PRONATALIST POLICY IMPACT ON ROMANIAN PROCREATIVE BEHAVIOUR THROUGHOUT THE 20TH CENTURY

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Abstract

Fertility behaviour is influenced by a wide range of biological, economic, social, demographic and political factors. The present paper aims at analysing how and to what extent do socio-environmental factors influence reproductive behaviour in Romania. The analysis will mainly focus on three generations of women who had already ended their fertile period at the moment of a 2011 specialized survey. The sample comprises over 850 respondents, constituting three age groups: 50-59 years, 60-74 years and 75 years and over. On this sample we analysed the impact of the policy interventions, the influence of family, as well as some socio-economic determinants of the respondents' reproductive behaviour.

Key words: pronatalist policy, reproductive behaviour, logistic regression

JEL Code: J10, J13

Introduction

One factor that influences current fertility levels across Europe is the evolution of fertility after the Second World War. If the countries in the northern and western parts of Europe experienced a strong baby-boom in the period immediately after the war, with fertility declining since 1965, in the Mediterranean countries the demographic transition was a late one, with relatively high fertility levels until the 1970s, followed by a sharp decline. A third group is the one of the former socialist countries (Eastern Europe), which had a chaotic demographic evolution, marked by the persistence of traditionalist behaviours, imposed by sometimes brutal pronatalist policies (Haragus, 2008).

Romania is a famous example for the forced baby-boom caused in the 1960s by such a pronatalist policy. The entering into force of this legislation led to the doubling of fertility, compared to the previous year. The cohorts born since the end of the First World War until the end of the Second one were constrained to increase the number of their offspring by the sudden and radical change of the family planning conditions they benefited from since 1957,

when abortion was made legal. The cohorts of that period are the most numerous ones in the modern demographic history of the country, deforming the age structure of the population and leaving marks on the short, medium and long term. The impact of these cohorts was and still is complex, since the consequences are felt in the health care system, education, labour market, social insurance and in the economic and demographic evolutions of the country.

The evolution of fertility is also influenced to a great extent by the intergenerational transmission of the procreative behaviour, which is a relatively new research area in the field. Its main focus is on the influence of family and kin on reproductive behaviour, taking into account various factors that affect fertility, among which social, economic and cultural ones. There is an extensive body of literature dealing with questions like the influence of family size on future reproductive behaviour, transmission of age at first marriage and first birth from parents to children or influence of genetic and environmental factors on decisions regarding the number of children, in order to gain insight in the complex mechanisms that drive fertility behaviour.

The fertile behavior has a major impact on the Romanian population decline and on its accelerating ageing process. These are the main reasons to analyze the procreative behaviour of 20th century Romanian women, especially the transmission mechanisms, which are important for maintaining fertility levels higher than they would have been in their absence, but also taking into account the tumultuous political, economic and social conditions before the fall of the former regime.

1 Data used

Partly, the objectives of our analysis can be answered with the use of the Generations and Gender Survey data, in which Romania took part in 2005 (first wave). Unfortunately the recordings did not continue for the second wave (2008) of this Survey initiated by the UN (UNECE). Although the data from the first wave represented a great step forward, since data on Romanian fertility is rather scarce, it cannot cover all the aspects that we are interested in.

Thus, in order to see how reproductive behaviour was affected by the changes that occurred during the 20th century, a team from the Polls and Surveys Centre of the Bucharest Academy of Economic Studies developed a questionnaire on the topic of intergenerational transmission of fertility behaviour. The survey was conducted on a non-probability sample of 885 respondents during May 2011 using face-to-face interview. The target population consisted of women aged 50 years and more and the sample was built using quota sampling

by two criteria: age and residence area. According to the first criterion, a third of the respondents were aged at least 75 years and according to the second criterion, at least a third, but no more than a half of the respondents were from rural area.

The questionnaire of the survey comprises 90 questions, grouped in five sections. The first section comprises questions regarding the respondent, such as year of birth, residence area, occupational status, educational level and marital status, children and marriage, as well as some questions about perceptions regarding ideal age for first marriage, first birth, when it is too late to get married and to have children. Also, in this section the respondent is asked the generations that she lived together with during childhood, at maturity and currently.

The next four sections comprise a relatively similar set of questions regarding children, marital status, age at first marriage and birth, occupational status, education level and residence area at the moment of first and last birth. Each one section refers to the respondent's children, siblings, grandchildren and parents.

Based on the questionnaire, we can distinguish between four generations for each respondent and, considering that our respondents are aged 50 years and more, the sample data practically covers the entire 20th century. For this reason, we were able to build three age groups (50-59, 60-74 and 75 years and more). Behind the rationale for such grouping were the socio-economic and political events that took place in Romania since the beginning of the 20th century.

Thus, in the third group we included women born until 1936, which comprises relatively numerous cohorts due to the high fertility rates specific for the Romanian society at that time, but also because of the increased fertility that occurred after the First World War. Most of these cohorts were in their fertile period during 1946 and 1966, when Romania experienced a "natural" baby-boom.

The cohorts born during 1937-1951 comprise the second age group, who had already entered their fertile period in 1966. In this year, with the view to stopping the decreasing fertility trend, the Romanian socialist government adopted the decree number 770 according to which abortion became illegal, thus generating a forced baby-boom.

These cohorts, born between 1952 and 1961, form the third age group. They already began to enter their fertile period and they are the parents of the cohorts born since the 1980s. The abrogation of the decree 770/1966 brought about a plunge in fertility levels, thus causing the cohorts in the last age group to be less numerous than the one in the previous three groups.

Based on the survey data we will analyse the procreative behaviour of the most affected cohorts using political, military and economic landmarks that had a demographic

impact, respectively a natalist one, in order to analyse whether there are major discontinuities in the evolution of the reproductive behaviour throughout the 20th century.

2 A model of the Romanian fertile behaviour

The factors influencing fertility are numerous and various. A realistic model of the reproductive behaviour in Romania throughout the 20th century would necessarily be very complex, including a large number of variables and equations. However, in order to illustrate in what way certain types of factors influenced this behaviour, we chose one variable from each of the types of factors as a proxy.

Usually, reproductive behaviour is analysed based on the **Total Fertility Rate** (most studies use this variable for analysing reproduction; for example, see Muresan, Haragus, Haragus, & Schröder, 2008; Myrskylä, Kohler, & Billari, 2011)). However, this measure is computed at national level and since this sample is not representative for the Romanian population, it cannot be used in this case. Another increasingly used variable recently is **Completed Cohort Fertility** (Frejka & Calot, 2001; Myrskylä, Goldstein, & Cheng, 2012). A measure that could approximate this indicator in my data is the **average birth order**, but the way in which it was computed does only allow for general comparisons, being unsuitable for detailed analysis. The best option for reproductive behaviour that can be used for the sample analysed is **the number of children born by the respondents (Children)**, thus this will be the dependent variable.

The five independent variables chosen are the number of children the respondent's mother had (Children_mother), respondent's age at first birth (Age_birth_1), current education level (Education), residence area (Residence) during adult life (18-49 years) and a dummy indicating if the respondent belongs to the second age group (Age_group).

The first independent variable was chosen as a proxy for family size, since I have shown that the number of siblings influences the number of children to a great extent. Also, I expect the influence of this variable to be a positive one, since it has been shown that children growing up in larger families tend to have large families themselves (Caplescu, 2011; Murphy, 2007; Murphy & Knudsen, 2002; Murphy & Wang, 2001).

The respondent's age at first birth was taken as a proxy for timing factors. Its influence is expected to be a negative one, since postponing births tends to lead to fewer children born (Haragus, 2008; Steenhof & Liefbroer, 2008).

Current education level is the best indicator the data offers for socio-economic status. It is presumed that the more educated the woman is, the better her living conditions and social status, thus the higher the economic and social cost of a child (Haragus, 2008). In a context where the value of children is decreasing, the expected influence of this variable on the number of children a woman has is a negative one (Muresan & Hoem, 2010). The education level is introduced in the model as a categorical variable, where "0" represents "no education" and "6", post-graduate education".

The cultural differences between the rural and urban have old roots. Even as far back as early modern Europe, urban populations tended to have lower fertility than the more conservative, traditionalist rural ones. Nowadays, this is still true. The better living standards, the greater opportunities and a different pattern of time allocation (Caplescu, 2011) are only a few of the factors that contributed to a fastening of the individualisation and secularisation processes in the urban area. We expect, therefore, the urban population to have lower fertility levels than the rural one. When introduced in the model, the dichotomic variable was given the codes "0" for "rural" and "1" for "urban".

The last variable, the dummy indicating whether the respondent belongs to the second age group (code 1) or not (code 0), was used as a proxy for the impact of the socialist policy. I have shown that this age group was most affected by the 1966 regulation and its subsequent tightening, its fertility levels being artificially maintained at higher levels than they would have been in the absence of the policy. We expect thus the number of children born to these women to be somewhat higher, as a result of the policy impact, which would also explain the counterintuitive similarities between the second and the third age groups that were obtained so far in the analysis.

We chose a multiple regression model because we considered the relationship between the dependent and the independent variables linear, the various factors either adding or subtracting from the final number of children. The equation obtained is:

$$\mathbf{Children_i = 3.663 + 0.270 \cdot Age\_group_i - 0.261 \cdot Residence_i - 0.064 \cdot Age\_birth\_1_i + 0.177 \cdot Children\_mother_i - 0.216 \cdot Education_i}$$

The ANOVA shows that the regression model is valid (F=122.403, Sig. F<0.001) and a value of R^2 of 0.419 means that almost 42% in the variation of the final number of children a respondent has is explained by the variations in the five independent variables chosen. All coefficients are significant for α=0.01.

If the influence of no other variable is considered, a respondent would have, on average 3.663 children.

However, the coefficients obtained for all the independent variables are significant, which means they all influence the dependent variable. A positive influence, thus causing the number of children to increase along with their values, results from the effects of the **age group** and that of **number of children the respondent's mother** has. These results support the affirmations made earlier. Thus, if the respondent belongs to the second age group, she will have, on average, almost 0.3 children more than otherwise. Similarly, if she grew up in a large family, she will tend to have more children, every additional sibling adding 0.177 units to the number of children of the respondent.

The other variables have a negative impact on the dependent variable, the number of children decreasing with every additional year in the mean age at first birth, with every further step towards post-graduate education and especially if the respondent lived preponderantly in the rural area when she was aged between 18 and 49 years. These results also support the assumptions made and are in accordance with the literature. Thus, respondents living in the urban area will have on average 0.25 children less than their counterparts living in the rural area, to which a further 0.2 decrease is added with every new education level achieved. If the phenomenon of birth postponement occurs, every 1-year delay of the first birth will lead to a 0.06 decrease in number of children.

However, these variables were used as proxies for large categories of factors with a very complex interplay. Wishing to explain as much as possible the influence of various factors on reproductive behaviour, in the initial model there were other variables included as well, but were eliminated because they proved to have a non-significant (statistically) influence on the number of children a respondent has.

Among them was religious practice, which we believe to be a better proxy for the cultural sphere (regarding traditions, customs and values, for example) than the residence area, since people who practice religion more often tend to be more traditionalist, more conservative in their views than the others. A possible explanation for the small impact detected in this database may emerge from the distribution of the respondents according to this variable: almost half of them declared that they are going to church at least once a week, 40% say they go to church occasionally (mostly at holidays) and 10% declare they don't go to church, but they have a feeling of belonging to a religion. This indicates, on the one hand, a rather high influence of religion in people's lives and, on the other hand, a fairly uniform one in fertility related issues.

Additional information, this time from the area of family influence on fertility, might have emerged from the living arrangements of the respondent during childhood and maturity, namely from the kin with whom they shared the dwelling. Besides the already explored way in which family size influences fertility, living in extended families might also lead to larger families. In these types of living arrangements responsibilities are shared among more members of the family and usually there are more resources as well. Thus, living with grandparents during childhood or with parents during maturity may stimulate birth by sharing the responsibility for rearing children and taking care of the household among more women. In Romania gender equality is still reduced, being rather the exception than the rule. On the other hand, increased participation on the labour market or in education requires the redistribution in the time allocation of women for various tasks.

Nevertheless, these two variables proved to have little or no impact on the fertility of this sample. Here, too, the explanations may vary, depending on the perspective, from individualisation and shifting towards the nuclear family type to emancipation of women or urbanization.

The trends underlined by the model generally follow those reported in Western Europe. Family size is an important factor in determining fertility levels and among the few with a positive impact. The residence area and family formation timing have been reported to influence negatively fertility as early as the 16th and 17th centuries (Livi Bacci, 2000) and the same is true for education in the 20th century (Spéder, 2006).

The unique feature of Romania with regard to 20th century fertility is the coercive pronatalist policy of 1966, which influenced fertility positively, in the sense of artificially increasing its level. The result was a weaker influence of the genetic factors (general health, natural ability to reproduce, genetic conditions etc.) and a stronger influence of environmental factors (education, living standard, occupational status etc.), which limited their reproductive choices (Kohler et al., 1999).

Conclusions

Using a sample from a specialised survey on the intergenerational transmission of the reproductive behaviour that took place in 2011, we analysed the impact of the policy interventions, the influence of family, as well as the socio-economic determinants of the respondents' reproductive behaviour. The data allow for an analysis of reproductive behaviour throughout the 20th century.

Such an analysis must take into account a few factors that will influence its evolution, such as policies and intrinsic mechanism of the reproductive behaviour, which may be either biologically or socially determined (Kohler et al., 1999). During the 20th century, there were various political, economic and military landmarks that influenced fertility in both in Europe and in Romania causing more or less abrupt discontinuities in its evolution.

According to previous research (Ghetau, 1997; Haragus, 2008), Romania's evolution with regard to fertility was in accordance with the general trends in Europe until the late 1960s. The increases generated by the need to recuperate losses of the two world wars and the subsequent declining fertility, accentuated by legalisation of the abortion, were, allowing for normal variations in rhythm and pace, similar to the ones in other parts of Europe. However, the adoption of the famous 1966 coercive pronatalist policy, isolated Romania from the influence of western, and even central European countries, forcing fertility to rise much above the "natural" level and maintaining this increased value through artificial, coercive means. The effects of this legislation caused and continue to lead to major disequilibria in many domains, ranging from personal lives of the individuals to structural problems of the economy.

After the abrogation of the legislation at the beginning of the 1990s, fertility levels plunged to below replacement levels, reaching 1.3 children per woman in the 2000s. This places Romania in the same group of countries as Germany, Hungary, Moldova, Portugal and Slovakia.

There is a lot of debate in the literature on the differences between the desired and the actual number of children and previous analysis (Caplescu, 2011) shows that a series of factors of socio-economic and cultural nature are the ones determining most of these differences. The actual number of children is a more valuable indicator, since it may give important information about future labour force, future consumer market and other socio-economic indicators. Therefore, an analysis of the factors that determine it was considered necessary. The results indicate a strong positive effect of the socialist policy on the number of children, but also a considerable influence of family. As expected, the urban area tends to have a negative influence on the number of children, and so do education and age at first birth. These results generally follow the trends in Western Europe, the only distinctive feature of Romanian fertility being the pronatalist policy with its long term effects.

In conclusion, Romania entered the 20th century in phase with general European demographic trends and it continued to go along the same path during the first half of the century. The temporary isolation from Western European influences that occurred during

communist rule had the effect of delaying rather than modifying its course with regard to fertility, but left the country profoundly marked by the former regime's attempts to generate growth. However, it seems that the realignment tendency is strong. This conclusion is important for policy makers since, allowing for some specificities due to the legacy of the former regime, it may be taken advantage of the advances made in Western Europe by developing a well-designed mechanism to allow the country to evolve at a much lower cost.

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