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THE INFLUENCE OF DEMOGRAPHIC FACTORS ON THE ECONOMIC DEVELOPMENT OF THE AZERBAIJAN: THE INTERCONNECTION PROBLEM

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Abstract

Demographic factors have sometimes occupied center-stage in the discussion of the sources of economic growth. In the 18th century, Thomas Malthus made the pessimistic forecast that GDP growth per capita would fall due to a continued rapid increase in world population. There is a straightforward accounting relationship when identifying the sources of economic growth: Growth Rate of GDP = Growth Rate of Population + Growth Rate of GDP per capita, where GDP per capita is simply GDP divided by population. This article examines the interconnection between economic development and the demographic policy of Azerbaijan. The article analyzes various approaches of the impact of demographic factors on the economic development of a country. The following demographic factors have been identified and described as significant for the economic development: fertility dynamics, mortality dynamics, population size and gender and age structure.

Key words

demographic policy, economic development, demographic situation, demographic processes, fertility, mortality, Azerbaijan.

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1. Introduction

Currently, most researchers support the approach that human capital is the basis of economic development. The characterization of modeling the relationship between demographic factors and economic development has been challenged and debated since the time of T.R. Malthus (1798). It has portrayed the influential dimension of the demographic factor on the economic growth by defining the Malthusian stagnation mechanism. Nevertheless, this has changed in recent year due to the changeable idiosyncratic of demographic factors, the economic situation, or even the changeable modern concepts. Based on this way of analyzing, a number of research streams have been constructed as a summarized framework for the related theories which includes:

 the traditional "Malthusian regime" that focused on the stagnation from the relationship between the controlling process of demographic transition (population growth) and the food issue;

- the "post-Malthusian" state which implied a slight impact of greater population on growth;
- the "modern approach" postulates the steady growth mechanism with a group of factors that impact growth.

Demographic factors have sometimes occupied center-stage in the discussion of the sources of economic growth. In the 18th century, Thomas Malthus made the pessimistic forecast that GDP growth per capita would fall due to a continued rapid increase in world population. There is a straightforward accounting relationship when identifying the sources of economic growth: Growth Rate of GDP = Growth Rate of Population + Growth Rate of GDP per capita, where GDP per capita is simply GDP divided by population. The Cobb-Douglas relationship provides another way of looking at the same idea: change in economic output is related to the change in capital stock, change in labor stock, and change in the state of technology (Van de Kaa, 2003).

Human development is conditioned by the sustainable socio-economic development of the country. The concept of human development, developed by UN experts and introduced in 1990, emphasizes the main and only goal of sustainable development – the well-being of the population. At the same time, ensuring the welfare of the population on the path of socio-economic development is considered a key goal for any state. Thus, human development and socio-economic development are interrelated and interdependent.

The degree has been discussed for years by social scientists and economists. As a result of discussions and debates on this issue, three views have been formulated:

- 1. Population growth limits socio-economic development.
- 2. Population growth promotes socio-economic development.
- 3. There is no correlation between population growth and socio-economic development.

Proponents of each point of view present a number of arguments in favor of their point of view. Despite the different approaches, the majority of theorists and practitioners discuss the relationship between economic growth and demographic development.

The economic needs and behavior of the population differ at different stages of life, and changes in the age and sex structure of the population can have a significant impact on the overall economic activity of the country. It is known that children and young people require investment in health and education, provide production and savings for the middle-aged population, and the older generation needs medical care and social security, especially pensions (Ravenstein, 1889; Ryder, 1965).

Due to the needs of this contingent of the population, low growth rates of economic development will be observed in that period. If the share of the older generation in the country is high, the age structure will have the same retarding effect on the country's economic development. The working age population below and above represents a nonproductive class and requires a large amount of resources to maintain, which slows down the pace of economic development. In turn, the share of the population of working age is high.

A "demographic dividend" is created in countries by effectively using the existing labor potential. The process of "demographic transition" in economically developed countries mostly finished. This process is characterized by high birth and low mortality rates. In the early stages of the demographic transition, the population in the 0-14 age group decreases during the decline in birth rates. During this period, the labor force (age group 15–64) is growing at a higher rate than the protected population groups (age groups 0-14 and 65+) over a period of time, and the demographic burden is declining, which provides resources for investment in economic development and social security. The income of the population is growing faster. The effect of the said dividend may cover a period of more than fifty years. It is known that low birth rates lead to a slowdown in the growth rate of the labor force. A decrease in mortality and an increase in life expectancy lead to an increase in the number of older generations and their share (aging of the population). Given the changes in the age structure, the growth rate of per capita income in the country is declining, and the dividends previously received are beginning to have the opposite significance (Ravenstein, 1876).

On the other hand, there are conditions for the country to receive a second demographic dividend. One of the main tasks for the able-bodied population in the upper age groups is to meet their needs after retirement. Thus, this contingent, which does not have full confidence that it will be provided by the family or the state as it approaches retirement age, has a strong incentive to accumulate financial assets.

Thus, the first dividend brings temporary benefits to the country, while the second dividend ensures sustainable development by converting these benefits into larger assets. It should be noted that the results could be expected primarily as a result of consistent socio-economic policy in the country. The duration of the demographic dividend is not a complete guarantee, but only an opportunity to improve the living standards of the population. The amount of dividends for each age of the population depends on the volume of production and consumption in the group.

The level of labor productivity of young people and older age groups has a serious impact, among other factors. The productivity of young people primarily depends on policy measures that provide opportunities for young parents to work, as well as decisions made in the field of education and the effectiveness of the practice in the field of youth employment in the country. At the same time, the number of children born in young families and the time interval between children have a certain effect on the parents' productivity. At the same time, the level of health of the population, disability policy, tax incentives and restrictions, in particular the structure of pensions may change the level of labor productivity in the older age groups. The realization of the second dividend mainly depends on how the society supports the elderly citizens. In many countries, senior citizens are supported by their families and the state, but they also depend on the funds they have accumulated over the years. These funds include pension, personal cash reserves and housing. As the population ages, the burden of support for families and the state increases relative to GDP. This is a serious concern in many countries. If the policy encourages employees to create savings for the post-retirement period, the second dividend could significantly increase the amount of capital relative to GDP for the vast majority of middle-aged workers (Mason, 2007).

Ensuring the sustainability of the country's socioeconomic development in modern times requires the solution of the problems arising from the aging of the population. With the increase in the number of the elderly, the increase in social transfers allocated by the state reduces the total state assets and leads to a decrease in the second demographic dividend. At the same time, if workers are supported to save money and create a pension fund, the aging of the population will affect every employee.

This can lead to an increase in the amount of capital calculated and per capita income. Thus, the creation of reliable financial systems will stimulate the population to create their own financial future and realize the potential of economic growth (Van de Kaa, 2003).

2. Data and methods

To carry out the research, scientific studies in the field of demographic development were used for analysis (Afandiyev, Nagiyev, 2012; Əfəndiyev, Nağıyev, 2012). Data in this area are the main source of statistical data published by Azərbaycan Dövlət Statistika Kometəsi (the State Statistics Committee of Azerbaijan) and foreign literature (O'Nelli et al., 2001). Data on the impact of demographic factors on economic development were collected, and reports were prepared. These reports have been widely used.

The analysis in the article is carried out with the help of statistics, historical-geographical study of areas, mathematical analysis, and methods of comparative analysis.

3. Research

According to this approach, demographic changes lead to institutional, political and technical changes. Demographic growth can contribute to economic development, despite the subjective factors of a political and natural situation. Thus, in consistence with modern views, demographic processes are a determining factor in economic development. It should be noted that both the dynamics of fertility, mortality and population size and changes in the age and gender structure of the population are the basic demographic factors for the development of the economy.

One of the main trends of the social-economic policy realized in the Republic of Azerbaijan during last years is the development of labor market and advantageous use of labor force. Due to reforms implemented in the country caused by changing of the fundamental quality in the country economy, dynamic economic development were provided. Relevant measures were taken towards the regional economic development, increasing social welfare and standard of living of the population in the regions and economy of the country especially carrying out of development of non-oil sector. To providing employment for the population, new jobs, enterprises, infrastructural objects, etc. are created.

In 2018, the number of economically active population increased by 753.0 thousand persons accounting for 5133.1 thousand persons compared to 2005, of which 4879.3 thousand persons are engaged in various fields of economic activity and 253.8 thousand persons are unemployed.

The implementation of reforms in economy, especially privatization of enterprises and organizations in the state property were the reasons for significant changes in the distribution of employment in state and non-state sectors. Therefore, if in 2005 the share of persons employed in the state sector made 30.3% of the total number of persons engaged

in economy, then in 2018 this indicator decreased to 23.7%, and the number of persons employed in the non-state sector increased 1.3 times during this period (Afandiyev, Nagiyev, 2012; Azərbaycan...).

In 2018, 2487.5 thousand persons or 51.0% of the total number of employed population in economy were engaged in production fields (agriculture and fishing, industry, construction), and number of persons employed in the field of services was 2391.8 thousand persons, which made 49.0% of the employed population. 1551.7 thousand persons or 31.8% of the total number of employed population in economy in 2018 was the share of employees workers. The majority of employees were aggregated in large and medium enterprises.

The number of persons who received the official unemployment status in the country made 20.1 thousand at the beginning of January 2019. During last years, the share of woman among unemployed persons decreased making up 37.2% in 2018, as compared to 51.6% in 2005 (Nagiyev, 2008; Azərbaycan...).

During 2005–2018 average monthly nominal wages and salaries of employees increased 4 times making 544.6 manat.

One of the primary factors in economic development is gender data on labor. According to the obtained information, almost 50% of economically active population are men, and approximately half of the economically active population are women. Although among employed and unemployed people male employees are in the dominant position, with respect to the official unemployment status, the number of women is higher than of men (Table 1).

The age structure of the population determines an economically important indicator, namely the demographic load coefficient, which determines the structure of workers and dependants in the population of a country or region. The demographic load is usually allocated per 1000 population in the working age. At the same time, the load from children age to old age differs. The sum of loads of children and the elderly forms the overall demographic load. It should be noted that this indicator is essentially conditional because it does not take into account certain categories of the working population.

The change in the age structure of the population of Azerbaijan has a significant impact on the ratio of different age groups, which leads to significant economic consequences. For example, an increase in average life expectancy negatively affects the ability of women to continue the race and give birth to children, so this defines the increase in the proportion of dependants in the total number of working-age people. A decrease in the family size can also lead to an increase in the employment rate of women, which contributes to a decrease in the birth rate and, as a consequence, an increase in the demographic load (Avdeev, 2015).

In the early 1990s, Azerbaijan had the opportunity to obtain the so-called "demographic dividend", and total demographic load factor began to decline. However, this occurred mainly due to a decrease in a load of children. But, in general, Azerbaijan was under conditions of an insignificantly increasing

| | 2005 | 2010 | 2014 | 2015 | 2016 | 2017 | 2018 |
|--|--------|--------|--------|--------|--------|--------|--------|
| Economically active population ¹⁾ | 4380.1 | 4587.4 | 4840.7 | 4915.3 | 5012.7 | 5073.8 | 5133.1 |
| women | 2111.3 | 2257.7 | 2365.0 | 2404.5 | 2439.5 | 2464.8 | 2495.7 |
| men | 2268.8 | 2329.7 | 2475.7 | 2510.8 | 2573.2 | 2609.0 | 2637.4 |
| Employed persons | 4062.3 | 4329.1 | 4602.9 | 4671.6 | 4759.9 | 4822.1 | 4879.3 |
| women | 1957.6 | 2101.7 | 2226.8 | 2263.4 | 2294.2 | 2319.3 | 2349.9 |
| men | 2104.7 | 2227.4 | 2376.1 | 2408.2 | 2465.7 | 2502.8 | 2529.4 |
| Unemployed persons ²⁾ | 317.8 | 258.3 | 237.8 | 243.7 | 252.8 | 251.7 | 253.8 |
| women | 153.7 | 156.0 | 138.2 | 141.1 | 145.3 | 145.5 | 145.8 |
| men | 164.1 | 102.3 | 99.6 | 102.6 | 107.5 | 106.2 | 108.0 |
| Persons who received the official | | | | | | | |
| unemployment status | 56.3 | 39.0 | 28.7 | 28.9 | 33.0 | 38.5 | 20.1 |
| women | 29.1 | 17.0 | 11.3 | 11.2 | 12.6 | 14.0 | 7.5 |
| men | 27.2 | 22.0 | 17.4 | 17.7 | 20.4 | 24.5 | 12.6 |

Tab. 1. Employment and unemployment rate according to genders in Azerbaijan (thousand persons)

¹⁾ Calculated taking into account total unemployed during 2005-2018 based on İnternational Labor Organization's methodology.

²⁾ Based on İnternational Labor Organization's methodology (including unemployed persons receiving official status). Source: Azərbaycan Dövlət Statistika Kometəsi. load until 2015. In the future, a steady growth of this indicator is expected. According to the data of the demographic forecast until 2030, presented by the State Statistics of Azerbaijan, the coefficient of the demographic load will increase with all variants of the forecast (Nağıyev, 2007; Azərbaycan...).

It is necessary to pay attention to an extremely important fact: the load will increase the faster, the more favorable the demographic indicators will be, i.e. the more children will be born, the lower the mortality will be. As long as the labor market is able to "absorb" the labor force, labor productivity will increase, which creates dividends of economic growth that contribute to the growth of savings and investments. In particular, those families that have a low number of kids have the opportunity to allocate a large number of funds for health and education of children, which contributes to the growth of human capital and increases labor productivity (Table 2).

Tab. 2. Demographic load factor (disable-bodied per 1000 able-bodied persons)

| year | low forecast | mean forecast | high forecast |
|------|--------------|------------------|------------------|
| 2016 | 745 | 760 | 775 |
| 2018 | 767 | 782 | 797 |
| 2020 | 788 | 803 | 818 |
| 2022 | 808 | 823 | 838 |
| 2024 | 827 | 842 | 857 |
| 2026 | 845 | 860 | 875 |
| 2028 | 862 | 877 | 892 |
| 2030 | 878 | 893 | 908 |

Source: Azərbaycan Dövlət Statistika Kometəsi.

Different variants of demographic growth and trends of demographic changes are the most important factors in the development of the economy of a country. In those phases where the number of the youngest and oldest population groups is maximum, economic growth slows down. The implementation of dividends occurs in the middle phase of the demographic transition. Reducing the number of children and the level of fertility increases the coefficient of the demographic load. However, the effect of demographic dividends by the economy and society is experienced automatically. Stimulating the flexibility of the labor market, investments and savings, as well as the payment of education and medical benefits is a major factor of high productivity. In line with this, the change in the structure of the sex-age pyramid that is determined by the decrease in mortality and fertility rates is represented as a factor contributing to economic growth. In line with this, the change in

the structure of the sex-age pyramid that is determined by a decrease in mortality and fertility rates is represented as a factor contributing to economic growth. Poverty reduction is promoted not only by economic development but also by reduced fertility, which leads to a redistribution of consumption in favor of the poor and makes it possible to increase the incomes of the poor through the women involved in the economy. Currently, higher and secondary vocational education has acquired mass character, especially among women, who occupy a significant segment of the market of Azerbaijan. The age and gender composition of the population and its components determine the process of production, distribution and consumption of economic goods produced by society. In order to establish the relationship between the level of economic development of Azerbaijan and demographic trends, let us analyze the statistical data containing the number of the employed and economically active population (Table 2). Despite the significant improvement in the position of women in the labor market, there is a persistent gap between men and women.

The demographic policy of Azerbaijan is aimed at increasing the birth rate and life expectancy, as well as at reducing mortality rates, strengthening and improving the health of the population, and creating a favorable demographic situation through migration. The specificity of the demographic situation in Azerbaijan is that the pace of development of the demographic and economic subsystems is contradictory, which has a significant impact on the formation of the labor market. So, to carry out economic research, age-productivity profiles is important area. Given that older individuals are less productive, an ageing workforce can reduce economic growth and decrease fiscal sustainability. If senior workers' wages exceed their productivity levels, older workers represent losses for the companies. Further, successful attempts to increase the retirement age may demand the removal of seniority-based wage systems (Skirbekk, 2004).

Population projections differ widely in their geographic coverage, time horizon, types of output, and use. Spatial dimensions can range from local areas to the entire world. Local-area projections tend to use shorter time horizons, typically less than 10 years, whereas national and global projections can extend decades into the future, and in some cases more than a century. These long-term projections typically produce a more limited number of output variables, primarily population broken down by age and sex. In contrast, projections for smaller regions often include other characteristics as well, which might include educational and labor force composition,

urban residence, or the household type. The diversity of types of projections is driven by the diversity of users' needs. Commercial organizations often use projections for marketing research and generally want a single most likely forecast. They typically want population classified by socioeconomic categories such as income and consumption habits (in addition to age and sex) and by the place of residence. Government planners may be concerned with population aging and its potential social and economic impact. They may, therefore, desire longer-term projections, and want to know more about the health status and living arrangements of the elderly. The policy community, including advocacy groups, often would like alternatives to a single most likely scenario, including projections that reflect the influence of the policy. For example, those concerned with the environmental impacts of population growth may be interested in the potential for reductions in such growth through population-related policies. In addition, they may want to know what the potential effect of environmental feedbacks on growth might be, a topic recently highlighted as underdeveloped by the National Research Council. Global change researchers often use projections as exogenous inputs to studies on topics such as energy consumption, food supply, and global warming. These studies usually require projections with long time horizons (a century or more) and a range of scenarios rather than a single most likely projection. We focus here on a relatively small subset of projections: longterm, global population projections - that is, sets of projections that may be made at the national or regional level but that cover the entire world. The time

horizon of these projections typically ranges from 50 to 150 years. Demographers often feel uncomfortable making projections farther than a few decades into the future; uncertainty grows with the time horizon, and increases substantially beyond 30–40 years, when most of the population will be made up of people not yet born. Nonetheless, long-term global projections are increasingly in demand by global change researchers and educators. Only a few institutions produce such projections, but research and practice has been evolving rapidly (O'Nelli et al., 2001). Projected demographic changes can have serious socioeconomic consequences associated with changes in the age and gender structure and population size in all categories. Let us consider them.

Firstly, there will be a shift in the structure of demand due to a change in the age structure of the population. This will manifest itself not only in the area of demand for labor market goods and services but also for government services. In particular, with an increase in the population of the pre-retirement and retirement ages, the demand for social and health services will increase. Along with this, an increase in the birth rate will lead to an increase in the number of students in secondary schools, which will lead to an increase in the demand for public services.

Secondly, there will be a decline in the assumption of labor due to the ageing of the population. Thus, a change in population with constant indicators of labor activity will lead to a reduction in the number of economic populations, which in turn will lead to a slowdown in the growth of GDP per capita. Accordingly, the aging population will slow down the growth of the standard of living of the

| Population | The number of the economi- cally active population of the Republic of Azerbaijan an average of thousands of people a year | The number of employed in the Republic of Azerbaijan an average of thousands of people a year | Men, an average per year, thousands of people | Women, an average per year, thousands of people | The size of Azerbaijan's nomi- nal GDP as billion US dollars |
|------------|---|--|--|--|---|
| 2005 | 4380.1 | 4062.3 | 2104.7 | 1957.6 | 13238.7 |
| 2010 | 4587.4 | 4329.1 | 2227.4 | 2101.7 | 52909.3 |
| 2013 | 4757.8 | 4521.2 | 2337.5 | 2183.7 | 65951.6 |
| 2014 | 4840.7 | 4602.9 | 2376.1 | 2226.8 | 69683.9 |
| 2015 | 4915.3 | 4671.6 | 2408.2 | 2263.4 | 74164.4 |
| 2016 | 5012.7 | 4759.9 | 2465.7 | 2294.2 | 75234.7 |
| 2017 | 5073.8 | 4822.1 | 2502.8 | 2319.3 | 52996.8 |

Tab. 3. Dynamics of the number of employed and economically active population

Source: Azərbaycan Dövlət Statistika Kometəsi.

population and the economic growth of the country as a whole (Table 3).

According to the forecasts, the demographic situation in Azerbaijan will develop and will lead to an increase in the number of able-bodied people and, as a result, increase in the rates of economic growth and development.

Thirdly, the volume and structure of savings of the population will change. Therefore, the periods of accumulation and use of savings, in particular, an increase in the proportion of the population in the younger age groups will increase the burden on the economically active population, and the increase in the number of infants in the older age groups increases the burden on the state budget due to the increased need for budget transfers. As a result, the structure of demand for financial resources and their value, as well as market interest rates, are changing.

Fourthly, with a change in the demographic structure of the population, the change will occur in the direction of financial flows and obligations between generations. In particular, the solution of budgetary problems, due to demographic trends contributes to the growth of public debt. On the other hand, the imbalance of intergenerational relations is associated with a change in the ratio of the number of workers and individuals receiving pension benefits under the conditions of the existing pension system, which raises the question of increasing the retirement age.

Furthermore, we would like to dwell on some of the challenges of demographic development that Azerbaijan is facing. Demographic problems are not new in Azerbaijan. These problems matured long ago, in the early 1990s. Just then, during the transition period, the birth rate plummeted. People at that time were willing to conceive children. It was necessary to adapt to the new socio-economic conditions.

In this regard, the effort of the state and society to increase the birth rate is of paramount importance. In Azerbaijan, the decline in the total fertility rate at the beginning of the 2000s to the level of 1.8 (from 2.8 in 1990 and 2.9 in 1991) was replaced by its increase and subsequent stabilization at 2.3. However, in recent years, the value of this indicator has decreased (2011 – 2.4; 2012 – 2.3; 2013–2014 – 2.2; 2015–2018 – 2.1) (Afandiyev, Nagiyev, 2012; Azərbaycan...).

This decrease is probably due to the overestimation of the total fertility rate due to the timing shifts that occurred in previous years. This applies mainly to first births. If in 2005 the total birth rate for first births was 1.221, in 2010 it was – 1.172, then in 2018, it dropped to 0.963. For second births, the total fertility rate in 2018 (0.760) almost did not change compared to 2010, and even increased somewhat in the third, fourth, fifth and subsequent (respectively, from 0.271 to 0.326, from 0.047 to 0.059, from 0.012 to 0.016).

Timing shifts in first births are evidenced by a decrease in the average age of the mother at birth of the first child from 24.4 years in 2009–2010 to 23.0 years in 2018.

The average number of children born in real generations of women obtained according to the census of the population of 2009 and calculated at the end of the reproductive age, based on the hypothesis of the immutability of age-specific birth rates in 2018, is approximately 2.0 in all five-year age groups of women from 15 to 35 years (at the time of 2009 census) and approximately 2.10–2.15 for 35–39-year-old women (Table 4) (Azərbaycan...).

If there are no significant timing shifts in the period up to 2030, except for the possible continuation of the "timing failure" on first births (the total coefficient equal to 0.961 in 2018 is probably somewhat overestimated compared to the proportion of having at least one child in real generations) and the associated small decrease in the total fertility rate for the second births, which are now almost impossible to foresee, the value of the total fertility rate is likely to be close to 2.0 (Azərbaycan...). According to the high variant of the forecast, we can assume

| 0–19 | | | 20–64 | | | 65+ | | | | | |
|--------|------|------|-------|--------------------|------|------|------|--------------------|------|------|------|
| 20181) | 2020 | 2025 | 2030 | 2018 ¹⁾ | 2020 | 2025 | 2030 | 2018 ¹⁾ | 2020 | 2025 | 2030 |
| likely | | | | | | | | | | | |
| 29.7 | 29.2 | 28.8 | 27.7 | 64.2 | 63.8 | 61.5 | 59.7 | 64.2 | 7.0 | 9.6 | 12.7 |
| low | | | | | | | | | | | |
| 29.7 | 29.2 | 28.8 | 27.3 | 64.2 | 63.8 | 61.7 | 60.3 | 64.2 | 6.9 | 9.5 | 12.4 |
| high | | | | | | | | | | | |
| 29.7 | 29.5 | 29.7 | 29.1 | 64.2 | 63.5 | 60.7 | 58.2 | 64.2 | 7.0 | 9.7 | 12.7 |

Tab. 4. Forecast dynamics of the age structure of the population of Azerbaijan for the period until 2030 (%)

¹⁾ the beginning of 2018

Source: Azərbaycan Dövlət Statistika Kometəsi.

a slight increase in the value of the total fertility rate, to about 2.3. According to the low variant of the forecast, we can assume a decrease in the value of the total fertility rate, but apparently not below the level of 1.8 (the minimum for the period from 1990 to 2018). There is no reason to suggest a more significant decrease in the value of this indicator, since there was no steady (not related to timing shifts) reduction, neither in a total fertility rate nor in the number of children born in real generations (conditionally calculated until the end of reproductive age) (Table 4).

Fertility should be considered not only as a replenishment of the population but also as the reproduction of the family and the social values of society. Of course, the population can be reproduced through an increase in migration flows. However, it must be borne in mind that their increase may adversely affect the receiving side in the form of a change in the age and sex structure, the ethnic composition of the population, changes in sociocultural values, the emergence of conflicts, an increase in crime, etc. In the direction of increasing the birth rate, the state has already taken some measures, but we cannot stop there. These measures are only the beginning and require continuation and deployment. It is necessary to continue supporting young families with children and to develop and implement measures to increase fertility. A state program is needed that would be part of the demographic policy of the state, forming and supporting family values and containing measures to increase the prestige of families with two or more children. Now it is very important that in society, and especially among the younger generation, such values as a legal marriage, a full family, and many children are strengthened. The program of forming family values should include television, radio, music channels, and other means of propaganda (Table 5).

| Forecast option | 2018 ¹⁾ | 2020 | 2025 | 2030 |
|-----------------|--------------------|------|------|------|
| low | 2.1 | 2.0 | 1.9 | 1.8 |
| likely | 2.1 | 2.0 | 2.0 | 2.0 |
| high | 2.1 | 2.2 | 2.3 | 2.3 |

Table 5. Forecast of total fertility rate in Azerbaijan

¹⁾ factual data

Source: Azərbaycan Dövlət Statistika Kometəsi.

The well-being of the demographic development of Azerbaijan can be called a decrease in the death rate of the population. The peak of the death rate of the population was observed in 1994 – 7.3 person per thousand people. Aggressive military campaigns that entail the death of civilians and a high level of casualties among the military during bloody battles are factors that caused the peak of mortality, and it is important to note that a high mortality rate is observed among the male population.

Of course, mortality is a natural process. However, if the death rate is less than the birth rate, then this leads to a further increase in the population. Consequently, in order to increase the number of population it is necessary, on the one hand, to take measures to increase the birth rate, and on the other hand, to reduce mortality. What measures can the state take to reduce mortality? We see at least three areas of government activity. First, improving the quality of life and fighting poverty. Secondly, it is the improvement of the quality of medical care and the introduction of preventive measures aimed at maintaining health and reducing possible health losses. Thirdly, measures aimed at promoting a healthy lifestyle and reducing the level of alcohol abuse and drug addiction (Nagiyev, 2007).

4. Conclusion

To summarize, it should be noted that in order to change the dynamics and direction of the demographic processes in Azerbaijan, it is necessary to ensure an increase in the birth rate and a decrease in the death rate of the population. The existing measures aimed at ensuring the demographic policy are to create a stable economic environment for families. Therefore, it is advisable to develop a series of measures to support and develop the demographic policy, which should involve solving housing problems, improving social policies, raising the level of medical and social services, ensuring a decent standard of living, and improving the nation. The solution of the demographic problem in Azerbaijan is one of the priorities, since the demographic process may entail a serious impact on the rates of economic growth, social, cultural, technological development and a decrease instability of the economy of the Republic of Azerbaijan as a whole.

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