equal chances in education and they have the same qualifications. However, employers seem to be more inclined towards choosing one gender or another, depending on the specific field they are in, when faced with two people equally qualified for the job. This generates a gap in unemployment levels, which means a person is more or less disadvantaged in finding a job.

In the context of Romania the impact of the gender gap is significant, since the relatively low living standard as compared to Western Europe requires both partners to have a job in order to have a child. Nevertheless, our findings contradict the initial hypothesis, indicating that a bigger total fertility rate is associated with a larger gender gap in unemployment.

A possible explanation for this situation is given by the comparison of the unemployment rates for men and women. The paired t-test performed on these variables shows that there is a strong significant correlation between the two, which is to be expected. However, the gap is in favour of women, which means that men are more exposed to the risk of being unemployed than women.

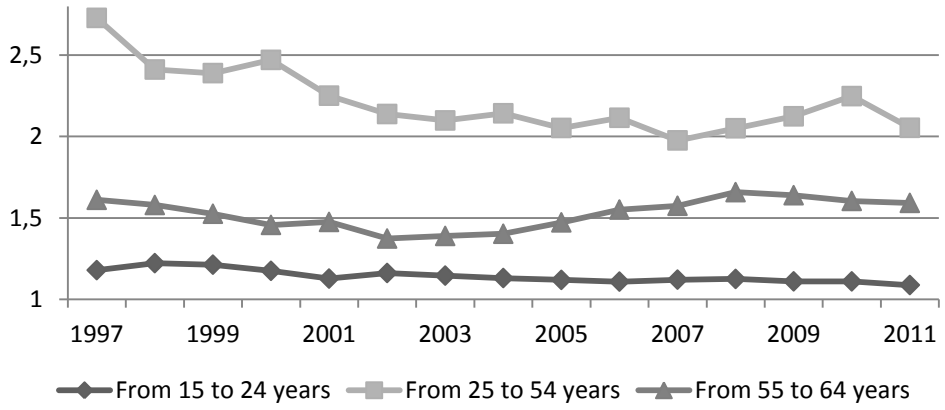
Although this result may seem rather confusing, it is possible to find explanations if we take into account the socio-economic context. There is a high

inactivity rate of both women and men aged 15 to 24 years, which may satisfyingly be explained through increased time spent in education. The ratio of women to men who are inactive in this age group between 1997 and 2011 varies between 1.08 and 1.22 (Figure 7).

For the elderly, a higher inactivity rate of women as compared to men is expectable since the official retirement age in Romania is 63 years for women and 65 years for men. However, the ratio declines until 2002, with a small bump in 2001, and then it increases again (Figure 7). The variation for the period is between 1.37 and 1.66 inactive women for each man.

Nevertheless, what seems to have the biggest impact is the ratio for the age group 25 to 54 years (Figure 7), which declines from 2.73 in 1997 to 1.98 in 2007 and increases again to 2.05 in 2011. This means that there were between 2 and 3 inactive women for each man during this period. The official employment in Romania before the 1989 revolution was almost universal, thus the evolutions after 1990 are the ones with significant influence. For the cause of the substantial increase in the number of inactive women as compared to men, one must, once again, take into account the early retirement schemes, which had a significant impact on the active/inactive ratio, the possibility and readiness of women to become housewives, as well as their increased risk to become involuntarily inactive.

Figure 7. ***Evolution of the inactive women to inactive men ratio in Romania during 1997-2011***



Source: based in data from EUROSTAT

Also, an important factor that should be considered is the black labour market, to which many workers turned because of the financial advantages it seemed to offer. Since jobs on this market were almost always low-profile jobs and badly paid, they were done mostly by disadvantaged categories of population, among which probably women from the 25-54 years age group. Thus, although they might

have been registered as inactive, these categories of population were actually earning some income. From the couple point of view, this still means a two-earner household.

In order to better understand the relationship between fertility and gender gap in unemployment in Romania, subsequent studies should take these aspects into account.

H3: better prospects of employment (measured through a low long-term unemployment rate) are positively correlated with fertility

According to the literature on the relationship between fertility and unemployment, perspectives of finding a job are important determinants of the total fertility rate. If short-term unemployment may be a positive stimulant for fertility by decreasing the opportunity cost of a child, long-term unemployment has a negative impact by causing household income to diminish and human capital accumulation to depreciate (Bloom et al., 2010). Our findings confirm the hypothesis according to which the relationship between long-term unemployment and fertility is a negative one. Therefore, the analysis confirms that the lower the long-term unemployment rate, the higher the total fertility rate.

Further research on this topic might also include a comparison between the effects of short and long-term unemployment on fertility, as well as a more detailed impact of long-term unemployment rate on fertility levels.

Conclusions

The results obtained lead to some target areas for policy makers. One is increasing labour force participation, with a special focus on women, since they are the primary determinants of fertility levels. This may be done by encouraging the inactive persons to become active, by offering financial stimulations and social benefits, and encouraging both employers and employees to leave the black labour market and integrate into the official one.

Secondly, increasing employment rates will inevitably lead to a short-term increase in unemployment rates as more qualified workers integrated into the market replace the ones that become obsolete, thus stimulating the later to update their qualification. Also, since there are more women than men to be attracted into the market, the unemployment rate of women might surpass that of men, thus leading to the negative correlation between gender gap in unemployment and fertility that is found in countries where gender equality is greater. This is an issue that will have to be tackled with and it may be done by encouraging people to adhere to life-long learning, as well as promoting equality of chances among the employers.

Thirdly, finding an optimal equilibrium between short and long-term unemployment, while reducing overall unemployment, may be a challenge difficult to deal with. Nevertheless, measures with long-term effect, such as educating, stimulating and encouraging all stakeholders to adhere to a competitiveness and

efficiency-based model will have positive effects on fertility as well, by increasing the population's wellbeing and living standard.

Last, but not least, increasing compatibility between work and family is also an important issue to be tackled. For this problem various solutions may be found in Western Europe, such as flexible working hours or increased childcare facilities. They are important since working parents must be able to take care of their children as well as working, thus, the lack of such incentives may put couples in the situation of choosing between careers for both partners or children and one career, with the subsequent decline in living standard due to the fact that only one parent can work while the other must look after the child(ren).

Thus, the obtained results lead to the conclusion that stimulating fertility is not necessarily done through measures aiming directly at increasing the number of births, although this seemed to have some effect, but only on the short-term, but with the help of specific policies that aim at stimulating economic growth and efficiency, as well as enhancing compatibility between work and family. Besides increasing childcare facilities, supporting flexible working hours and facilitating access to the labour market, thus creating a favourable family environment, it is important that the traditional norms regarding the gender roles and the participation of women in the labour force be changed.

Time is a key factor in allowing labour markets to integrate such changes and adapt to the new realities. The traditional rigid institutions of the labour market need to be restructured so as to become more flexible and less competitive with family life and fertility.

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