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Insights from Georgia

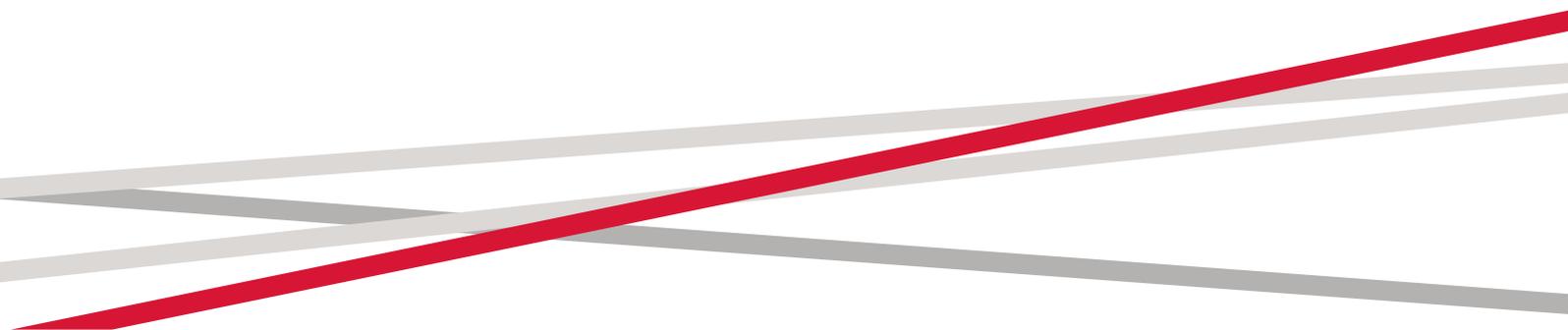
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Economics of Childbearing and Pronatalist Policies

Lev Lvovskiy, BEROC

What is behind Georgia's recovering fertility rates?

Yaroslava Babych, ISET-PI



Abstract

Economics of Childbearing and Pronatalist Policies

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The brief opens a series of FROGEE Policy Briefs aimed at providing overviews and the popularization of economic research related to gender equality issues. The current brief introduces the general rationale behind fertility decisions and policy interventions. It summarizes the economic literature on the effects of different types of policy interventions on enhancing childbearing. A well-documented phenomenon in developed countries is that fertility declines with income levels and as countries become richer, fertility rates fall over time. This negative fertility-income relationship is mainly due to two distinct trade-offs faced by individuals. The quality-quantity trade-off manifests itself in the tendency of well-off individuals to choose to invest more in a child's quality and therefore forgo quantity. Another trade-off arises from the fact that raising children takes time, which confronts parenthood with people's career opportunities. The brief continues by summarizing economic research on the effectiveness of various pronatalist policies. It appears that the most effective ones are exactly those which aim at the elimination of the discussed trade-offs. In particular, policies which are able to free the time of potential parents or combine parenthood with career, appear to be most promising.

What is behind Georgia's recovering fertility rates?

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Georgia, a country of 3.7 million skirting the border between Europe and Asia, shares many features of a typical post-Soviet transition economy. What makes Georgia unusual is that having gone through more than its fair share of economic and political crises since the 1990s, the country managed to achieve a strong recovery in the number of births per woman, and has been enjoying some of the highest fertility rates among the transition economies of Eastern Europe and the South Caucasus for the last 10 years. Is this effect purely the result of an economic recovery? Is it due to specific policy interventions? Or is this just a temporary demographic phenomenon? The review of existing evidence suggests that economic factors were the primary driving force behind the country's strong fertility recovery since 2002. Other demographic factors or interventions (i.e. the "Patriarch effect") are likely to have been insignificant.



Economics of Childbearing and Pronatalist Policies

Introduction to FROGEE policy briefs

FROGEE Policy Briefs is a special series aimed at providing overviews and the popularization of economic research related to gender equality issues. Debates around policies related to gender equality are often highly politicized. We believe that using arguments derived from the most up to date research-based knowledge would help us build a more fruitful discussion of policy proposals and in the end achieve better outcomes. The aim of the briefs is to improve the understanding of research-based arguments and their implications, by covering the key theories and the most important findings in areas of special interest to the current debate. The briefs start with short general overviews of a given theme, which are followed by a presentation of country-specific contexts, specific policy challenges, implemented reforms and a discussion of other policy options.

Introduction to Economics of Childbearing

We start our series with childbearing, a topic that is tightly related to gender issues and an area with a high degree of public policy intervention. From an economic point of view, there are several potential reasons why public policy interventions concerning fertility may be beneficial for society and why – when left without support – decisions of parents might be suboptimal from the social point of view. In order to better understand these, one must first consider the intuition behind the theoretical economic approach to family relations in general and to fertility decisions in particular,

much of which draws on the seminal contributions of Gary Becker (Becker & Lewis 1973; Becker & Tomes 1976).

In Economics, goods are any real objects that satisfy people's needs and typically come at some cost. Becker's approach to the family extends this reasoning to human relations, and presents decisions on partnership, divorce and family formation in the context of 'economic' trade-offs between costs and benefits. Since having children is associated with considerable costs (both in terms of money and time) as well as gains in a number of dimensions, the decision to have a child can be formulated as an economic decision. However, viewed from this perspective, the choice to have children turns out to be special in several dimensions.

Negative Income-Fertility Relationship and Low Fertility

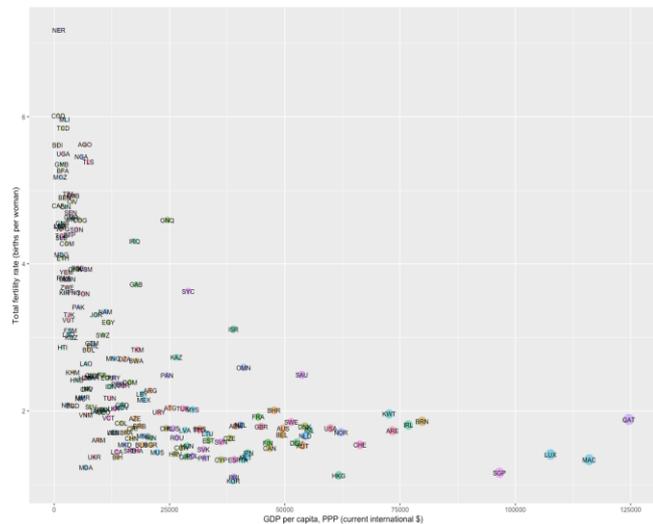
One of the most robust observations regarding fertility is that – in contrast to many other types of expenditures - there is a strong negative association between earnings and number of children (Figure 1). This negative income-fertility relationship has been observed in every developed nation, both when examined over time in relation to income growth and when looked at in a cross-country comparisons (see Jones et al. 2011). Figure 2 shows this relationship in a broad macro perspective: historically, as the world's per capita GDP has grown fertility rates have tended to decline.

There are several potential drivers behind the above relationship. Two of the most established explanations are opportunity cost and quality-quantity trade-off, and they relate to several



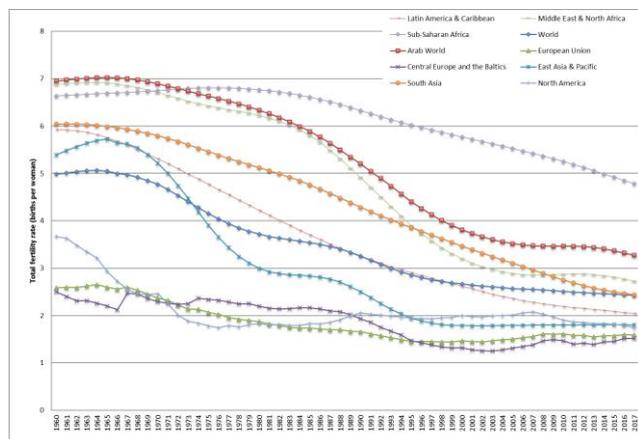
special features of the costs and benefits of having a child and the very nature of the family.

Figure 1. The relationship between total fertility rate and GDP per capita



Source: World Bank.

Figure 2. Trends in total fertility rate by region, 1950-2050.



Source: World Bank.

Money and Time Costs

A rather unique property of family formation is that costs related to childbearing are expressed both in terms of money and time. Because of the latter, high-earning parents face higher opportunity costs of the time necessary to raise a child. This might not only contribute to the aforementioned negative fertility-income

relationship, but has also been shown as one of the main reasons behind low fertility in developed countries. One of the most common policies used to increase fertility is money transfers which come in the form of family allowances, baby bonuses or tax credits. According to the UN Population Facts, at least 96% of developed nations have this type of policy. OECD countries, on average, spend around 4% of their GDP on this kind of assistance and the average effect of such interventions has been estimated to increase the total fertility rate (TFR) by 0.08 – 0.35 (Luci-Greulich & Thevenon 2011). The main reason why one needs to spend a lot of money to gain a relatively small increase in TFR is that low fertility is a «first world» problem, i.e. most of the targeted individuals are not bounded by the monetary costs of a child.

Policies that take the time-cost of children into account promise a higher potential effect in developed countries. For example, Raute (2019) uses German data to find an 18% increase in fertility among women with earnings above the median after the introduction of earnings-dependent paid maternity leave policy.

Quality — Quantity Trade-off

In economics, the idea that education, health and other factors increase human productivity and potential is conceptualized in a notion of “quality of human capital”. As the return on investment in human capital rises, parents may choose to have fewer children and focus their time and financial ‘investments’ in their quality. Some of the most convincing evidence on the strength of the quality-quantity trade-off was revealed using the data on twin births and on family sizes by Hanushek (1992) and Li et al. (2008).



Cultural Norms

Relatively recent research on the determinants of fertility has documented the substantial and persistent influence of cultural norms on fertility. This is reflected in the variation of fertility levels within countries among people of similar financial status, but coming from different cultural backgrounds. For example fertility levels among immigrants in the developed world tend to resemble those in their countries of origin (see, e.g. Beach & Hanlon 2019, Families and Societies 2015), and while cultural norms change and can also be affected by the policy environment (Bassi & Rasul 2017), there tends to be a substantial degree of time-dependence in how norms evolve and adjust.

Internal Costs and External Benefits

The last special feature of childbearing from an economic perspective is that although most of the costs in terms of time and money related to children are borne by parents, a large portion of future economic gains of an additional person is external to the family and benefits the wider society. When an adult enters the labor force, begins to produce goods and services for other people and pays taxes to the government, his or her parents would not be able to capture any significant portion of these benefits (Schoonbroodt & Tertilt 2014). From an economic perspective this suggests that the social value of children is higher than the private (parental) one. This situation is one of the main arguments for public policy intervention with regard to fertility. Whenever social benefits outweigh private benefits, subsidizing private choices may result in overall welfare improvements.

Fertility Enhancing Policies: What Works and What Doesn't?

From the perspective of encouraging fertility, there is a wide range of options available to policymakers. On the one hand paid parental leave and subsidized childcare can mitigate the conflict between career and parenthood, while the introduction of paternal leave attempts at balancing out the time out of work between the two parents and at changing their allocation of time to childcare. On the other hand, child-related money transfers are aimed at reducing financial constraints on families who limit or postpone fertility because of their financial status. In practice it is often hard to measure the effects of particular fertility-enhancing policies due to the lack of data and an absence of specific policy implementation designs, which would allow policy evaluation. However, there is evidence that fertility-enhancing policies can be successful in stimulating fertility. Luci-Greulich & Thevenon (2011) find that the most effective cash transfers are those targeted at the youngest children (aged 0-3), while those that are paid out around the birth appear to be less efficient. A number of studies prove the positive impact of transfers to families with children on fertility rates (d'Addio & d'Ercole 2005, Ermisch 1998, Milligan 2005, Whittington 1992, Whittington et al. 1990). Developments over the recent decades in Sweden are often used as an example of a successful family focused package, although given the multitude of different schemes running at the same time it is difficult to disentangle their specific implications (see Björklund 2006 for the evidence from Swedish policy reforms and Luci-Greulich & Thévenon



2013 for a broader overview of the existing research on fertility-enhancing policies).

Kalwij (2010) and Raute (2019) focus their attention on policies which alleviate career – parenthood trade-offs. Raute (2019) finds especially large effects of the adequate compensation of forgone earnings of high earning women (the author also contributes a comprehensive literature review of studies on the effects of alleviating the opportunity cost of children). Doepke and Kindermann (2016) complement these findings by providing evidence that fertility is especially responsive to policies that specifically reduce the childcare burden for women.

The evidence on the effects on fertility of another popular type of family policy, maternity leave, is less clear. Since most of the developed nations nowadays do have paid maternity leave, it is hard to measure the effect of its availability on the decision to have children. However, different durations of maternity leave across countries and changes in those durations allow economists to draw some conclusions. Although some researchers do find a positive effect of maternity leave duration (Adserà 2004), others fail to support this conclusion using different sources of data and experimental designs (d’Addio and d’Ercole 2005, Olivetti and Petrongolo 2017).

Concluding Remarks

A better understanding of the economic approach towards family formation and fertility can be helpful in thinking of a re-design of family-focused policy packages. It is beyond the scope of this brief to provide a full overview of the extensive body of economics research on this

topic, but the evidence tends to suggest that a set of successful policy tools to encourage fertility is available. The basic concepts presented here can hopefully serve as background to a systematic and evidence-based discussion on public policy in this field. It should be noted that since parenthood is one of the most important choices in the life of many people, it is inherently related to many other individual choices and outcomes. Therefore, any policy aimed at increasing fertility will inevitably affect other important dimensions such as income inequality, taxation, gender equality, health and child development, among others. This means that any public intervention should always carefully consider its potential positive and negative side effects.

What is behind Georgia’s recovering fertility rates?

Introduction

Like many transition economies of Eastern and Central Europe, Georgia has experienced the problem of a declining, or at least non-increasing population in the recent decade. And yet, Georgia stands among the countries in the region with the highest fertility rate not only in 2017, but also in every year since 2007.

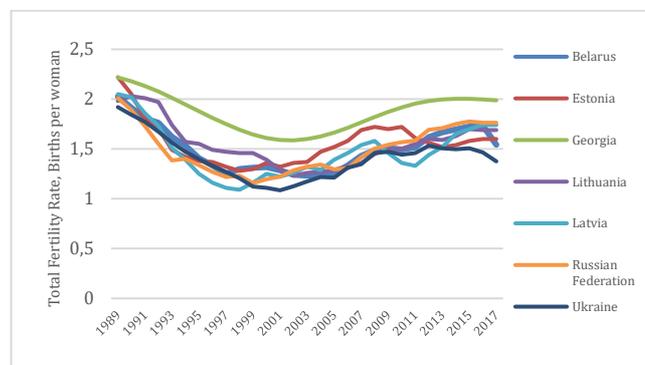
The evolution of the TFR (Total fertility rate, defined as number of births per woman) in Georgia has roughly followed the dip-and-recovery pattern of the “European CIS” countries: Belarus, Ukraine, Lithuania, Latvia and the Russian Federation.

These countries, after reaching a TFR peak in 1987, experienced a very sharp decline, followed by



recovery to a yet lower level of fertility than in the pre-transition period.

Figure 1. Total fertility rates in selected CIS countries



Source: WDI Data file, retrieved on June 17, 2019.

The post-transition dip in Georgia reached its lowest point of 1.58 TFR in 2002. Since then, the country's fertility recovered to "only" 2.0 in 2014 and 2015. Still, this recovery can be considered an achievement, given that Georgia's counterparts in the South Caucasus - Azerbaijan and Armenia - did not experience a meaningful recovery of their TFR at all. Both Azerbaijan and Armenia were coming off high fertility peaks in the 1960s (5.9 and 4.7 TFR respectively). Nowadays, these countries experience some of the lowest national fertility rates in more than 50 years (1.9 for Azerbaijan and 1.6 for Armenia).

Georgia's fertility pattern calls for a closer look, since the country does not quite conform to the textbook "higher income-lower fertility" pattern. In fact, lower incomes (the 1990s economic shock) translated into lower birth rates, and once the incomes started to recover, the birth rates went up - a fairly typical pattern among transition countries. What was unusual about Georgia, is that the country's birth rates started to recover under labor policies that could be described as investor or business-friendly, rather than pro-

natal (Pataraiia, 2016). This was not the case for other transition countries like Russia, Ukraine, and Belarus, which enjoyed fertility recoveries supported by pro-natal policies of the respective governments (Frejka & Gietel-Basten, 2016).

Hypotheses behind the fertility rate recovery in Georgia

In this context, what can be said about Georgia's fertility rate progress between 2002 and 2014? The UNFPA Population Report for Georgia (Hakkert, 2017) discusses several hypotheses to explain the TFR recovery in the country:

- 1) Recovery of incomes per capita after the collapse of the 1990s.
- 2) The "Patriarch effect" hypothesis.
- 3) The tempo effect of postponing fertility.

Recovery of income per capita translated into higher fertility rates

The rationale behind this hypothesis is that the economic collapse of the 1990s put a serious strain on family finances in the transition economies. Less resources available for the entire family meant that the couples either chose to have less children or decided to postpone childbearing. Once incomes started to recover, the fertility rates were edging up, returning to more normal levels. The hypothesis that fertility recovery has been driven by economic recovery does not contradict the traditional textbook association between higher incomes and lower fertility trend in the world. Generally, the negative income-fertility association is driven largely by the changing structure of world economies as they develop (in particular the transition from rural to urban societies). But by the 1990s Georgia had already made the transition to become an urban society,



albeit with lower urbanization rates than in Russia, Ukraine, and even Armenia.

An example of successful intervention? - examining the Patriarch effect

In 2007 The Patriarch of Georgia's Orthodox Church, Ilia II, announced that he will personally baptize every third-or-higher birth order child of a married couple in Georgia. Since the share of Georgia's population that is Orthodox is very high, around 83% in 2014 (World Factbook, 2019), and the Church is one of the most influential and respected institutions in the country, one would expect a significant impact of the Patriarch's intervention on fertility rates. In fact, Georgia has seen a significant spike in the number of births in 2008, the year after the Patriarch's announcement. The number of births went up from about 49,000 in 2007 to about 57,000 in 2008 and 63,000 in 2009 (Lanchava, 2014). Was the spike due to the effect of the Patriarch's intervention?

Some researchers argue that the Patriarch effect was insignificant. Lanchava (2014) carried out a study using a difference-in-difference model (with the treatment group being Georgians, and control group non-Orthodox minorities in Georgia). Crucially, the time period he considered was 2008-2010. The model found no treatment effect of the Patriarch's announcement, since the non-Orthodox minorities' birth rates also increased during this period. The limitation of the study was the time period under consideration (2008-2010), whereas the baptism "intervention" has continued since then. It would be crucial to examine the data since 2010 in order to determine whether the Patriarch's announcement produced a measurable effect.

On the one hand, what may support the Patriarch effect hypothesis is that the first-order births in Georgia actually declined since 2010, while 2nd and higher order birth continued to increase (Geostat, 2019a). Moreover, one has to note that legitimate births (birth to married couples, the beneficiaries of the Patriarch's announcement) increased and stayed high, while the number of illegitimate births declined since 2007 (Geostat, 2019b).

On the other hand, one cannot rule out that the increase in legitimate and 3rd and higher order births is due simply to the improvement of economic conditions. One should look at the pattern of overall births, including 3rd or higher order births among the non-Orthodox ethnic minorities in Georgia since 2010. If one would find patterns that are roughly similar to the general population or among the Orthodox Georgians, then one could claim that the Patriarch effect is simply due to the improving economy. While this kind of investigation is beyond the scope of this policy brief, taking a quick look at the pattern of births in some of the municipalities where ethnic minorities live most compactly (for example in Marneuli, where the share of ethnic Azeris is 83.7% according to the 2014 Census) we would see roughly the same pattern of overall births as in the rest of Georgia. Thus, the question of the Patriarch effect on birth rates has not yet been settled conclusively.

Does "tempo effect" explain increasing birth rates?

According to this hypothesis, birth rates may first decline and then increase due to the postponing of childbearing by younger women. At the time



young women decide to postpone birth, the birth rates would naturally drop. However, once they start having children later, the birth rates would pick up. This type of effect has had a significant impact on birth rates in Albania, Moldova and Turkey (Hakkert, 2017). However, the tempo effect would imply that at the point of the recovery the mean age of childbearing women increases significantly. In Georgia this is not the case. The mean age of childbearing women increased from 25.7 in 1994 to just 27.1 in 2014 (Hakkert, 2017).

Conclusion

To summarize, the evidence points towards primarily economic factors behind the recovery of birth rates in Georgia since 2002. Other demographic factors or interventions are likely to have been insignificant, although more research is needed to confirm or reject the “Patriarch effect” hypothesis. The case of Georgia is particularly interesting, because it contributes to the debate on whether policy interventions (such as one-time cash transfers to mothers) are effective in stimulating birth rates. Georgia is an interesting case study among the transition economies, because the revival of economic growth since 2004 was accompanied by mostly pro-business labor policies, and there were no decidedly pro-natal policy interventions by the government, as opposed to the case in Ukraine and Russia.

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About the authors

Lev Lvovskiy

Belarusian Economic Research and Outreach Center (BEROC)

Lvovskiy@beroc.by

www.eng.beroc.by

Lev Lvovskiy is a Senior Research Fellow at BEROC. He received his Bachelor's degree from Perm State Technical University in 2010, and obtained his Ph.D. in Economics from the University of Iowa in 2017.

Yaroslava Babych

ISET Policy Institute

y.babych@iset.ge

www.iset.ge

Yaroslava (Yasya) Babych studied at the University of Kyiv-Mohyla Academy in Kyiv. In 2000 she received a Bachelor of Arts degree from Franklin and Marshall College with a double major in Economics and in Philosophy. She graduated with Ph.D. in Economics from the George Washington University in Washington, DC in 2011. At ISET she teaches first and second year courses in Macroeconomics and Open Economy Macro and is also leading a Macroeconomic Policy Research Center.

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